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ACADEMIC CONFLICTS IN RESEARCH ARTICLE DISCUSSIONS: THE CASE OF INDONESIAN AND MALAYSIAN AUTHORS

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ABSTRACT

Since academic authors aim to enhance the value of their current research findings compared to earlier studies, understanding how to convince journal gatekeepers is crucial. This study analysed the use of academic conflict units in English research article discussions (RADs) published in reputable Indonesian and Malaysian journals within the discipline of language education. The analysis employed four academic conflict units as an analytical framework. The results revealed that both Indonesian and Malaysian RADs tended to employ proposing claims (PC), but the other three academic conflict units, namely, inconsistency indicator (II), opposing claims (OC), and conflict resolution (CR) were rarely used. Regarding gaining visibility and recognition in international knowledge sharing, this finding appears to contradict English RADs written by native English authors published in highly reputable journals. It also suggests that authors discuss their research findings by establishing a global context, comparing them with international literature, and concluding their research articles by considering broader impacts. This finding may offer insights into the literature and draw implications for designing academic writing instruction.

Keywords: academic conflict units; English research article discussion (RADs); reputable Indonesian journals; reputable Malaysian journals

Introduction

Rhetorical structure within research articles (RAs) has gained widespread scholarly attention. Many linguistic scholars have investigated the abstract section (Andika et al., 2018; Swales et al., 2009), introduction section (Adnan, 2011; Afshar et al., 2018; Alharbi, 2021; Arsyad, 2013; Arsyad et al., 2020; Lu et al., 2021; Rochma et al., 2020; Swales, 1990), methods (Cotos et al., 2017; Kutay, 2016; Zhang & Wannaruk, 2016), results (Williams, 1999), and discussion (Amnuai, 2017; Basturkmen, 2012; Moreno, 2021; Moyano, 2019). These studies suggest that understanding the rhetorical structures of research articles is essential.

Besides, studies on one specific functional move within RAs have also been carried out widely. For example, in the introduction section, some scholars have investigated research promotion (Abdi & Sadeghi, 2018; Moreno, 2021; Wang & Yang, 2015; Warsidi, 2023; Zibalas & Šinkūnienė, 2019), indicating a research gap (Suryani et al., 2015), and establishing a niche (Amnuai, 2021; Lim, 2012). In the discussion section, some linguists analysed the evaluation and comments on results (Lim, 2010; Liu & Lim, 2014), theoretical implications (Cheng, 2020), and academic conflict (Cheng & Unsworth, 2016; Sadeghi & Alinasab, 2020). All these studies indicate that comprehending how the genre of a certain functional move is employed in a discourse community is also pivotal.

However, although many studies have explored rhetorical structures and specific functional moves, academic conflict within RAs has received relatively little attention. Academic conflict involves a discussion of current research findings by comparing and contrasting them with earlier related studies, thus, enhancing the value of current knowledge. Its application allows authors to refine and articulate their argumentative judgments. It has four academic conflict units: proposed claim (PC), inconsistency indicator (II), opposed claim (OC), and conflict resolution (CR) (Cheng & Unsworth, 2016; Hunston, 1993; Sadeghi & Alinasab, 2020). Despite this, our review over the past few years reveals that only two studies have addressed this fundamental issue (Cheng & Unsworth, 2016; Sadeghi & Alinasab, 2020).

Firstly, Cheng and Unsworth (2016) investigated academic conflict units within empirical research article discussions (RADs) in the field of applied linguistics. The method used in the study was a rhetorical analysis using two frameworks (Hunston, 1993; Martin & White, 2003). The results revealed 30 RADs employed functional units of academic conflict: proposed claim, opposed claim, inconsistency indicator, and conflict resolution. In this regard, while 29 of them employed proposed claims, and 28 employed opposed claims, and all 30 RADs employed inconsistency indicators and conflict resolution. This finding emphasises the importance of proposing academic conflict in RADs to enhance the value of current research findings.

Secondly, Sadeghi and Alinasab (2020) academic conflict within RADs was analysed in the applied linguistics discipline within three different contexts: RADs written by native English authors, non-native English authors, and native Persian authors. The study, utilising a theoretical framework of academic conflicts proposed by Cheng and Unsworth (2016), examined 60 RADs, with 20 from each context. The results revealed that native English authors employed the most academic conflict units (ACUs), followed by non-native English authors, while native Persian authors employed the fewest ACUs. These findings indicated that native and non-native English authors discussed their findings in comparison to those found earlier in the literature more than those of native Persian authors. Besides, they tended to resolve conflicts more than those of native Persian authors. These findings may contribute to the teaching of academic writing for publishing RAs, particularly to those for whom English is their second or a foreign language.

However, there are notable limitations in the two studies. For instance, the method sections lack clarity in explaining how data were analysed. The information about indicating academic conflicts was mainly described in the literature or introduction sections, and examples of academic conflicts were described in the method section. In addition, language signals to indicate academic conflicts were described in the results sections.

While academic conflict has been investigated in RADs, many questions remain unresolved and pose urgent issues for further studies. For example, how fundamental is this issue in countries where English is a second or foreign language, such as Malaysia and Indonesia? Is there a statistically significant difference between RADs from those published in English reputable journals? If so, to what extent are the differences? Answering these questions may not only expand the existing knowledge but also provide insights for readers, highlighting that proposing academic conflict units within RADs can critically evaluate knowledge claims (Swales & Feak, 2004), and employ criticism strategies (Salager-Meyer et al., 2003). By doing so, their future research papers may provide more value and more meaningful research findings.

This study investigated how academic conflict units are proposed in English RADs published in reputable language education journals in Indonesia and Malaysia. The purpose of this investigation is to answer the following research questions:

1. To what extent are academic conflict units proposed in English RADs published in reputable Indonesian journals?
2. To what extent are academic conflict units proposed in English RADs published in reputable Malaysian journals?
3. Do these two data sets have statistical differences? If so, to what extent?

Method

Data Sets

This study used 40 English RADs within the discipline of language education, sourced from two different contexts. Specifically, 20 RADs were written by Indonesian academics and published in reputable Indonesian journals, while the remaining 20 were written by Malaysian authors and published in reputable Malaysian journals. Here, reputable journals are defined as those indexed in Scopus with a Scimago journal rank (SJR) of 0.20 or above. The choice of this number of articles was influenced by the desire for representation, considering that some earlier studies employed fewer articles (Kwan, 2006; Soler-Monreal et al., 2011; Warsidi et al., 2023).

To form these corpora, this study adhered to several standard criteria. Firstly, the RAs were written in English and published in Indonesian and Malaysian institutions. Additionally, they were published in Scopus-index journals with an SJR of 0.20 or above and published in the last four years (2020-2023). Furthermore, the selected articles were empirical research articles, discerned by the presence of method sections. They were also attributed to Indonesian academics (for the Indonesian corpus) or Malaysian academics (for the Malaysian corpus), identified by their names and affiliations. Moreover, each article had an explicitly separate discussion section, disregarding any combined sections (e.g., Results and Discussion) to focus on the discussion section.

Based on the above standard criteria for selecting corpora, this study determined three Indonesian Scopus-indexed journals that meet the standard criteria, namely *Studies in English Language and Education (SiELE), Indonesian Journal of Applied Linguistics (IJAL),* and *International Journal of Language Education*. However, because more than 20 RADs from these three journals met these standard criteria, this study only considered 20 of them. Then, this study also determined two Malaysian Scopus-indexed journals for corpus selection, *the GEMA Online Journal of Language Studies,* and *3L: Language, Linguistics, Literature* because only these two journals in language education met the above standard criteria. However, this study selected 20 RADs from these two journals because a large number of RA also met these criteria.

Data Analysis Procedures

To analyse the data in the present study, academic conflict units within both corpora were analysed. In this regard, four academic conflict units from earlier studies (Cheng & Unsworth, 2016; Sadeghi & Alinasab, 2020) were used as an analytical framework: PC, II, OC, and CR. However, earlier studies did not provide a complete understanding of the processes for identifying academic conflict units. Thus, to make these four academic conflict units more understandable, this study establishes the processes for identifying academic conflict units. In this regard, Table 1 describes each unit.

Table 1

A Framework for Analysing Academic Conflict Units within Rads

Academic conflict unit	Definition	Example	The processes for identifying academic conflict units
Proposing Claims (PC)	Proposing claims based on the current research findings	The data **analysis results** of the present study **revealed** that … The **present data** analysis **showed** that … The **present study found** that …	1. Reading a whole discussion section focusing on identifying signals indicating authors' claim 2. Highlighting and coding language signals indicating authors' claim

		This **finding demonstrates …**	3. Ensuring the meaning and context are a proposing claim
Inconsistency Indicator (II)	Contrasting the present finding with those found in earlier studies	**This result is different** from … **This finding contradicts** those … The present research findings **seem in contradiction** with those of … However, **unlike those found in earlier studies**, the present findings seem …	1. Reading a whole discussion section focusing on signals indicating comparing and contrasting authors' findings to those of literature 2. Highlighting and coding comparison and contrast of authors' findings with those of literature 3. Ensuring the meaning and context are comparing or contrasting findings to those of literature
Opposing Claims (OC),	Restating earlier contradictory research findings	**Wang (2009) noted** that none of the RAs employed … **Some earlier findings revealed** that different language backgrounds of RAs may have … **Some studies have indicated** that …	1. Reading a whole discussion section focusing on signals indicating comparison and contrast. However, unlike II, authors in this manner focus on literature as subject for discussion. 2. Highlighting and coding OC 3. Ensuring the meaning and context are discussing literature that is different from the present study
Conflict Resolution (CR)	Presenting possible reasons for the contradiction from those found in earlier studies. Here, the present	**One of the possible reasons** for the difference is that … **The findings are possibly** that … **The reason for these differences may** be because the context of the present study is different from …	1. Reading a discussion section focusing on signals about to stop academic debates, such as stating possible reasons for the contradiction. In this manner, authors tried to elude further debates.

	author attempts to describe the reason for the contradiction.	2. Highlighting and coding the signals indicating CR 3. Ensuring the meaning and context are finding possible reasons for the inconsistencies

Inter-rater Reliability

Thus, since the analyses of academic conflict units in the present study employed this analytical framework (Table 1), misanalyses, and misinterpretations might be easily avoided. Besides, the first author analysed the academic conflict units using the framework while the second author checked the results of the analysis. However, to ensure the inter-rater reliability, the first author provided three example findings from each academic conflict unit, which means 12 examples from all four academic conflict units. The purpose of providing these examples is to ensure that both authors have agreement in understanding these four academic conflict units. Then, the result revealed that both authors have 100% agreement. More details regarding the agreement of data analysis samples are presented in Table 2.

Table 2

Authors' Agreements in Relation to Inter-Ratter Reliability

Academic conflict units (ACU)	The findings from the first author	The second author's agreement	Match
PC	3	3	All match
II	3	3	All match
OC	3	3	All match
CR	3	3	All match
Total match		12	
Total counts		12	
Inter-Ratter Reliability		100%	

Results

This section reports the results to answer the three research questions in the study. Table 3 shows the frequency and mean for academic conflict units found in English RADs published in reputable Indonesian and Malaysian journals. Firstly, academic conflict units are only employed in a small portion of Indonesian RADs. Of the four academic conflict units, only PC was employed in all Indonesian RADs and had a mean number of 4.2, while the other two units (II and CR) were seldom used in Indonesian RADs. However, one unit (OC) was not used in Indonesian RADs. Secondly, academic conflict units also hardly appeared in Malaysian RADs. Of the four academic conflict units, only PC predominated in the corpus and had a mean of 3.85, while the other three were rarely found in the data. Thirdly, these two data sets seemed to be similar, as they tended to employ PC but neglected the other three academic conflict units.

Table 3
Frequency and Mean for Academic Conflict Units Found in English RADs Published in Reputable Indonesian and Malaysian Journals

Academic conflict units (ACUs)	English RADs published in reputable Indonesian journals		English RADs published in reputable Malaysian journals		P-Value
	Total numbers	Mean	Total numbers	Mean	
PC	84	4.2	77	3.85	0.653
II	7	0.35	3	0.15	0.321
OC	0	0	3	0.15	0.354
CR	1	0.05	2	0.10	0.982

As shown in Table 3, academic conflict units were only partially employed in both Indonesian and Malaysian corpora. Of these four units, PC was the most frequently used in both data sets, while the other three units were rarely employed in them. After that, the statistical analysis (p-value above .05) indicates that there is no significant difference between Indonesian and Malaysian RADs regarding the employment of the four academic conflict units. Further details of academic conflict units found in both data sets and their statistical comparisons are presented in each of the following units:

Proposing Claims (PC)

In this functional move, authors propose claims based on their current research findings. This functional move appeared in all data. It appeared higher in the Indonesian corpus than in the Malaysian corpus (4.2 and 3.85 respectively). However, the difference did not reach statistical significance because the *p*-value (0.653) is higher than the standard alpha value (0.05) (see Table 3). This finding implies no statistical difference between the Indonesian and Malaysian corpus in employing PC. The ways authors employed this functional move are exemplified in (1) to (6). The bolded texts indicate the signal words of the functional move “proposing claims”.
Indonesian corpus:

(1) **Based on the findings of this research, it is found that** the Foreign and Defence Minister of Indonesia employed three forms of discourse markers: textual discourse marker, interpersonal discourse marker, and cognitive discourse marker. Indonesian corpus 02

(2) **The finding showed that** both RLP and DJW were effective in improving the writing ability of students with different self-esteem. Furthermore, the analysis indicated that the students in the RLP class performed better than those in the DJW class. Indonesian corpus 04

(3) Furthermore, **based on the statistical analysis gained from pre-test and post-test scores of students with high and low self-esteem, it could also be inferred that** the implementation of the DJW technique could also improve the student's writing performance. Indonesian corpus 04

Malaysian corpus:

(4) **The findings essentially revealed several interesting phenomena** about the literacy aptitudes of the participants. Among the things realised in this study was that in exploring the horizons of possibilities of the short story, the participants were productive in using different ways of thinking involving critical, creative, and imaginative thinking. Malaysian corpus 01

(5) **The findings of this study indicate that** 54.1% of the respondents found the criterion 'how interesting the oral history text is' played a significant role during the evaluation process. Malaysian corpus 02

(6) **The findings revealed that** most of the respondents had difficulties with the prescribed teaching materials provided by the Ministry of Education. This can be implied from viewpoints expressed by respondents 3, 5, 6, and 7 (refer to Table 2). Malaysian corpus 06

Examples (1) to (3) were found in the Indonesian corpus, while Examples (4) to (6) were found in the Malaysian corpus. In this regard, the authors proposed claims based on their findings by stating "the findings revealed" and "the findings indicate".

Inconsistency Indicator (II)

In this functional move, authors contrast their current findings with those found in the literature. Unfortunately, this functional move rarely appears in both data sets. In the Indonesian corpus, it appeared a maximum of 4 and a minimum of 0 times, while in the Malaysian corpus, it occurred a maximum of 2 and a minimum of 0 times. Its mean value was 0.35 in the Indonesian corpus, but 0.15 in the Malaysian corpus. Thus, the Indonesian corpus employed this functional move more than the Malaysian corpus. However, the difference was also not statistically significant because our inferential statistic test showed that the *p*-value (0.321) is higher than the alpha value (0.05) (see Table 3). The ways authors contrasted their findings with the literature are presented in examples (7) to (12):

Indonesian corpus:

(7) **This result is different from that** of Widodo et al. (2020). Their study shows that the students applied the rhetorical structure in closing their speech. This difference might be explained by the fact that the present study analysed the speech in more detail, focusing not only on the speech in general but also on the speech into three structures, i.e., introduction, content and conclusion. Indonesian corpus 06

(8) **These findings do not really support McPhee and Cushman's (1980) argument** indicating that predisposition to action and affective evaluation are the same. Indonesian corpus 10

(9) **It also contradicts** Toledo's (2005) argument that one who learns a language should have knowledge about genres in the language in order to obtain the purpose of communication successfully because this study finds that genre with the presence of other factors does not determine reading comprehension. Indonesian corpus 14

Malaysian corpus:

(10) **The finding, however, contradicts** Burkhauser and Lesaux's (2017) earlier findings in which experienced teachers, as opposed to novice teachers, were found to have a better ability to adapt curriculum materials by extending curriculum activities and integrating different materials and activities. Malaysian corpus 06

(11) **However, the findings do not bear a resemblance to what** Grossman and Thomson (2008) found; they found that novice teachers were reported to have closely followed the prescribed materials with limited adaptations. Malaysian corpus 06

(12) **Although the findings of this study** which are based on an analysis of argumentative discourse **differ from those reported** by Noor (2001) and Hinds (1990) who focused on expository discourse, some cross-genre similarities need to be highlighted here. Malaysian corpus 10

In examples (7) to (12), some text is bolded to show signal words indicating a contradiction between the current research findings and those found in earlier studies. In this regard, authors may use signal words such as "this finding is different from," "this finding contradicts," "this finding does not support," "these findings differ," or other language signals. However, again, this functional move was rarely employed in both corpora.

Opposing Claims (OC)

In this functional move, authors re-explain earlier contradictory research findings. The purpose may be to debate or go against the authors' current research findings. Unfortunately, this functional move was absent from the Indonesian corpus (0), but in the Malaysian corpus, it had three appearances with a maximum of 2 and a minimum of 0 within one RAD. Its mean value was 0 in the Indonesian corpus, but 0.15 in the Malaysian corpus. Although this functional move only appeared in the Malaysian corpus, the difference between both corpora in the use of OC was not statistically significant because our inferential statistic test showed that the *p*-value (0.354) is higher than the alpha value (0.05) (see Table 3). The ways authors re-stated earlier contradictory research findings were exemplified in the Malaysian corpus in (13)-(15) as follows:

(13) **Although Hyland (1990, p. 70) has highlighted the role of "gambits**" in the argumentative genre in English, **the researchers have proposed a new linguistic profile that has not been reported** in previous research, in that it illustrates the five key functions of 'arousing readers' interest' in relation to their associated resources in the argumentative essays (see Table 3). Malaysian corpus 10

(14) **Keramati et al. (2019) found that self-mentions** in three applied linguistics journals increased in the 1996 to 2016 period, **but the frequency is still far** less than boosters, hedges, and attitude markers,

despite a decrease in the use of these three markers. Malaysian corpus 16

(15) **Moreover, Khedri (2016) also found frequent use of self-mentions** in the method section of applied linguistics articles, **but psychology articles have more self-mentions** in the introduction section, and environmental engineering and chemistry articles have the most self-mentions in the results and discussion sections. Malaysian corpus 16

The opposing claims serve to contrast current findings with earlier claims, and by doing so, readers may feel encouraged to read the discussion further.

Conflict Resolution (CR)

In this functional move, the authors attempted to reconcile the disagreement between current findings and those of earlier research. Unfortunately, authors in both data sets rarely utilised this functional move in their discussion. It had only one occurrence in the Indonesian corpus (with a mean of 0.05) and two appearances in the Malaysian corpus (with a mean of 0.10). Its appearances also indicate statistically insignificant differences between the Indonesian and Malaysian corpus because the *p*-value (0.982) is higher than the alpha value (0.05) (see Table 3). The ways authors employed this functional move are exemplified in (16)-(18) as follows:

Indonesian corpus:

(16) **In other words, individuals' gender, age, and education level factors cannot be considered the absolute factors that make changes in attitudes** and behaviours when delivering health protocol messages by using their mother tongue audio visually. Indonesian corpus 10

Malaysian corpus:

(17) In the present study, most of the self-mentions in the political science articles are in the method section, similar to the applied linguistics articles in Khedri's (2016) study. **Political science is in the arts discipline, like applied linguistics. It is generally considered as a social science (not a pure/applied science**). In the present study, political science researchers highlight their role in the research process using first-person pronouns. In so doing, they emphasize their ownership of the methodology and justify why the method was chosen (Khedri, 2016). Malaysian corpus 16

(18) **The strong writer presence** in the method section of political science articles **is possibly reflective of the arts inclination toward**s an author-centred approach as opposed to the object-cantered approach of the sciences. Malaysian corpus16

In examples 16 to 18, the authors attempted to find a reason for the contradiction and reconcile their disagreement with literature to summarise their discussion. In (16), the author presented that several factors cannot be overgeneralised to make a claim. In (17), the author attempted to present the similarities in "political science and applied linguistics" as one discipline of arts. In (18), the author intended to create speculation about their disagreement by stating "possibly." All these examples indicate that the authors intended and attempted to reconcile their disagreements with the literature. However, this functional move was rarely found in both data sets of the present study.

In short, academic conflict units hardly appeared in the Indonesian RADs. Among the four academic conflict units, only PC was the most employed in the Indonesian corpus, while II and CR were rarely used. Furthermore, OCs were not utilised in the Indonesian corpus. Similarly, academic conflict units were also only partially employed in Malaysian RADs, with PC being the most frequently used unit, while the other three academic conflict units were rarely used. Our inferential statistics analysis revealed no statically significant difference between Indonesian and Malaysian corpus in employing academic conflict units, including in employing PC, OP, II, and CR.

Discussion and Conclusion

The study showed that academic conflict units were hardly used in the Indonesian and Malaysian corpus. In both corpus, PC was the most employed unit, while the other three units were rarely utilised (II, OP, and CR). Our statistical analysis also revealed that these two data sets did not have significant differences.

As these two data sets tend to be similar more than to be different, thus, in this discussion, we present the similarities between these two data sets. The first similarity is that both tended to propose claims more than the other three academic conflict units when discussing their current research findings. The next similarity is that, however, both rarely compared their research findings with those of earlier literature (II and OC), and thus, this fact may explain the infrequent presentation of solutions for the debate (CR). The reasons may be writing traditions and journal conventions. Regarding writing tradition, countering research findings is considered impolite in Indonesian culture (Adnan, 2010), which may also apply to Malaysian culture because of their geographic proximity and historical connections. For example, their national languages are closely related, and both countries' religious majority is Islam. In this situation, contrasting findings to those written by more senior academics are considered impolite, and thus Indonesian authors (Adnan, 2011; Arsyad & Adila, 2018; Arsyad & Arono, 2016; Mirahayuni, 2002), as well as Malaysian authors (Ahmad, 1997; Zainuddin & Shaari, 2021), tend to avoid critics, evaluation, or countering those of earlier research findings. Besides, Malaysian authors rarely present unexpected outcomes or inconsistent indicators (II), and thus, they seldom describe the reasons for the contradiction (Loi et al., 2016).

The RADs in the present study tended to employ more PC, interpret their findings, and support them with either data or literature. This result means that the main purpose of the discussion section was to announce the analysis results and convince readers that the current research findings were essential, interesting, and consistent with earlier studies (Arsyad et al., 2020). However, in the present study, the authors related their findings to the literature; nonetheless, their purpose for employing literature was not to establish a direct comparison between their current findings and those in the existing literature. Instead, they used literature to support their claims and reference experts, and, in doing so, aimed to convince their target readers of the significance, interest, and logical coherence of their current research findings. Their objective was to encourage readers to accept their findings rather than inviting challenges in a “reference proposition” (Samanhudi & O'Boyle, 2022). In doing so, the discussion section of RAs in the Indonesian and Malaysian contexts could still be written without any reference (Samanhudi & O'Boyle, 2022), and some RADs in the present study also supported this claim.

In contrast, the present finding seems inconsistent with academic conflict units employed in English RADs (Cheng & Unsworth, 2016; Sadeghi & Alinasab, 2020). For example, in the present findings, three academic conflict units (II, OC, and CR) were rarely employed in RADs. On the other hand, in English RADs, II (average 1.70), OC (average 1.75), and CR (average 2.1) occurred in each RAD, which means that comparing and contrasting current research findings is essential in reputable English journals (Sadeghi & Alinasab, 2020). This comparison indicates that, while the Indonesian and Malaysian authors in the present study rarely or even hardly ever compared their current research findings with those found in literature, English RADs in reputable international journals tend to employ this functional move (Arsyad, 2013) by presenting inconsistency indicators and opposed claims (Cheng & Unsworth, 2016; Sadeghi & Alinasab, 2020) to enhance the theoretical value of current knowledge findings (Cheng, 2020) and to promote the novelty of current research findings (Cheng, 2021).

The reason for these differences may be that the authors’ purposes in the present study were different from those of native English authors, as studied by Sadeghi and Alinasab (2020). The authors in the present study may have aimed to solve practical problems and expected their research findings might contribute to overcoming practical problems, as expected by the government (Dimyati, 2020), and making recommendations for government policy (Warsidi, 2021). In contrast, native English authors, as studied by Sadeghi and Alinasab (2020), may aim to interpret their findings deeply. To find meaningful interpretations and to enhance the value of the current research findings, native English authors compare their current findings with those found in the literature. By doing so, they can elaborate and explore the potential contribution of their current research findings to create more meaningful results and advance knowledge production.

The findings of the present study may practically be used to design teaching material for those taking a course in English for publishing purposes. Besides, it may also be used as a practical guide when writing a discussion section to conceptualize a global context and incorporate international literature, and thus, the discussion may result in a broader impact.

It is important to note that this study is restricted to the analysis of academic conflict units in only two different contexts. Given these limitations, further studies examining academic conflict units in the RADs across diverse disciplines, different language backgrounds, and discourse communities are encouraged. Such studies can contribute to, strengthen, confirm, or expand upon the findings of the present study.

This approach may lead to a more comprehensive understanding of genre knowledge concerning academic conflict units in RADs.

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EFFECT OF MULTIMODAL LITERACY ON READING ABILITY OF INDONESIAN JAVANESE LEARNERS

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ABSTRACT

Over the past few years, the use of multimodal literacy in education has emerged as an effective educational tool in language instruction worldwide. As a result, language instruction methods have been replaced by conventional instruction with multimodal literacy, which has the potential to enhance learners' engagement and comprehension of reading, particularly Javanese script. This quasi-experimental study aims to determine the effect of using multimodal literacy on reading ability of Javanese script learners and to find out Javanese learners' attitudes of using multimodal literacy on their reading ability. The sample included 72 language learners at a senior high school in central Java, Indonesia. The pretest and posttest mean scores in Javanese script reading ability between the control group and the experimental group were analysed. The results indicate that the use of multimodal literacy as an approach effectively enhances the ability and fluency of Javanese script reading in underperforming learners. Additionally, learners reported positive attitudes towards multimodal literacy. This study suggests that multimodal literacy may be integrated into the Javanese language curriculum as it is more relevant to students' learning preferences, and it is more responsive to diverse learning modes.

Keywords: Indonesian Javanese learners; multimodal literacy; reading ability; instruction approach; quasi-experimental study

Introduction

While digital technology for language instruction has advanced rapidly, most teachers still use the conventional teacher-centred model (Agrahari, 2016; Oo et al., 2023; Rafiq et al., 2022). It is also reflected in language reading instruction in Indonesia, particularly Javanese language in schools, where many teachers still use the traditional methods (Sukoyo et al., 2023). This method involves lecturing and drilling with reading material limited to Javanese language textbooks. This method can be rather monotonous and leads learners to lose interest in reading Javanese script since it is considered stressful and tedious. Their loss of interest in reading also contributes to their low mastery of reading abilities. It indicates that the instruction methods used by teachers are less effective. Most teachers still use this method because they could not explore more innovative instruction approaches that align with the latest developments in education. Teachers' inability to explore technology-based learning media results in boredom among learners during learning. As a result, many learners do not enjoy their learning experience and are inattentive during class, which in turn also leads to lower reading ability scores (Malacapay, 2019).

Where conventional method instructions are concerned, Murodullayevna (2023) argues that in the digital era, this method is no longer sufficient to meet the demands of today's learners. Today's learners, known as digital natives, are literate not only in the traditional sense but also in an innovative way (Ekşi & Yakışık, 2015). This type of literacy involves texts that incorporate static and dynamic images, gestures, audio, spoken language, and written language. It will hinder learners' ability to improve their reading abilities if teachers in schools continue to apply ineffective instruction methods. Hence, teachers are required to be keen and selective in selecting Javanese reading methods that can be useful and can accommodate various needs of learners. To address this issue, teachers need to adopt modern instruction methods to keep up with current trends and cater to learners' diverse learning styles. This is essential in supporting the implementation of the current Merdeka Curriculum in Indonesia, which emphasises differentiated learning to fulfil different needs among learners. In this regard, multimodal literacy emerges as an approach that provides different types of learning media (Bezemer & Kress, 2016; Forceville, 2020; Lim & Tan, 2018) which reinforce the essence of differentiated learning that focuses on meeting learners' diverse needs (Brevik et al., 2018; Elliot et al., 2020; Moosa & Shareefa, 2019).

The multimodal literacy has been identified as a learner-friendly language instruction approach (Wijewantha, 2021). This is due to the incorporation of different learning materials and methods which ensures a variety of learning experiences. This combination can result in better memory retention, increase learners' enthusiasm, motivation and comprehension. Thus, this approach can contribute to better student performance. Prior studies have shown that the use of multimodal literacy has a positive effect on learners' reading ability (Astarilla & Warawan, 2018; Fälth et al., 2023; Yimwilai & Phusri, 2018; Wang et al., 2023). Sakulprasertsri (2020) also found that this approach is relevant to different learning styles in the 21st-century era. The use of multimodal literacy is an appropriate approach to enhance learners' Javanese reading ability. Yet, this approach has not gained attention from Javanese language teachers as they only focus on designing learning media to improve Javanese reading ability. In fact, using learning media will be much more optimal if it is designed with an appropriate learning model.

The study aimed to examine the effect of a multimodal literacy approach on high school learners' ability to read Javanese script in Central Java, Indonesia. The research questions are:

(1) Is there a significant difference between the pretest and posttest mean scores in reading ability of Javanese script between the control group and the experimental group?
(2) To what extent does the use of multimodal literacy affect learners' ability to read Javanese script?
(3) What are learners' attitudes toward the use of multimodal literacy approach in their lessons?

Theoretical Framework

Multimodal literacy, a concept rooted in social semiotics, involves the study of a language by integrating multiple modes of meaning (Mills & Unsworth, 2017). In the context of a social semiotic approach, modes are the resources or organised semiotic structures shaped by society and culture for creating meaning. The application of multimodal literacy in this study is aimed at enhancing learners' involvement, particularly in improving their oral reading abilities in Javanese script. The study draws from Kennedy's (2020) proposed five-phase approach for integrating multimodal literacy into Javanese script reading instruction, which includes instructional games, think-pair-share activities, case-based learning, individualised diaries, and multimedia research projects. These instructional strategies are chosen intentionally to incorporate various modes of communication, including visual, auditory, and kinaesthetic elements, to create an engaging and immersive learning environment.

The first approach, educational games, engage learners in learning Javanese script by offering online activities and in-class exercises. Through this approach, learners are encouraged to participate in interactive games and complete exercises that focus on Javanese script. The second approach, think-pair-share, intends to boost learners' interaction, participation, and critical thinking. This approach involves collaborative learning, where learners choose readings from multimodal e-books with Javanese script texts. They then collectively analyse the messages conveyed via the texts, while also improving their oral reading skills and addressing challenges encountered using the multimodal e-books. Throughout this process, teachers provide explanations using presentation slides and teaching materials. The third approach involves paired Javanese reading sessions, where learners read aloud selected texts in groups. After every three groups, the teacher reviews their practice notes using case-based learning. Learners receive detailed explanations for any difficulties faced in reading and they also identify unfamiliar vocabulary for discussion. The fourth approach focuses on personalised journal entries. Learners are required to keep daily Javanese script literacy journals to encourage consistent practice and reflection. These journals serve as a way for learners to track their progress in reading Javanese script texts on a daily basis. Teachers diligently review and correct these journals, offering individualised feedback to improve learners' learning experiences and oral reading skills. The final approach involves multimedia research projects, where learners create presentations of Javanese script text content using infographic-based multimedia formats. Through this approach, learners engage in research and create informative presentations that showcase their understanding of Javanese script.

Literature Review

Multimodal literacy has gained significant attention in global education. With the rapid development of technology, teachers and researchers increasingly recognise the crucial role of multimodal literacy in improving learners' learning experiences and skills. This recognition stems from the understanding that traditional reading skills alone are insufficient to prepare learners for the complex communication demands of the digital age. Learners with multimodal literacy can engage with learning materials in ways that align with their individual preferences and styles (Li, 2022). By integrating various communication modes, such as text, photos, videos, and interactive features, learners can effectively engage with learning materials based on their individual preferences and styles leading to enhanced comprehension, higher academic achievement and learners' autonomy, and improved motivation to learn (Ganapathy & Seetharam, 2025). According to Freyn (2017), the integration of different learning modes fosters creativity and meaning making, thereby enhancing the learning environment. Pan and Zhang (2020) suggest that by combining words, images, videos, and other audiovisual symbols in the teaching process, through the rich input of information and the stimulation of different senses, multimodal teaching can enhance learners' reading abilities and facilitate their deep understanding and effective communication of the material. Yimwilai and Phusri (2018) discovered that using multiple modes, such as printed materials, pictures, audio, music, videos, and advertisements, a student-centred multimodal environment can be created in the classroom, offering new advantages for learning and presenting multiple representations of information. Furthermore, Sakulprasertsri (2020) found that incorporating various teaching methods, such as visuals, texts, and animated images, resulted in increased student engagement during lessons. This was because the class became more enjoyable, interactive, and dynamic. Therefore, the adoption of multimodal literacy in reading instruction is effective, as it allows learners to select learning materials based on their modality preferences (Al Fajri, 2020; Nouri, 2019), ultimately enhancing their comprehension, participation, concentration, and interaction (Lian, 2023; Viray, 2023).

Multimodal literacy has been widely used by scholars to enhance reading ability in language instruction. Previous studies (e.g., Anari & Abudaeedi, 2019; Baharani & Ghafournia, 2015), which applied multimodal text on reading instruction for Iranian learners, have shown significant improvement in reading comprehension achievement. Similarly, Cahyaningati and Lestari (2018) have shown that a multimodal approach can elevate the English reading comprehension of engineering students. Likewise, Boshrabadi and Biria (2014) observed a positive impact on reading comprehension skills and motivation among Iranian high school learners through a multimodal approach, fostering extensive reading habits. Recent research by Sherwani and Harchegani (2022) reported positive effects on Iraqi EFL learners' reading comprehension skills through the incorporation of pictures and video. Pan and Zhang (2020) demonstrated improved English reading proficiency and increased participation among Chinese learners through multimodal teaching. Furthermore, Bao (2017) and Lewis III and Lewis (2020) highlighted the creation of a dynamic classroom atmosphere and enhanced learners' motivation through multimodal reading instruction. Multimodal approach to the teaching of reading have also been found to promote learner anatomy and foster critical thinking skills (Varaporn & Sitthitikul, 2019). These findings suggest that employing multimodal literacy is effective in enhancing learners' reading abilities. The effectiveness of multimodal literacy in reading instruction had fostered positive attitudes towards learning (Fadilah et al., 2022; Ilmi & Dewi, 2022; Lian, 2022; Pan & Zhang, 2020; Sakulprasertsri, 2020; Varaporn & Sitthitikul, 2019; Yimwilai & Phusri, 2018).

Despite the widespread use of multimodal instruction in reading, there is a lack of studies examining its application in local languages, especially among Indonesian Javanese learners. Existing research has mainly focused on specific contexts like EFL classrooms, leaving a gap in understanding the impact of multimodal literacy on multimodal literacy on learners' Javanese reading ability. Therefore, it is crucial to investigate the impact of a multimodal literacy approach on the reading ability of Javanese learners in order to fill this gap and improve teaching practices in literacy instruction. By studying the effects of multimodal approaches on Javanese learners' reading abilities, teachers can gain valuable insights into effective teaching methods that are tailored to diverse linguistic and cultural backgrounds. This research has the potential to promote a more inclusive and effective literacy instruction, supporting the academic success of Javanese learners and contributing to the overall improvement of educational practices in Indonesia.

Methodology

A quasi-experimental design was used to examine the effect of a multimodal literacy approach on high school learners' ability to read Javanese script in Central Java, Indonesia. The quantitative data consisted of learners' pretest and posttest scores for reading Javanese ability tests and scores obtained from online questionnaires.

Participants

The participants were 72 Javanese language learners from senior high schools in Central Java, Indonesia, of which (N=43) were female and (N=29) were male. Most learners were at the age of 16 (50 or 69.44%), and 6 (or 8.33%) were above 17. In addition, 36 learners were in the control class and 36 in the experimental class.

Research Instrument

The instrument used in this study was a reading test that learners had taken orally. There were two exams: a pretest and a posttest. Using standard methods, the teacher created the pretest to examine the learners' reading abilities. Conversely, the posttest was administered using texts selected by each group and taught using a multimodal literacy approach. Individual post-testing allowed learners to read the book aloud to evaluate their reading comprehension after being taught via multimodal literacy. In addition, 14 questionnaire items were collected following an experiment to measure learners' opinions toward practicing multimodal literacy. There were four response scores on the questionnaire: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The statements were modified from the questionnaire developed by Yimwilai and Phusri (2018).

Research Procedures

During the academic year 2023–2024, this study was carried out across eight weeks, from July to September 2023. In the pretest phase, each participant completed a 15-minute pretest and turned in their pretest assignment using a Google Form. The learners read aloud in Javanese script as they went through the traditional process of finishing the reading test. The researchers then examined the learners' scores to evaluate the pretest outcomes.

The researchers notified the teacher during the experimental phase, beginning in the second week of classes. They set up a room for a six-week multimodal literacy-based Javanese letter-reading practice. The learners were seated in two groups according to the researchers' seating arrangements during the implementation phase. The learners gathered with their group members and listened as the researchers provided explanations and instructions on learning the material through multimodal literacy. Before this implementation, the learners had been introduced to the letter form of the Javanese script and how to read it by their classroom teacher. They were also introduced to the learning log and alternative Javanese multimodal e-books containing concise materials. The performance consisted of five reading comprehension phases, including educational games, think-pair-share activities, case-based learning, personalised journal entries, and multimedia research projects. The progress of each group was tracked using their learning logs.

Next, each group chose a text and used a multimodal literacy approach to study it. Then, the learners took a posttest to assess their reading comprehension by reading the text orally. Afterward, the learners in the experimental group filled out questionnaires to gather information about their attitudes toward the instructional strategies used in the study.

Validity and Reliability

The study instruments were tested for validity and reliability. The validity of each item was checked using the Pearson product-moment correlation coefficient. The 13 items are valid because $r > .339$, and the reliability is good because the Cronbach Alpha score is .920.

Data Analysis

First, a normalised gain (N-Gain) test was conducted to determine the difference in the average pretest and posttest scores. An independent sample t-test (see Table 1) was used to compare the means of both the experimental and control groups. Second, to understand the effect of multimodal literacy in the experimental group, the researchers employed a general linear regression (see Table 2), followed by an effect size test (see Table 3). In this case, the researchers combined Cohen's and Sawilowsky's (2009) effect size interpretations. Third, to find out the learners' perceptions, this study used an online questionnaire with five items of closed statements analysed using descriptive statistics.

Table 1

N-Gain Interpretation (Hake, 1999)

Percentage (%)	Meaning
g < 40	*Ineffective*
40 – 55	*Less Effective*
56 – 75	*Quite Effective*
g > 76	*Effective*

Table 2

Regression Coefficient Interval Interpretation (Frost, 2019)

Coefficient Interval	Coefficient Correlation
0.0 < |r| < 0.3	*Little correlation*
0.3 < |r| < 0.5	*Low correlation*
0.5 < |r| < 0.7	*Moderately correlated*
0.7 < |r| < 0.9	*Highly correlated*
0.9 < |r| < 1.0	*Very highly correlated*

Table 3

Effect Size Interpretation

Size (*d*)	Interpretation
0 < 0.20	Very week (Sawilowsky)
0.20 < 0.50	Week (Cohen)
0.50 < 0.80	Moderate (Cohen)
0.80 < 1.20	Strong (Cohen)
1.20 < 2.00	Very (Sawilowsky)
2 or more	Extremely strong (Sawilowsky)

Results

Differences in Javanese Script Reading Ability Using Conventional Method and Multimodal Literacy

The difference in learners' reading ability in Javanese script can be observed by comparing two groups, the control group (using a conventional method) and the experimental group (using a multimodal literacy approach). This comparison can be measured through the N-Gain scores derived from the difference between pretest and posttest scores. Before conducting the independent t-test, it is necessary to perform prerequisite tests such as normality and homogeneity tests. The results of the normality test indicate that the significance values for both the control class (p=.200) and the experimental class (p=.182) are greater than p = 0.05. This suggests that the data in both classes is normally distributed. Additionally, the homogeneity test using Levene's Test for Equality of Variances yielded a significance value of p=.187, which is also greater than .05. Thus, it can be concluded that the learners in the experimental class have abilities that are comparable to those of the learners in the control class before the start of the experiment.

According to Table 4, the experimental group had a mean N-Gain score of 78.92 (M = 78.92, S.D. = 7.42), placing it in the high category. In contrast, the control group had a mean N-Gain score of 68.59 (M = 59.61, S.D. = 10.24), categorising it as low. The improvement in the mean N-Gain score (78.92%) after the treatment indicates that the multimodal literacy approach is an effective learning model for enhancing Javanese script reading abilities, with a minimum N-Gain score increase of 67% and a maximum increase of 90%. However, conventional learning methods are also reasonably effective (68.59%) in improving Javanese text reading abilities, with a minimum N-Gain score increase of 49% and a maximum increase of 89%. However, the experimental group using the multimodal literacy approach achieved better scores in reading Javanese script compared to the control group.

Table 4
Tests of Normality Result

	Treatment	Mean	Std. Deviation	Kolmogorov-Smirnov[a]		
				Statistic	df	Sig.
N-Gain score A	Control	69.59	10.246	.089	36	.200*
	Experiment	78.92	7.420	.123	36	.182

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Effects of Using Multimodal Literacy on Reading Javanese Script Ability

The effect of using a multimodal literacy approach on learners' ability to read Javanese script was further explored using a correlation test. The correlation test requires the data to meet the prerequisites of normality and linearity. The results of the linearity test indicate a Deviation from linearity significance value of .059, which is greater than 0.05. Therefore, it can be concluded that there is a significant linear relationship between the pretest score variable (X) and the posttest score variable (Y).

Table 5 shows that the significance in the experimental group (*p*=.000) is less than .05, so the null hypothesis (Ho) was rejected. This means that multimodal literacy affects learners' ability in reading Javanese script. In addition, the value of R square (R^2)) = .597, where R square is a value that shows the percentage contribution of the independent variable in influencing the dependent variable. This value indicates that 59.7% of the results of learning to read Javanese script are affected by the use of the multimodal literacy learning model, while other variables influence the remaining 40.3%.

Table 5

Correlation Test Results

	N	R	Correlation (R Square)	Sig.
Experiment Pretest and Posttest	36	.773[a]	.597	.000

a. Predictors: (Constant), Pre-test experiment group

Furthermore, Table 6 provides the regression equation for the experimental group, Y = 66.568 + 0.600X. This equation indicates that if learners' scores before receiving multimodal literacy treatment increase by one unit, their learning outcomes will increase by 0.600 after the treatment. Additionally, the coefficient value of the variable suggests that the multimodal literacy-based learning model significantly affects learners' ability to read Javanese script.

Table 6

Coefficients Correlation Test Results

Coefficients[a]

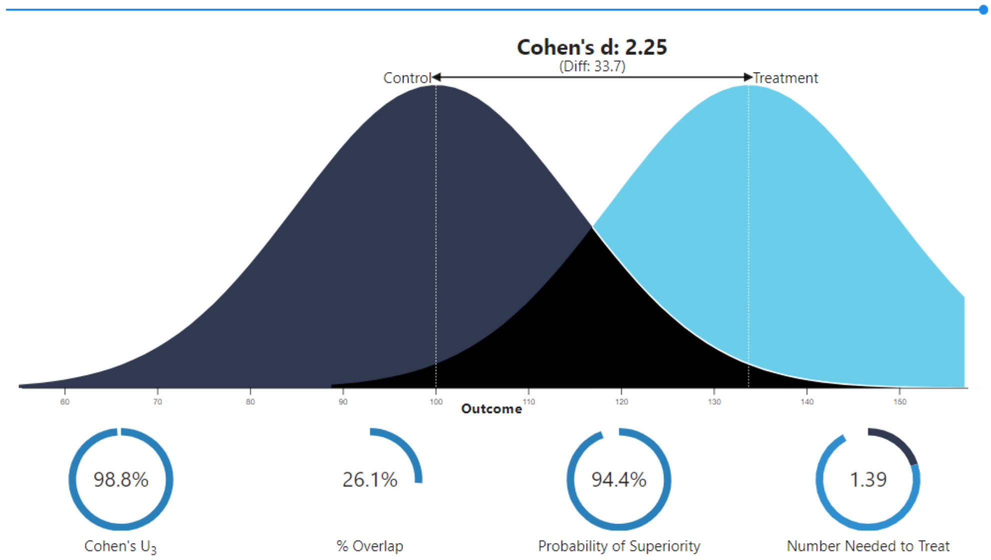
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	66.568	2.677		24.868	.000
	Pre-test experiment group A	.600	.085	.773	7.097	.000

a. Dependent Variable: Post-test experiment group A

Cohen's d-effect size test reveals that the treatment effect between the experimental and control groups is 2.25 (see Figure 1). According to the effect size interpretation table, 2.25 falls into the > 2.0 category. It indicates that using multimodal literacy as a treatment strongly effects the mastery of Javanese script reading abilities. Specifically, 98.8% of learners in the experimental group who received the multimodal literacy treatment performed on par with the control group's average (Cohen's U3). There is a 26.1% overlap between the two groups. Furthermore, there is a 94.4% likelihood that a randomly selected learner from the experimental group will outperform a randomly selected student from the control group (likelihood of superiority). Additionally, to achieve better results in the experimental group compared to the control group, at least 1.4 learners, on average, need to be educated. It means that if there are 100 learners in each group and we assume that 20 learners achieve good results in the control group, then 20 + 72.0 learners in the experimental group will achieve good results.

Figure 1

Effect Size Result



Learners' Attitudes Using Multimodal Literacy

The learners' attitudes towards reading Javanese script using multimodal literacy were assessed through a 11-item questionnaire. This assessment was conducted in the experimental group after the treatment. All learners in the experimental group were given a copy of the questionnaire, and 36 valid responses were collected. The mean, standard deviation, frequency, and percentage of the data are presented in Table 7.

Table 7

Learners' Attitudes in Javanese Script Reading after Treatment

No	Variable	Mean	S.D.	Level
1	I feel comfortable with class activities.	3.97	0.17	Highly positive
2	The materials used by the instructor in class, such as audio, picture, video, or PowerPoint slides, effectively helped me understand the lesson.	3.97	0.17	Highly positive
3	Activities in class help me understand Javanese script texts better.	3.94	0.24	Highly positive
4	I had a lot of fun with the activities in class.	3.94	0.24	Highly positive
5	Activities in class are too easy for me.	3.94	0.24	Highly positive

6	After attending this class, I found that Javanese script is easy.	3.94	0.24	Highly positive
7	I can apply what I learn to my daily life.	3.94	0.24	Highly positive
8	Activities in class are exciting for me.	3.94	0.35	Highly positive
9	I am enthusiastic to come to class.	3.94	0.35	Highly positive
10	Activities in class are enjoyable for me.	3.94	0.35	Highly positive
11	Passages assigned to read in class are very interesting.	3.91	0.29	Highly positive
12	I have more chances to participate in class activities.	3.91	0.29	Highly positive
13	Activities in class are effective in developing my Javanese script-reading abilities.	3.91	0.29	Highly positive
14	After attending this class, I can read Javanese script text better.	3.91	0.29	Highly positive
Average		3.96	0.27	Highly positive

Table 7 reveals that learners had highly positive attitudes toward instructions on reading Javanese script using a multimodal literacy approach (M=3.96). Learners favoured the lesson material and felt comfortable in the class activities. The statements of the highest agreement were: “The materials used by the instructor in class, such as audio, picture, video, or PowerPoint slides, effectively helped me understand the lesson” (M=3.97) and “I feel comfortable with class activities” (M=3.97). The results from the observation in the experimental class supported these questionnaire results. During the treatment, texts in Javanese script equipped with picture illustrations, audio, and animated videos at the end of the reading and assessments in interactive games make learners comfortable to participate in lessons. Many learners opined that they were helped by the presence of various exciting and new learning modes they have discovered.

Furthermore, learners also felt that the approach instruction was fun and beneficial to their reading ability. As shown in Table 7, it is backed by high scores for statements such as "Activities in class help me understand Javanese script texts better" (M=3.94), "I had a lot of fun with the activities in class" (M=3.94), and "Activities in class are enjoyable for me" (M=3.94). Furthermore, all observations indicated that the class activities helped learners overcome challenges in reading Javanese script texts. The learners displayed great enthusiasm in following each stage of the learning model provided. The initial treatment of providing educational games related to Javanese script material became addictive for the learners. Learners also seemed more active in asking the teacher when they encountered difficulties in understanding the material. Learners’ creativity in exploring and understanding reading content in Javanese through digital learning modes could be seen when they presented their group work results.

Discussion

This study examines the effect of multimodal literacy strategies on the Javanese reading ability of learners in senior high schools in Indonesia. The results indicate a significant difference between the pretest and posttest scores between the group class using conventional methods and multimodal literacy strategies. The experimental group that applied the multimodal literacy approach performed better than the control group. This result is consistent with the study by Yimwilai and Phusri (2018), who observed significantly higher reading proficiency among EFL learners in the experimental group compared to the control group. Similarly, Sherwani and Harchegani (2021) and Varaporn and Sitthitikul (2019) demonstrated that the experimental group, subjected to multimodal approach, outperformed the control group in reading comprehension skills. This suggests that multimodal literacy has a positive impact on comprehension abilities, as observed in Iran and China (Anari & Abusaeedi, 2019; Boshrabadi & Biria, 2014; Pan & Zhang, 2022). These results indicate that the use of multimodal strategies not only improves learners' English reading abilities but also enhances a learner's ability to read Javanese script. On the other hand, the use of conventional methods by teachers has a minimal impact on learners' ability to read the Javanese script. This finding contradicts the study conducted by Baharani and Ghafournia (2015), which found that traditional methods had no significant effect on reading abilities. Therefore, it is not advisable to rely on this method in teaching language reading skills to learners in the long term.

The use of multimodal literacy strategies in the experimental class had a significant impact on learners' achievement and reading abilities in Javanese script. Previous researchers have also found similar results, indicating that this approach positively affects learners' reading ability (Astarilla & Warawan, 2018; Cahyaningati & Lestari, 2018; Varaporn & Sitthitikul, 2019; Yimwilai & Phusri, 2018). Additionally, this approach enhances learners' reading fluency. According to Viray (2023), the multimodal approach effectively improves reading fluency among learners. These findings demonstrate that multimodal literacy effectively enhances learners' ability to read Javanese script. Hence, multimodality in reading instruction is effective (Bao, 2017). Its effectiveness in improving learners' ability in reading language script was influenced by using different modes during instruction. The modes used included text, images, audio, video, and games. The modes were used to accommodate learners' various learning styles. According to Li (2022), using this mode helps organise activities, create an authentic learning environment, engage multiple senses to motivate learners to actively participate in language learning, and improve learners' reading ability. Pan and Zhang (2022) utilised a range of methods, such as visual aids, colours, mind maps, music, video clips, and group discussions to engage learners' senses, eventually fostering their interest in learning English and encouraging their active participation in the classroom. According to Freyn (2017), combining different learning modes can promote creativity and meaningful learning via an enriched learning environment. Teachers ought to adopt diverse approaches to address reading difficulties among high school learners. By incorporating multiple, semiotic modes in language learning, learners can enhance their language skills and apply their knowledge effectively in real-life situations (Sakulprasertsri, 2020).

Implementing multimodal literacy strategies in Javanese reading instruction offers learners a diverse array of texts tailored to their interests, fostering a personalised approach to reading. This approach aims to cultivate a habit of reading based on individual preferences and interests, making it particularly suitable for accommodating various learning styles. Additionally, it enables teachers to customise activities to suit the needs of their learners (Sakulprasertsri, 2020). By considering learners' preferences, this approach serves to motivate and engage them in comprehending texts (Ganapathy & Seetharam, 2016). Julinar (2018) highlights that employing multiple modalities not only encourages post-lesson reading but also contributes to a more relaxed classroom atmosphere. Moreover, it can bolster learners' confidence in mastering Javanese script, aligning with Lee's (2014) assertion that such modalities enhance learners' self-assurance, benefiting particularly those with limited proficiency in the Javanese language.

With regards to learners' attitudes towards the use of multimodal literacy strategies, it has been observed in this study that learners generally have a positive attitude. Previous research (e.g., Ilmi & Dewi, 2022; Lian, 2022; Pan & Zhang, 2020; Yimwilai & Phusri, 2018) also supports this finding. This positive attitude is reflected in their strong interest in using multimodal approaches to read Javanese script, which has led to improvements in their Javanese script-reading abilities as well as enhanced content comprehension and communication skills. The application of this approach has also sparked increased interest and motivation in learning among the learners. Consequently, the learners improved in their achievement of learning outcomes, formed collaborative workspaces in their lessons, and enhanced their creativity. Furthermore, the learning process becomes more learner-centred, with the teacher serving as a facilitator. This finding is consistent with the study by Ganapathy and Seetharam (2016), who found that meaningful learning can be promoted by engaging learners in self-directed learning experience.

Conclusion

This study shows that multimodal literacy effectively enhances the reading abilities of Javanese learners. There are significant differences between pretest and posttest scores in both conventional methods and multimodal literacy strategies. The use of multimodal literacy as an instruction approach in Javanese language classes in high school has significant differences in reading comprehension of Javanese script. This treatment significantly affects learners' achievement. Moreover, this treatment also has a significant effect on learners' reading abilities in Javanese script. Each step of multimodal literacy consists of strategies that offer different learning experiences to learners. Multimodal literacy assists learners in reading Javanese script by allowing them to discuss their understanding of the text with their peers, leading to improvements on learners' reading fluency, prior knowledge, vocabulary acquisition, and social abilities. As a result, learners responded positively to these benefits.

However, it is essential to acknowledge the limitations of this quasi-experimental study. Consequently, the results may not be generalisable to other contexts. This study specifically examines Javanese reading abilities and does not take into account other skills like speaking, writing, and vocabulary. However, understanding the implications of this study can help teachers effectively implement multimodal literacy strategies in their teaching practices. By recognising the positive effects of these strategies on Javanese learners' reading abilities, teachers can incorporate similar approaches into their curriculum to improve learners' understanding and engagement with the Javanese script. Additionally, the findings of this study can be used to inform the development of teacher training programmes that equip teachers with the necessary knowledge and skills to integrate multimodal literacy strategies into their teaching methods. Therefore, the study's implications emphasise the necessity of further research in developing a more comprehensive understanding of the field by conducting empirical study involving diverse comparison groups and potentially incorporating action interaction in the classrooms. It will yield more impactful results that can contribute to the teaching profession, particularly in the reading ability of Javanese language.

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EFFECT OF SHORT ENGLISH WRITING ACTIVITY ON FACEBOOK ON SCIENCE AND NON-SCIENCE STUDENTS' PERFORMANCE

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ABSTRACT

This study compares the science and non-science university students' performance in a short English writing activity on Facebook. In this mainly quantitative data, 86 Common European Framework of Reference (CEFR) Independent and Basic English users from 4 classes (2 sciences and 2 non-sciences), joined four separate Facebook Groups, managed by two class teachers. Each week, the teachers posted a pre-selected topic in the groups and the students were instructed to respond to it. The mean performance of the groups was compared by performing a paired samples t-test and an independent samples t-test of the pre-test and post-test. The post-test revealed a significant improvement in the students' short writing performance (within groups), but no significant difference was observed between the science and non-science groups' performance (between groups). Individual interviews with the teachers revealed that both groups of students committed similar grammatical, structural, and vocabulary mistakes but the Science students were more active and confident in using English in the classroom. In line with the constructivist view of language learning, the study highlights the importance of teachers' instructions, feedback, monitoring, and encouragement in improving students' short writing ability and consistency in writing practice.

Keywords: Facebook; non-Science; performance; Science; short English writing activity; teachers' feedback

Introduction

Social media and web tools are increasingly utilised in language teaching and learning practices. The tools used in English classrooms include Facebook, WhatsApp, Instagram, blogs, Kahoot, Canva, Edmodo, and podcasts (Mudra et al., 2022; Nugroho et al., 2022). These tools, along with the options that they offer, are viewed positively, making them an incentive for writing improvement (Lira-Gonzales et al., 2023). This is especially true for social media like Facebook and Instagram which students use daily to socialise and learn English (Mahmud et al., 2022).

Facebook is among the pioneers in social media platforms for English language learning and has been researched for more than a decade. Studies have shown the usefulness of Facebook on reading, writing, listening, and speaking skills (Barrot, 2018; Klimova & Plikhart, 2020). Facebook's pedagogical potential in language learning is due to its features such as groups, chats, synchronous and asynchronous interactions, support for videos, graphics and texts, flexibility, accessibility, exposure to social pressure, and audience awareness (Barrot, 2021).

Throughout the years, Facebook has maintained its relevance and strength as an educational and research platform (Mauludin & Rizal, 2023; Tran & Pham, 2023). A meta-analysis reported Facebook's roles and benefits for foreign language instruction by engaging adult learners, improving college students' academic performance and achievement, supporting cross-cultural awareness and collaborative learning, enhancing interactive and communicative learning, as well as immersing students in a meaningful learning experience (Qassrawi & Al Karasneh, 2023). All these make Facebook a suitable lifelong English learning platform for university learners.

Research on Facebook as an English writing platform has been extensive, but not exhaustive (Barrot, 2021). There is a limited amount of research that compare the usage of Facebook as a tool to develop English writing among students of different disciplines, for example, between science, arts, social science, and/or engineering. This is an important gap because inconsistent findings were observed when Science and non-Science students' performance was examined. For instance, Shousha et al. (2020) reported different writing difficulties faced by arts and science students. Despite this, Teaching English as a Foreign Language books produced for science and non-science students do not cater to these differences (To & Mahboob, 2017).

Considering the status of English as the medium of instruction (Alhassan, 2019), its importance in graduate employability in both the scientific and social sciences domains, and the popularity of social media as learning tools, this study examines whether Malaysian university students benefit from using Facebook to improve their English writing skills and whether there are differences between the science and non-science students' writing performance in Facebook writing tasks.

Literature Review

Use of Facebook in Improving English Language Writing Skills in ESL and EFL Contexts

Facebook offers a potential pedagogical feature that can be utilised to improve language skills (Samani & Noordin, 2019). Studies on English writing on Facebook have been examined from various angles (Barrot, 2018), including the impact of learning via Facebook and students' achievement (Klimova & Pikhart, 2020; Sakkir & Dollah, 2019), written corrective feedback (Alberth, 2019; Ekahitanond, 2018), e-portfolio (Barrot, 2021); motivation (Alberth, 2019); peer-based comments and interactions (Pham & Hoai, 2021; Samani & Noordin, 2019); and factors influence Facebook writing (Aziz & Khatimah, 2019).

An increasing number of studies have shown that Facebook and Instagram use can develop the technical aspects of ESL and EFL writing skills, such as structuring and organising ideas and lexical collocation errors, which are caused by students' direct translation from the native to the second language (Lamo et al., 2023; Rakhmatovna, 2023). Sultana et al. (2023) and Atayeva et al. (2019) suggested that online newspaper reading with more visual components can help with these issues and increase students' confidence to publish their works on Facebook.

Facebook is useful for developing productive language skills, especially writing, which is the least popular and most difficult skill to master (Klimova & Pikhart, 2020). Through reviews of Web of Science and Scopus databases for Facebook and writing-related studies, Klimova and Pikhart (2020) attested to Facebook's potential in developing writing skills. Similarly, Un Nisa et al. (2023), Paida et al. (2022), and Sakkir and Dollah (2019) among others reported significant improvements in Pakistani and Indonesian students' English writing scores (e.g., descriptive), hence, called for the application of Facebook group for English writing activity.

The Facebook Group feature has been identified as the most suitable for English writing activity (Amirza, 2019; Aziz & Khatimah, 2019; Sakkir & Dollah, 2019). The participants in Amirza's (2019) study found Facebook Group helpful for choosing correct vocabulary, brainstorming ideas, and writing in Standard English and grammar, though the process was challenging for them. In Facebook Groups, the students were exposed to peer comments and writing, which helped the learners improve their skills as well as their affective domain (Amirza, 2019; Pham & Hoai, 2021). Added to this, Facebook Messenger has been found to accommodate meaningful interactions via online chat, discussions, and completion of grammatical tasks.

The synchronous and asynchronous feature of Facebook allows timely feedback to prevent students from repeating the same errors and storage of feedback for later access (Samani & Noordin, 2019). Cruz (2023) recommended the Facebook Project to promote tandem learning that encourages interactions among peers. The learning experience during the COVID-19 pandemic establishes that Facebook adoption has a significant positive relationship with usefulness and ease of use, accessibility, and productivity while improving academic performance (Bouklikha, 2023). Despite acknowledging the adverse effect of Facebook on students' English writing performance, Asafo-Adjei et al. (2023) still recommended integrating pedagogical practices that leverage social media to engage students.

As findings on Facebook's potential in English writing are still of interest, this study follows Klimova and Pikhart's (2020) suggestion on the need for more experimental research in this area to examine other skills such as communicative competence, that may also benefit students.

Interaction between Teachers, Peers, and Tools on Social Media Writing

Technology as the main source of tools in social constructivist classrooms enhances the collaborative and communication process among teachers, students, and peers. A meta-synthesis of studies shows that technology-supported peer feedback activities will be successful when all these elements are taken into consideration including students' preferences, capabilities, and attitudes towards the features of digital tools, contextual factors, online platforms and their usage, and provision of proper feedback (Qassrawi & Al Karasneh, 2023). For example, peer writing feedback on Moodle (Learning Management System, LMS) and Facebook both significantly improved students' abilities, and the e-peer feedback on Facebook had a considerable impact on the length of writing and involved more diverse comments, compared to Moodle (Tran & Pham, 2023). Hence, student-centred and communicative approaches in English language learning indeed maximise participation and foster active engagement, deeper understanding, collaboration, critical thinking, and creativity among students (Shafi & Masood, 2023).

While peer interaction gives students a sense of community in a learning environment, a strong teacher's presence, facilitation, or moderation as the More Knowledgeable Other is important in social constructivism and social media learning. Students prefer teachers' presence in an online learning community as they require guidance and feedback during learning (Suppiah et al., 2022). Added to this, teachers' involvement in peer feedback activities was beneficial in improving the consistency of the comments and revisions (Astrid et al., 2021). Therefore, teachers must plan and execute teaching and learning activities effectively. Students' ability to self-regulate and learn effectively with peers are indicators of success in the present day (Lim et al., 2020). Nazir and Brouwer (2019) attested that in a science programme, the "student-community" Community of Inquiry formed on Facebook led to a powerful educational experience when the activities were constructively integrated into the course design, with the presence of a moderator.

Science and Non-Science Students' English Language Learning

Studies comparing science and non-science students' English language performance and achievement are limited. Shousha et al. (2020) reported from the Saudi perspective that Arts students faced difficulties in writing mechanics (spelling, syntax, and sentence structures); while science students had more semantic writing problems and inept vocabulary that resulted in lexical errors. Similarly, the female Arab undergraduate students at Science and Arts College made grammar, spelling, and punctuation mistakes in their English writing (Dhanapal & Agab, 2023) and the English majors in Maznun et al. (2017) faced difficulties in writing the introduction for research reports, particularly in constructing the background of the study, theoretical framework, and statement of the problem. These issues arose from the lack of exposure to the English language, inadequate application of primary language and writing mechanics, memorisation of writing topics, and interference and direct translation from the native language.

Ardasheva et al. (2018) opined that science is a linguistically and cognitively demanding topic. Hence, comprehending the factors that contribute to vocabulary learning is important to help English learners study the subject (Dhuli et al., 2023). Moore and Schleppegrell (2020) stated that engagement in reading and writing in science with a focus on language enabled upper elementary Arabic EFL learners to be more; expressive, critical in their presentation of evidence, confident in their assertions, and argumentative. Rakedzon and Baram-Tsabari (2017) believed that future scientists must successfully communicate science to integrate into the community via writing, publish scientific papers in English, as well as engage with various stakeholders.

To this end, Blikstad-Balas et al. (2018) stressed language art teachers' role in scaffolding students' writing ability. When writing is prioritised, learners are given the opportunities to be immersed in sustained, scaffolded sessions, in producing explicit, genre-specific products. Cervetti and Hiebert (2019) affirmed that knowledge has not always been a focus of English/Language Arts Instructions, as students' schemata are not activated in acquisition. They underlined several strategies to overcome this problem including giving students reasons to read and write, as well as prioritizing content-area instruction. Poonpon (2017) advocated for interdisciplinary-based projects to be implemented in language classrooms to enhance Information Science learners' English acquisition, substantiating Victoria's (2023) encouragement for more hands-on experiences, project work and activity-based teaching to nurture the scientific attitudes among students in improving education. Lira-Gonzales et al. (2023) recommended the utilisation of digital technologies that involve both technical and social elements like blogs, Twitter, and Instagram to improve students' writing experience; and Bailey and Lee (2020) found that writing on social media yielded the greatest clarity due to shorter sentence length and simpler word choice than textbook-based and test-based writing. Many studies have examined scientific communication via the English language and provided evidence of Facebook's values on science students' academic achievement (Basil, 2023; Moore & Schleppegrell, 2020).

This study fills the gap between the science and non-science students by examining their English short-writing performance in the realm of social media learning.

Methodology

Participants

The participants of this study were 86 university students, made up of 37 science and 49 non-science students, and enrolled in a Level 1 English proficiency course. They were identified based on their achievement in the MUET, a requirement for university entrance.

Aligned to the Common European Framework of Reference (CEFR), the MUET comprises nine levels (Bands 1.0 to 9.0). Ninety-seven percent (97%) of the science and 71% of the non-science students were Lower B1 Users (MUET Band 3.0), categorised as Independent Users. The rest of the science (3%) and non-science participants (29%) were Basic Users (MUET Bands 2.0 and 2.5). There was a higher percentage of the science participants with Band 3 (97%) compared to the non-science group (71%).

The science group was a mixture of Year 1 and Year 2 students, while the non-science students were almost exclusively Year 1 students. The participants enrolled in 4 classes: two sciences and two non-sciences, handled by two teachers with 10 years of teaching experience. The teachers handled one science and one non-science class each. The participants were a mixture of sciences and non-sciences programmes including Chemistry, Biology, Industrial Technology, Arts, Management, and Social Sciences.

Research Instruments

This study has three main instruments, which are (1) pre-test and post-test, (2) weekly Facebook short English writing activity, and (3) individual interview sessions with teachers.

The weekly writing topics were decided based on the syllabus of the course, the student's proficiency level, and the required writing skills. Teacher A, Teacher B, Teacher C, and the researchers proposed, discussed, and vetted the writing topics in three discussion sessions. Teacher C was an external panel with seven years of teaching experience at the department and was involved in the selection of the topics as well as grading of the weekly short writing. The selected topics (listed in Table 1 in the results section) were considered useful, practical, and relatable for students' reflections.

The interview questions were created based on the needs of the study. The questions were about the students' participatory pattern in the writing activity and writing ability in terms of content, language, and organisation. The teachers were asked to compare the Science and non-Science students' short writing performance, attitude in the classrooms, and participation in the Facebook activities.

Data Collection Procedure

The short English writing activity on Facebook was conducted for eight weeks (Week 3-8), inclusive of two weeks of pre-test (Week 2) and post-test (Week 9).

Four Facebook groups were created to cater to the four classes. The Facebook groups were named Teacher A (Science Group), Teacher A (non-Science Group), Teacher B (Science Group), and Teacher B (non-Science Group). The students enrolled in the teachers' classes were invited to join the group as part of the class activity.

The intervention started on Week 2 of the semester when all participants took the pre-test. The students were required to produce a short English writing (5-7 sentences) in response to a given topic on Facebook. This took place for 30 minutes during class hours. The post-test in Week 9 followed the same format as the pre-test.

Weeks 3-8 were allocated for similar exercises. Every week, the teacher posted the selected topic in the Facebook groups and students were required to respond to the topic within a week. Throughout the week, the teachers monitored their students' responses and provided feedback using the comment feature. Students were encouraged to read and comment on each other's posts to promote English language usage and establish a friendly environment.

Each writing piece produced by the students in the pre-test, weekly writing exercises, and post-test was graded by Teachers A, B, and C and scores were recorded in four separate Excel templates.

After the writing intervention concluded, the teachers participated in individual interview sessions with the researcher.

Data Analysis

Each piece of short writing on Facebook was graded by two teachers, that is, Teachers A and C, and Teachers B and C, based on an adapted writing rubric used by the English Department at the university. To ensure reliability, the components of the marking scheme were fixed to content development (details and elaboration), lexical variety, and grammatical accuracy. The total score of each writing piece was 12 marks, with the following categories – Limited User (4-5 marks), Modest User (6-8 marks), Good User (9-10 marks) and Very Good User (11-12 marks). The scores were reported to the researcher to be tested for statistical significance.

The pre-test, post-test, and weekly students' writing were gathered and analysed quantitatively using descriptive and statistical analysis. The descriptive data included the frequencies, percentages, mean scores, and standard deviations. The statistical data comprised the normality test, paired samples t-test (within groups), and independent samples t-test (between groups).

The qualitative data from the three interviews were analysed deductively based on the questions and responses. Recurring themes are the science and non-science students' short writing performance as well as their attitudes and the psychological factors that affected their participation in the English lessons and activities.

Results and Discussion

The research question (How do the Science and Non-Science students perform in the short English writing activity on Facebook?) is addressed quantitatively using descriptive statistics and paired and independent samples t-tests based on the student's scores in their short Facebook writing activity.

Scores for Writing

Table 1 shows the writing topic and the short writing scores in the form of mean and standard deviation. The analysis of ESL response writing among science and non-science students shows consistent performance, with science students slightly outperforming across topics. Out of 10 marks, the performance of science students was consistently good, with scores ranging from 6.32 to 7.26 across weeks. Their performance was particularly strong in Weeks 7 to 9, showing steady improvement and higher engagement in the post-test (Week 9).

For non-science students, the performance was average, with scores ranging from 5.93 to 6.84. They showed moderate engagement throughout but demonstrated the most improvement in the post-test (Week 9), reflecting gradual skill development. Both groups showcased their highest engagement and performance in the final weeks of the study.

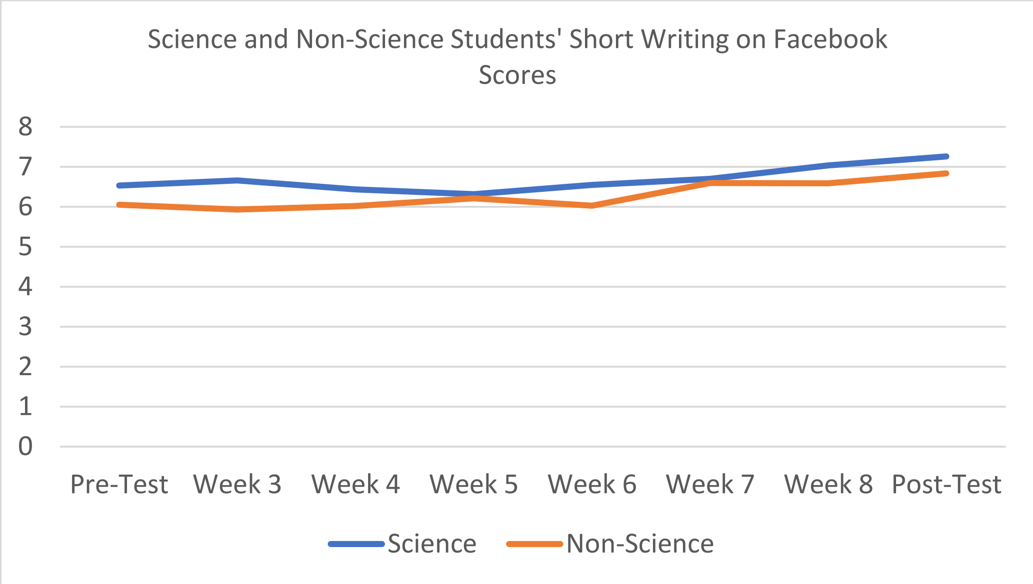
Table 1

Writing Topics and Scores from the Pre-Test, Post-Test, and Weekly ESL Writings

Week	Activity	ESL Response Writing Topic	Science (N=37)		Non-Science (N=49)	
			Mean	SD	*Mean*	SD
2	Pre-test	Do you prefer time or money? Why?	*6.53*	1.26	*6.05*	1.03
3	Exercise	Do you find it difficult to make friends? Why or why not?	*6.66*	1.09	*5.93*	0.93
4	Exercise	Write about a time when you felt pure joy.	*6.44*	0.94	*6.02*	0.98
5	Exercise	What is the most interesting thing about you?	*6.32*	0.92	*6.21*	1.18
6	Exercise	What is your greatest fear?	*6.55*	1.15	*6.03*	0.96
7	Exercise	Who is your celebrity crush? What do you find appealing about him/her?	*6.70*	1.01	*6.60*	1.12
8	Exercise	What is the most beautiful thing you have ever seen?	*7.04*	1.06	*6.59*	1.13
9	Post-test	If you could invent one thing to make your life easier, what would it be?	*7.26*	0.98	*6.84*	1.18

Figure 1 shows the comparison of the student's achievements. Figure 1 indicates that Science students' scores were better than the non-Science students in the short English writing activity on Facebook. The result is not unexpected as the science students were required to have a higher English language qualification to enrol into their respective programmes, compared to their non-science counterparts.

Figure 1
Scores from the Science and Non-Science Students' Short English Writings on Facebook



Test of Normality

The test of normality was conducted to determine the distribution of scores. The sample size was 86 participants (50 < 86 < 2000, within the range of Shapiro-Wilk test), therefore, a Shapiro-Wilk normality test was conducted. Table 2 shows the test of normality results for both science and non-science participants. Table 2 shows that the p-values for the pre-tests and post-tests for both the Science and non-Science groups were .056, .245, .420, and .931 (p > .05) respectively, hence the distribution of the data was normal. Therefore, the parametric paired t-test is appropriate for further statistical analysis.

Table 2
Test of Normality

Activity	Discipline	Shapiro-Wilk		
		Statistic	df	Sig.
Pre-Test	Science	0.943	37	0.056
	Non-Science	0.970	49	0.245
Post-Test	Science	0.970	37	0.420
	Non-Science	0.989	49	0.931

Writing Scores Before and After the Facebook Writing

The parametric paired t-test was then carried out to assess the strength and direction of the relationship in the scores of the two groups. The paired samples test, paired samples statistics, and paired samples correlations between the science and non-science groups are shown in Table 3.

Table 3
Paired Samples Test

Activity	Paired Differences							
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Science: Pre-test & Post-test	-0.730	1.056	0.174	-1.082	-0.378	-4.202	36	0.000
Non-Science: Pre-test & Post-test	-0.791	1.045	0.149	-1.091	-0.491	-5.297	48	0.000

Table 4 shows students' writing improvement (mean scores) after 8 weeks of the writing activity. Based on the result of the paired samples test in Table 4, the sig. (2-tailed) value for both Science and non-Science groups were 0.000 ($p < 0.005$). Therefore, the null hypothesis is rejected. There were significant differences in both groups' mean writing scores before and after the Facebook writing intervention, indicating that the Facebook writing intervention significantly improved the writing performance of both science and non-science students over the eight-week period.

Table 4
Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Test	6.5270	37	1.25663	0.20659
(Science)	Post-Test	7.2568	37	0.97626	0.16050
Pair 2	Pre-Test	6.0459	49	1.03036	0.14719
(Non-Science)	Post-Test	6.8367	49	1.17765	0.16824

Table 5 shows significant positive relationships between the writing scores before and after the Facebook intervention for both groups of students (science, $r=0.577$, $p=0.00$; non-science, $r=0.559$, $p=0.00$). A paired sample t-test was performed comparing the writing scores before and after (pre-test and post-test) the adoption of short ESL writing activity on Facebook between the science and non-science groups. The result for both groups showed that the mean differences were negative (science, $M=-0.730$, $SD=1.056$; non-science, $M=-0.791$, $SD=1.045$). This indicates that there were significant differences, science $t(36) = -4.202$, $p < 0.005$; non-Science $t(48) = -5.297$, $p < 0.005$, between students' writing performances before and after engaging with the Facebook writing activity. In conclusion, the short English writing activity on

Facebook improved the Science and non-Science students' English writing abilities and can be made into a valuable practice inside and outside of the classrooms.

Table 5

Paired Samples Correlations

Activity	N	Correlation	Sig.
Science: Pre-test & Post-test	37	0.577	.000
Non-Science: Pre-test & Post-test	49	0.559	.000

Differences in Writing Scores Between the Science and Non-Science Groups

The independent samples t-test was conducted to determine significant differences between the two groups. Table 6 shows the results of the independent samples t-test.

Table 6

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Pre	Equal variances assumed	0.1	0.8	1.95	84	0.055	0.48	0.25	-0.1	1.0
	Equal variances not assumed			1.90	68.6	0.062	0.48	0.25	-0.0	1.0
Post	Equal variances assumed	2.1	0.2	1.76	84	0.082	0.42	0.24	-0.1	0.9
	Equal variances not assumed			1.8	83.2	0.074	0.42	0.23	-0.0	0.9

The p-values under Levene's Test for pre-test is, $p = 0.0791 > 0.05$, and post-test is, $p = 0.154 > 0.05$, therefore equal variances are assumed. The Sig. (2-tailed) for the pre-test is $p = 0.055 > 0.05$, and for the post-test, $p = 0.082 > 0.05$, therefore, the null hypothesis is accepted. There is no significant difference in the short ESL writing ability between the Science and Non-Science groups after the Facebook intervention.

An independent t-test was performed to compare the mean scores between the science and non-science groups. The result revealed no significant difference between the mean writing scores of the science group and the non-science group

(Pre-Test, $t(84)=1.950$, $p > 0.05$; Post-Test, $t(84)=1.806$, $p > 0.05$), hence, the null hypothesis is accepted.

In conclusion, the results of the statistical tests showed that there were significant improvements in the science and non-science students' writing performances before and after their engagements with the short English writing activity on Facebook (within groups). However, when compared between groups, the science and non-science students' performance was not significantly different, indicating that they developed their writing skills at the same pace. This suggests that the Facebook short writing activity is beneficial to be practised across disciplines for ESL students.

Teachers' Interview

Three experienced teachers were involved in the process of conducting, teaching, and grading the students' short ESL writings on Facebook.

Based on their experience, they concurred that the science and non-science students did not differ too greatly from each other in their writing ability and committed rather similar errors. In terms of content, they have ideas to write, but limited vocabulary sometimes prevented them from effectively making their points. Neither group seemed to have many issues in organising their ideas, as shown by the interview extracts from the three teachers.

> Teacher A: I wouldn't say there isn't any difference, but not too obvious. All the students are almost the same, but the science students are already with better English.
> Teacher C: The good ones are okay; they can write well. The weak ones or the average can write too but must acquire more vocabulary to make their writing better.

The teachers were also asked to explain both groups' attitudes when they engaged in writing activities or tasks. From their observation, the students were positive when given writing tasks, but Teachers B and C added that writing activities and tasks are tough. While the students accepted the assignment, they may not feel confident with their writing skills, and therefore did not like it so much.

> Teacher B: Both groups showed a positive attitude during writing activities and in the classrooms.
> Teacher C: The students I met are okay. I do feel that sometimes they hesitated when I gave them writing tasks. Maybe they are not confident to write because I always pointed out the mistakes in their drafts.

An interesting observation was pointed out by Teacher C when the participation patterns across the four classes were compared.

> Teacher C: What I noticed when grading was that, you can see this from the score tables, the students in Teacher's A classes were more consistent. Almost

> everyone posted every week. But in Teacher's B class, their writings are sometimes missing.

Teacher C noted that there was a difference in terms of the consistency of task completion when the classes were compared. This situation perhaps relates to the teachers' monitoring and encouragement of students' participation in the group. Teachers A and B may have different teaching and facilitating styles in the classrooms.

Finally, the teachers were asked to describe the differences they observed among the science and non-science students' outlooks towards English language learning. All three teachers agreed that the non-science students were quieter than their science counterparts, which they attributed to the former's lower level of proficiency. The science students have a higher English language qualification (Independent level) to enrol in their respective study programmes, while the non-science students only require Basic English ability. Despite this difference, the teachers agree that both the science and non-science students gave their best efforts to participate in class activities.

> Teacher B: There are times when the science group of students performed better than the non-science group. However, there are also many non-science students who did well in writing.
> Teacher C: The science groups always seem more ready to participate. The non-science groups participate too, but not too actively. Maybe they are not confident, but they do produce the outcome.

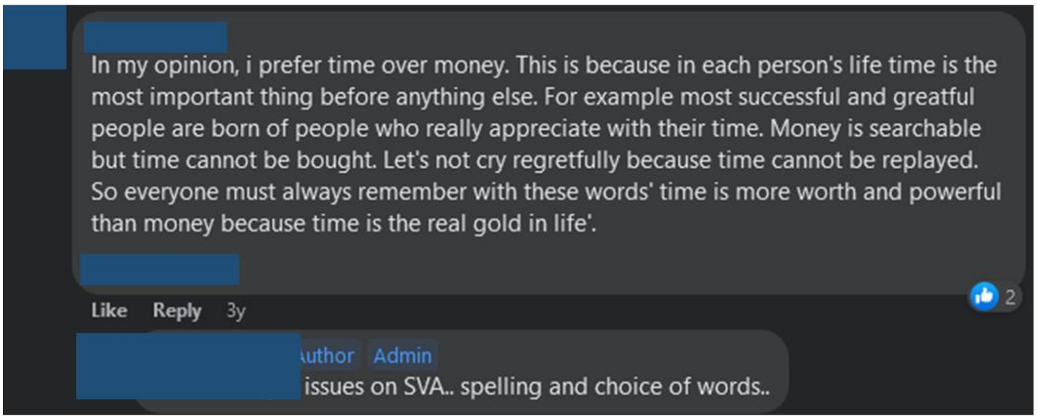
Both groups of students demonstrated positive attitudes during writing activities in the ESL classrooms, although the science groups usually demonstrated better performance than the non-science groups. In essence, there were better and weaker students in both groups and writing performance often depended on individual students' proficiency level.

In summary, the interview responses revealed that there were differences in terms of performance, attitudes, participation, and confidence between the science and non-science students in the short writing activity on Facebook. Teachers should consider these factors while integrating such technologies in English learning to maximise students' experience and attainment of necessary skills for future use.

Extracts of the Short English Writings on Facebook

The following are extracts from the writing activity on Facebook from both groups. Students from both groups made similar mistakes with the common ones being subject-verb agreement, tenses, and articles, as well as inaccurate choices of words and sentence structures. Both Teachers A and B provided direct feedback to correct the mistakes. Figure 2 shows a sample writing extract in one of the Facebook groups.

Figure 2
Short writing by Science student 1 from Teacher A's class on the topic of 'Do you prefer time or money? Why?' in Week 2



Discussion

The ESL short writing activity on Facebook can improve students' writing skills, perhaps, due to the frequency of the activity, the relatable topics, and the feedback from the teachers. The short writing activity provided students with a quick exercise to enhance their English language usage. Aziz and Khatimah (2019) agreed that the duration of time given to students to complete their activities affects their performance. In this case, a week was sufficient for the students to complete the short writing task on relatable topics. The asynchronous nature of the activity further provided students with more time to read, reflect, and write their comments (Astrid et al., 2021).

The current findings suggested that language proficiency exercises should encompass a wide range of topics and contents. Biological science students in Indonesia have been shown to request universal writing lessons including note taking, (critical) essays, informal text (e.g., email and short writing on social media), curriculum vitae, summary, abstract, experience, presentation slides, business letter, and research article instead of field-specific scientific reports (Rahmatullah et al., 2023). Therefore, universal task themes can be given to both science and non-science groups to develop their writing mastery. Recommendations by Victoria (2003), Cervetti and Hiebert (2019), and Poonpon (2017) for interdisciplinary-based projects and content-area instructions in language classrooms are also beneficial to give students purposes and goals to read and write in the target language.

The teachers agreed that the science students were more active than their non-science counterparts in the classrooms and on the Facebook platform. The science students always seemed ready to participate in lessons, while the non-science students required more prompts and encouragement. They agreed that this was due to the science students' higher proficiency level, which made them more comfortable and confident in articulating their thoughts during lessons and activities as well as in putting in more effort to produce quality writing. Rianto (2020) substantiated that science students with high English proficiency preferred communicative activities like asking questions and collaboration (social), while those with lower ability preferred techniques that organise, focus, and evaluate their learning (metacognitive).

Even though the non-science students seemed quieter, they completed the given tasks. Perhaps, the feeling of awkwardness when communicating with friends on Facebook limited their participation (Astrid et al., 2021). Therefore, while the writing tasks may suit both groups, the non-science students may benefit from more active and interactive learning activities, which can improve their confidence level in using the English language. For example, Cruz (2023) used the Facebook Project to create tandem learning which has proven helpful in enhancing students' intrinsic motivation, promoting learner reflection, and engaging with their partner's language needs.

Conclusion

The study showed that the short English writing activity on Facebook can be beneficial in improving university students' performance across disciplines. The findings also revealed that both science and non-science students committed similar types of grammatical, structural, and vocabulary errors in their writing. While there was no significant difference between groups' performance, the teachers observed different participation patterns among the science and non-science students, which were attributed to confidence and proficiency levels.

Therefore, Facebook may be considered as an alternative space for English writing practices across disciplines. The frequency of the writing activity and teachers' active guidance and monitoring are contributing factors to students' improved writing ability. Further research in the area may venture into interdisciplinary projects and content-based instructions in improving English writing skills on Facebook.

The study is limited to a small number of participants and a short period of intervention. For more substantial findings, future studies could investigate students from specific sub-disciplines such as engineering, education, biology, or architecture to find out whether the results hold, and integrate the Facebook activities into a whole semester for a longer period of intervention.

Research Ethics

This study was conducted by the Jawatankuasa Etika Penyelidikan Manusia USM (JEPeM)/Human Research Ethics Committee USM (HREC) (JEPeM Code USM/JEPeM/18070290).

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ENGLISH-MEDIUM INSTRUCTION PROGRAMME IN MALAYSIA: READABILITY OF SCIENCE TEXTBOOKS USED IN DUAL LANGUAGE PROGRAMME AT PRIMARY SCHOOLS

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ABSTRACT

The use of English as a medium of instruction in the teaching of science and mathematics in the Dual Language Programme (DLP) in Malaysia is to increase students' exposure to English in developing English proficiency to meet globalisation needs. One of the main issues in the implementation of DLP is student readiness to learn science in English. This study examines the readability of primary school science textbooks using Text Inspector to ascertain the difficulty level of the English used. One unit from Year 1 to Year 6 of science textbooks were analysed. The analysis used two features of the Text Inspector: Lexis: EVP and Scorecard. The findings indicate that the language used in science textbooks is beyond CEFR level B2, which suggests that the readability exceeds the primary students' English proficiency, hence affecting their ability to comprehend the textbooks. In addition, the findings showed that the readability of the science textbooks does not differ much from Year 1 to Year 6. The study found that the readability of the science textbooks used in primary school is inappropriate; hence, proposes policy and pedagogical implications for teachers to support students learning of science in English.

Keywords: English medium instruction; Dual Language Programme; readability; science textbooks; CEFR

Introduction

Students in non-Anglophone countries are now expected to read academic texts in English in view of the rise of English as a medium of instruction (EMI) in primary and secondary schools (Dearden, 2014). The interest in the use of EMI in Malaysian schools has continued to enable students to attain literacy in scientific English to meet the challenges of modernisation and globalisation, especially in the application of Science, Technology, Engineering and Mathematics (STEM). The teaching of science and mathematics in English was originally put in place in 2003 under the *Pengajaran dan Pembelajaran Sains dan Matematik dalam Bahasa Inggeris* (PPSMI) policy but was gradually phased out in 2010 in view of students' academic achievements in science, mathematics and English, and strong pressure from mother-tongue lobbyists (Ministry of Education Malaysia, 2010).

In this connection, the Ministry of Education introduced a new language policy *Memartabatkan Bahasa Malaysia Memperkukuh Bahasa Inggeris* (MBMMBI) or to uphold Bahasa Malaysia and strengthen the English Language in 2009 (Ministry of Education Malaysia, 2010). The policy supports the position of Bahasa Malaysia as the national language, and at the same time strives to improve students' English proficiency so that they can access knowledge vital to compete at national and global levels. Teaching STEM in English was also perceived as a means of providing students with more exposure to English.

The MBMMBI was extended to include the Dual Language Programme (DLP) in 2016, with English used as a medium of instruction in the teaching of science and mathematics in primary and secondary schools (Ministry of Education Malaysia, 2015a, 2015b). A review of studies showed that schools offering the DLP faced challenges to implement it, primarily because of the level of readiness of teachers to teach in English and of students to learn in English. The lack of English proficiency (Moses & Malani, 2019; Othman et al., 2020) and professional development and support structure for teachers (Ananthan & Mohd Said, 2019; Has Bullah & Md Yunus, 2019) were identified as the major contributing factors affecting teachers' readiness. The readiness of students was affected by their low proficiency in English (Masrom et al., 2021; Suliman et al., 2018), which could in turn hinder learning especially in subjects such as science and mathematics.

Science textbooks are the primary source of knowledge input in primary schools, as they are used to impart scientific knowledge to the students. Their content is intrinsically difficult to understand because of the technical terms and abstract concepts. In addition, the complex lexical content may decrease the readability of the science texts, which makes learning more challenging (Peters & Abdullah, 2017; Pun et al., 2022), especially for students with low proficiency when the lexical items are at a level beyond their proficiency.

This paper aims to examine the readability of science textbooks written in English which are used in primary schools from Years 1 to 6 to ascertain the level of readability according to the Common European Framework of Reference for Languages (CEFR) level. The authors acknowledge that the CEFR level of the lexical items is concerned with lexical suitability rather than content suitability, because the content is made more comprehensible by means of relevant visuals and pictures. Even so, it is necessary to raise awareness on the part of science teachers about the level of difficulty of the words, so they can decide which words require further explanation to improve comprehension.

This paper is organised as follows: we first discuss the policy on DLP within the context of the Malaysian education system and describe the methodology which includes a web-based tool used to measure the difficulty level of text and vocabulary, and to generate a list of words coded according to the CEFR level. The section that follows presents the findings and leads into a discussion on the need to address text complexity and readability and issues concerned with the implementation of DLP. The conclusion includes pedagogical and policy recommendations.

Dual Language Programme (DLP)

DLP which uses English as a medium of instruction in the teaching of science and mathematics in primary and secondary schools was introduced in schools in 2016 (Ministry of Education Malaysia, 2015a, 2015b). Taking into account the reasons for the reversal of the PPSMI policy, a decision was made to offer DLP as an optional programme; schools are given the choice whether or not to implement it. This delegation of authority is indeed important, given that Malaysia has a centralised education system, and initiatives tend to be one-size-fits-all (Ali & Hamid, 2018).

Unlike PPSMI, DLP is an optional programme for schools to use English-medium to teach science and mathematics. Conditions that schools must meet to offer DLP include certification by headmasters that the teachers are able to teach science and mathematics in English, adequate classrooms, written requests from parents for DLP classes for their children, school's satisfactory achievement in Bahasa Malaysia in the national exam or achieving above the standard level specified by the Ministry of Education, and at least 15 students per class. In addition, to qualify to teach in English, teachers are required to obtain at least C in English in *Sijil Pelajaran Malaysia* (SPM), Malaysian Certificate of Education, or its equivalent (Ministry of Education Malaysia, 2020). SPM is a national exam taken by all Form 5 students in Malaysia before continuing tertiary education. However, enrolment in the DLP class is based on parental choice, not on students' English proficiency (Abdul Rahim, 2015).

Although DLP is a voluntary programme, the pilot project in 2016 involved 300 primary and secondary schools (Ismail, 2012). The demand from parents for DLP has been strong. In August 2020, the then Education Minister Datuk Dr Radzi Jidin reported to Parliament that 2,291 schools were involved, including 737 primary schools and 1,554 secondary schools (Rajaendram, 2022). The Minister also reported that the demand for DLP classes exceeded the supply for the programme. In addition, Dr Nair from the Malaysian English Language Teaching Association pointed out that many schools were unable to offer DLP because the English proficiency of their science and mathematics teachers was not sufficient enough for them to teach in English (Rajaendram, 2022).

Studies on DLP reported readiness issues related to teachers' English proficiency, students' English proficiency, and code-switching during the class (Abdullah et al., 2019; Suliman et al., 2017a, 2017b). In addition, the lack of professional development and support structure for teachers (Ananthan & Mohd Said, 2019; Has Bullah & Md Yunus, 2019) were identified as the major contributing factors affecting teachers' readiness. Other EMI programmes from primary to tertiary levels also faced these critical issues and challenges (see e.g., Ali & Hamid, 2018; Pun et al., 2022; Suliman et al., 2021).

The Language of Science in the EMI Classroom

The language of science is by nature technical, consisting of concrete and abstract terms, and relating to classification, correlation, explanation, prediction, and processes (Gardner, 1974; Quilez, 2020). It is however necessary to distinguish between technical and non-technical terms. Technical terms include words such as acid, energy, and heat, while non-technical terms are usually non-specific or non-disciplinary terms such as category, elaborate, and specific, which contribute meaning to the technical terms (Gardner, 1974; Quilez, 2020). Despite these differences, technical and non-technical terms share two significant features in that they are abstract and polysemic (Quilez, 2020).

To understand science in English, students need sufficient command of the language, including both technical and non-technical terms. Their lack of proficiency in this area is the critical issue highlighted in the EMI literature (e.g., Ellili-Cherif, 2014; Neri et al., 2021; Suliman et al., 2019). Studies have reported the importance of the link between reading comprehension and science performance (Cromley et al., 2010; Imam et al., 2014; Snow, 2010). It is believed that they complement each other to improve science achievement in the classroom. Students with good reading comprehension benefit from scientific texts, as they can understand the vocabulary (both technical and non-technical) and also extract information from the written text. The language of science is considered a cognitively demanding skill, and a better understanding is needed when students read scientific texts. To improve the learning of science in class, it is important for students to understand the vocabulary and at the same develop the ability to read scientific materials independently.

Although limited in number, there have been studies which have examined the readability of science textbooks in their contexts of use (see e.g., Gyasi, 2013; Hu et al., 2021), and which have raised concerns about the difficulty of the English used in the textbooks. A number of linguistic issues relating to the teaching and learning of science in DLP, and other EMI programmes were highlighted in the literature (see e.g., An & Thomas, 2021; Astiani & Widagsa, 2021; Suliman et al., 2021).

Viewed from this perspective, the knowledge gap addressed by the present study is ascertaining the readability level of English science textbooks used in the DLP. The focus is on the readability of scientific texts in Primary Years 1 to 6 textbooks based on word level difficulty according to the CEFR, which has been used for readability analysis. The use of the CEFR in this context is appropriate because the English language education system in Malaysia is aligned to the CEFR (Ministry of Education Malaysia, 2013, 2015c) with proficiency targets set at each school level, namely, A2 at primary, B1 at secondary and B1/B2 at post-secondary school (Ministry of Education Malaysia, 2015c).

Common European Framework of Reference for Languages (CEFR)

The CEFR levels (A1 - C2) are the commonly defined levels of proficiency for foreign language learning including English. It has three subdivided levels: Basic (A1 and A2), Independent (B1 and B2), and Proficient (C1 and C2). The can-do-descriptors describe in positive terms real-world communicative activities that learners can perform and have been exploited in the development of curriculum and assessment of language proficiency courses. Table 1 shows the CEFR descriptors for overall reading comprehension, which indicate that a learner can use the language at the CEFR levels.

Table 1

Overall Reading Comprehension (Council of Europe, 2018, p. 60)

Overall Reading Comprehension	
C2	Can understand virtually all forms of the written language including abstract, structurally complex, or highly colloquial literary and non-literary writings. Can understand a wide range of long and complex texts, appreciating subtle distinctions of style and implicit as well as explicit meaning.
C1	Can understand in detail lengthy, complex texts, whether or not they relate to his/her own area of speciality, provided he/she can reread difficult sections. Can understand a wide variety of texts including literary writings, newspaper or magazine articles, and specialised academic or professional publications, provided that there are opportunities for re-reading and he/she has access to reference tools.
B2	Can read with a large degree of independence, adapting style and speed of reading to different texts and purposes, and using appropriate reference sources selectively. Has a broad active reading vocabulary, but may experience some difficulty with low-frequency idioms.
B1	Can read straightforward factual texts on subjects related to his/her field and interests with a satisfactory level of comprehension.
A2	Can understand short, simple texts on familiar matters of a concrete type which consist of high frequency everyday or job-related language. Can understand short, simple texts containing the highest frequency vocabulary, including a proportion of shared international vocabulary items.

A1	Can understand very short, simple texts a single phrase at a time, picking up familiar names, words and basic phrases and rereading as required.

The Roadmap 2015-2025 sets aspirational targets for Malaysian students to achieve by 2025 beginning with CEFR A2 as the target for primary schools (Ministry of Education Malaysia, 2015c; Mohd Don & Abdullah, 2019). This makes it possible to monitor student progress in English from primary school to university. In terms of reading comprehension, students are required to achieve a particular target of overall reading comprehension as they progress through their education level (see Table 1).

Although the target proficiency level for the end of primary schooling is CEFR A2, a preliminary study of English language used in science textbooks for DLP at primary level showed that it was CEFR B2 and higher. This indicates that the readability of science textbooks is beyond primary students' proficiency level, which is likely to affect their comprehension and their interest in science (see Pun et al., 2022; Quilez, 2020).

Studies on Readability of Science Texts

Despite the limited number of publications, the studies highlighted the concerns on the readability of science textbooks written in English in their contexts. None of the studies used the readability formulas that can generate the score in the CEFR. The readability formulas commonly used in the methodology were Flesch Kincaid Reading Ease, Flesch Kincaid Grade Level, Gunning Fog, Cloze Test Readability Index and a few others. None of the readability formulas used can generate the score in the CEFR.

Hu et al. (2021) evaluated the difficulty of English used in science and EFL textbooks used in secondary Grade/Year 1 in English-medium instruction secondary schools in Hong Kong. This study took a corpus-based approach to examine the coverage of academic and general words in the textbooks. Multiple formulas such as Automated Readability Index (ARI), Flesch Reading Ease, General Service List (GSL) and Gunning Fog were used to examine the readability levels of the textbooks. According to the analysis, science textbooks in English-medium are difficult to read and inappropriate in terms of the coverage of academic words and the readability level for EFL learners.

Gyasi (2013) investigated the readability of science textbooks at senior high school level in Ghana. The study used two aspects to understand readability: the Gunning Fog Scale and the Cloze Test Readability Index. The Gunning Fog Scale was used to analyse four science textbooks (Biology, Chemistry, Integrated Science and Physics). In addition, 300 high school students from five schools in Ghana were selected to take the cloze test to assess their reading ability. The findings indicated that only the Chemistry textbook was appropriate for senior high school students, while the Physics, Biology, and Integrated Science textbooks were very difficult for them to understand. On average, all four textbooks were quite difficult to read, and most of the students experienced frustration in reading them. In addition, the students also found it difficult to comprehend the content of the science textbooks in English.

Sibanda (2014) evaluated the readability of two Grade 4 natural science textbooks, using the Online free tool Text Readability Consensus Calculator, which included seven readability formulas (Flesch Reading Ease, Gunning Fog, Flesch Kincaid Grade Level, Smog Index, Coleman-Liau Index, Automated Readability Index, and Linsear Write). The study concluded that the readability of the two textbooks used in South African schools was not suitable for Grade 4 learners as they contained many technical words and unfamiliar concepts.

Difficulties in reading scientific text and textbooks are faced not only by school students but also by pre-university students. Ong et al. (2015) evaluated the readability of reading comprehension passages in the Malaysian University English Test (MUET) by comparing 152 passages (98 Arts and 54 science-based texts). Three readability formulas: (1) Flesch Reading Ease; (2) Flesch-Kincaid Grade Level; and (3) Gunning Fog Index were used to analyse all the passages. The studies revealed the readability of 16 passages was high for pre-university students which underlines the importance of selecting texts with appropriate readability levels to ensure the validity of the tests.

The mentioned studies highlight the usefulness of the readability formulas such as Flesch Kincaid Reading Ease, Flesch-Kincaid Grade Level, and Gunning Fog to explain why certain texts are easy to be read and others not and whether the text is suitable for a particular education level. These readability formulas are used all over the world including in Malaysia, especially by language lecturers when preparing English test papers, as they are accessible online for free. However, the readability scores of the formulas as mentioned above are based on education level in the United States (US). Anyone outside the US wanting to assess the readability of a text needs to know that the grade level used in Flesch Kincaid correlates with the grade level (in terms of English) in a specific context of use, as the language proficiency of pre-tertiary students in the US and Malaysia is not similar. Also, none of these readability formulas can identify the level of difficulty at word level, which explains why Text Inspector readability formula was selected for this study.

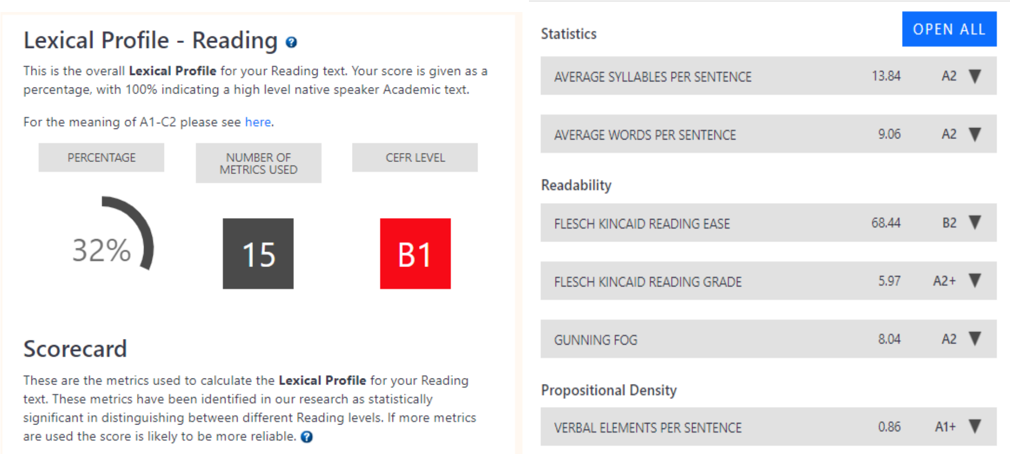
Methodology

The present study is part of a larger project examining the readability of Primary Years 1 to 6 science textbooks used in DLP. The textbooks are Science Year 1, Science Year 2, Science Year 3, Science Year 4, Science Year 5, and Science Year 6 published by Dewan Bahasa dan Pustaka. For this paper, only one unit/topic for each grade-year (Years 1 to 6) was selected and analysed using Text Inspector (with subscription), which is a web-based linguistic analysis tool that measures the vocabulary and text difficulty level in accordance with the CEFR. It has several features such as Statistics, Lexis: English Vocabulary Profile (EVP), Lexis: Academic Word List & Phrases (AWL), Scorecard and others to examine the readability of a text (Text Inspector, n.d). Each feature generates statistics based on the need to get comprehensive information regarding complexity, readability, estimated CEFR level and other key statistics from any given text.

This study uses two features of the Text Inspector: (1) Scorecard and (2) Lexis: EVP. The Scorecard generates the lexical profile score in CEFR (e.g., CEFR C2) for the readability of the text. The lexical profile of the Scorecard is based on multiple metrics:

statistics/syllables, English Vocabulary Profile (EVP), British National Corpus (BNC), Corpus of Contemporary American English (COCA), Academic Word List (AWL), and metadiscourse markers. Figure 1 is an example of the Text Inspector: Scorecard.

Figure 1
Scorecard and Analysis



Lexis: EVP analyses the text according to the EVP developed by Cambridge University Press. It identifies each word used in the text according to the CEFR on a scale of A1-C2 (see Figure 2).

The limitation of Text Inspector is in analysing a text under 100 words. This is a challenge because primary science textbooks rely on short paragraphs, visuals, and descriptions, averaging around 100 words per topic. To address this, researchers combine sentences from these sections to create a 100-word passage for analysis.

Here is an example to illustrate the application of the Text Inspector - Lexis: EVP on input text. The input sample is taken from Year 2 textbook - Unit 8. Each word is tagged with the CEFR level according to EVP (refer Figure 2):

Figure 2
Input Tagged Word According to CEFR Level

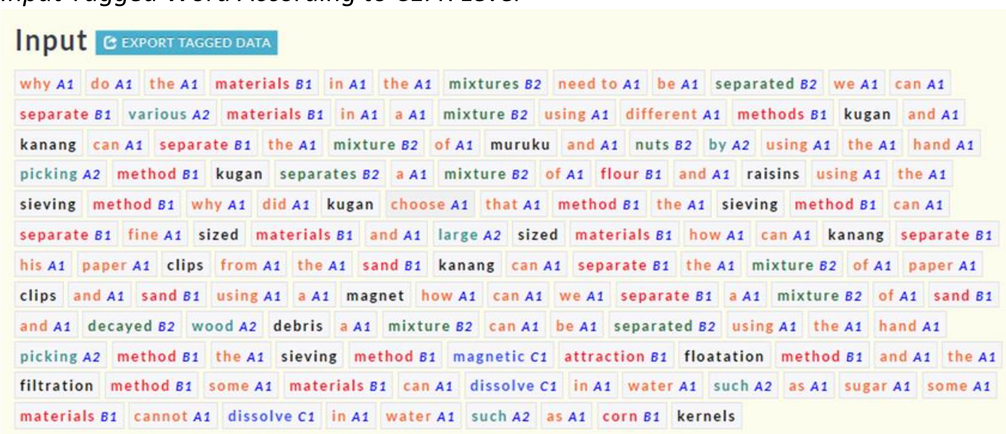


Figure 2 shows the analysis generated by Lexis: EVP. It identifies each word according to the CEFR level. The tagging such as A1, A2, B1, B2 appears next to the word. Words that are not tagged such as sieving, sized, clips, magnet are considered Unlisted, which means the level of readability is still not in the database of Lexis: EVP.

Findings

Readability of Science Textbooks

The analyses of the six topics from six textbooks show the readability level of the texts based on the CEFR according to grade (Year) level generated by Text Inspector: Scorecard. The findings showed that the language used in the science textbooks in primary school DLP is too difficult for the students to comprehend.

Table 2
Readability of the Science Texts according to CEFR Level

Year	Unit	CEFR level
Year 1	Unit 8-Absorption	C1
Year 2	Unit 8- Mixture	C1+
Year 3	Unit 8- Acid and Alkali	C1
Year 4	Unit 7 – Energy	C1+
Year 5	Unit 7 – Electricity	C1+
Year 6	Unit 6 – Force	C1

The results showed (see Table 2) that readability of all the science texts for primary level is at C1, even for primary Year 1 textbook. Based on the CEFR, only a proficient user has the reading ability to comprehend CEFR C1 text (see Table 1). These findings suggest that the difficulty for students to learn science is not only because of the difficulty of the subject itself but also the language used which is way beyond primary school students' proficiency level. As mentioned earlier, the target proficiency level set at the end of primary education is CEFR A2. However, as shown in Table 2 the level of English required to learn science at primary school is CEFR C1; this understandably raises the concern on the choice of language especially the lexical resources used to present the content of the selected textbooks. In this regard, science teachers need to be aware of the difficulty posed by the language in scientific text, and help students to understand the content and the meaning of words in the context of a science textbook. "Teacher talk" will have to take centre stage in science classrooms to help students understand scientific terms and concepts which otherwise may affect their comprehension.

The Science of Reading Comprehension

Studies have shown that the percentage of known vocabulary necessary for second language learners to comprehend written texts is between 95% (Laufer, 1989) and 98% (Hu & Nation, 2000; Schmitt et al., 2011), which can be regarded as the science of reading comprehension. The data generated by Text Inspector: Scorecard and Lexis: EVP showed that the texts at C1 readability have words beyond A2 between 29.62% to 52.69% (see Table 3). These are the percentages of words that can be assumed not to be understood by primary school students.

Table 3 shows the analysis of the words tagged beyond CEFR A2 from one unit/topic each taken from Years 1-6 science textbooks. The words tagged at CEFR A1 and A2 are common, frequent words that may not have serious implication on comprehension (see e.g., Figure 2); hence, the percentages are not shown here. Some examples of A1 words are can, in, the, we, why; and A2 words are by, large, picking, wood and others. As mentioned earlier, A1 and A2 lexis are analysed but not presented in the analysis as they are high frequency words that have less implication on comprehension. Only words that are tagged beyond CEFR A2 are presented in the analysis.

Table 3

List of Percentage and Words beyond CEFR A2 from Years 1 – 6 Science Textbooks

Source of Text	Level	List of words	Percentage of words beyond CEFR A2
Year 1 Unit 8 / Topic: Absorption	B1 (14.81%)	after, cotton, due, importance, iron, least, objects, prevent, protect, situation, used to, what, why, windscreen, your	29.62%
	B2 (8.64%)	absorb, absorbed, absorbs, lives, objects, observe, state, store, wiping, wound	
	Unlisted (6.17%)	absorbent, barrel, bathing, non	
Year 2 Unit 8 / Topic: Mixture	B1 (13.11%)	attraction, corn, flour, materials, methods, sand, separate	45.90%
	B2 (9.84%)	decayed, mixture, mixtures, nuts, separated, separates	
	C1 (3.28%)	dissolve, magnetic	
	Unlisted (19.67%)	clips, debris, filtration, floatation, Kanang, kernels, Kugan, magnet, muruku, raisins, sieving, sized	
Year 3 Unit 8 / Topic: Acid and Alkali	B1 (17.65%)	besides, bitter, burning, industry, properties, senses, sour, taste, tastes, tested, touch, touched	36.76%
	B2 (5.88%)	agriculture, salty, sensation, substances	
	C1 (4.41%)	neutral, slippery, tasteless	
	Unlisted (8.82%)	acidic, alkaline, coarse, indicator, indicators, litmus	

Year 4 Unit 7 / Topic: Energy	B1 (21.51%)	ability, blowing, burned, burns, earth, electrical, energy, flowing, fuel, fuels, heat, main, natural, ocean, power, produce, rocks, switching on, used to, waves	52.69%
	B2 (15.05%)	beneath, chemical, flame, generate, nuclear, obtained, solar, source, sources, stored, substance, substances, surface, transforms	
	C1 (3.23%)	coal, derived, panels	
	Unlisted (12.90%)	biomass, dam, faeces, fossil, geothermal, kinetic, petroleum, rotate, rotates, turbine, uranium, windmill	
Year 5 Unit 7 / Topic: Electricity	B1 (17.92%)	ability, earth, electrical, energy, flows, fuel, fuels, heat, humans, main, materials, natural, object, produce, produced, provide, provides, vehicles, wave	49.06%
	B2 (16.98%)	blades, chemical, enables, function, generate, generating, nuclear, obtained, organic, solar, source, sources, state, stored, supply, thus, warmth, yacht	
	C1 (1.89%)	appliances, coal	
	C2 (1.89%)	circuit, originates	
	Unlisted (10.38%)	biomass, brighten, burnt, dam, done, fossil, kinetic, petroleum, turbine, turbines, windmills	
Year 6 Unit 6 / Topic: Force	B1 (13.00%)	action, acts, direction, effect, effects, forward, involve, involved, involves, nearer, object, onto, upon	31%
	B2 (12.00%)	cause, force, forces, generated, gradually, holds, movement, observe, opposes, rope, slow down, surfaces	
	C1 (1.00%)	striker	
	Unlisted (5.00%)	carrom, climber, frictional, stroller	

The analyses showed the percentages of words tagged beyond CEFR A2 level in a text raise the concern on reading comprehension. The finding shows that a unit/topic in primary science textbooks, regardless at which educational grade, may contain about 30% of words beyond CEFR A2, indicating that students may not understand the meaning of almost one-third of the words in a topic/unit. The science of reading comprehension posited that to read and understand a text, one must understand between 95% and 98% of words in the text (Hu & Nation, 2000; Laufer, 1989; Schmitt et al., 2011). Based on the science of reading comprehension, the analysis shows that the percentages of words that are beyond CEFR A2 are more than 5%, and such range of percentages may impede reading comprehension of primary school students as they do not have the proficiency of CEFR C1.

The findings imply that the potential sources of difficulty for primary students in understanding science textbooks is a consequence of the lexis of science, since the language of science consists of technical words (e.g., absorbent, biomass, and filtration) and non-technical words (e.g., attraction, bitter, and properties). A closer examination of words in Table 3 shows that most of them are non-technical words, and ordinary English words used outside of a scientific context. However, when the words are used in science, they can be homonyms (e.g., clips, panels, and wound) or they can have different shades of meaning (decayed, stored, and slippery). Understanding homonyms and different shades of meanings is difficult for those whose proficiency level is at CEFR A2 or B1. In addition, the words are tagged beyond CEFR A2, which indicate that although they are ordinary words, they are not frequently used in everyday contexts (See Table 3).

There are also words tagged as Unlisted. These words are not individually tagged with a specific CEFR level in the EVP which indicates that they are the least frequently used words. A close examination of the Unlisted words shows that they consist of both technical and non-technical words. The findings indicate that understanding science requires rather more than simple comprehension of its technical vocabulary. According to Gardner (1974) the language of science is difficult in view of the nature of science itself which comprises "various intellectual processes, such as stimulus discrimination, description, classification, correlation and explanation," (p. 63) involving the use of both ordinary English and technical vocabulary.

Conclusion

This paper examines the readability of science textbooks written in English which are used in DLP in primary schools to ascertain the level of readability according to the CEFR level using Text Inspector. The overall results show that the readability of science textbooks does not significantly differ from Year 1 to Year 6. They are at CEFR C1, a level of language difficulty far beyond the proficiency of primary school students. It is important to note that not all texts on the chosen topics are at CEFR C1, but most are not lower than CEFR B1. In this respect, the readability of these science textbooks is inappropriate for the target students in primary schools. The aspirational target set for primary 6 students is A2 to be achieved by 2025 (Ministry of Education Malaysia, 2015c) from pre-A1 set for Primary 1. CEFR level B2/C1 is the aspirational target set for university students. It is indeed difficult to see how students are expected to comprehend science in English when they do not even have English proficiency required to process the text. Literature on readability also highlighted that the language used in science textbooks written in English is too difficult for students to comprehend (see e.g., Gyasi, 2013, Hu et al., 2021,).

An important issue to be addressed with respect to text comprehension is the percentage of words above the CEFR A2 target level. The analysis of selected texts shows that almost one third of the words analysed are beyond CEFR A2, namely, B1, B2, C1 and C2, which raises the question how students can understand science in English when the content language is above their proficiency level. There are also words categorised as Unlisted, which includes those that have not been assessed for difficulty according to the CEFR level. Unlisted words can range from CEFR A2 to C1 and are not yet included in the database of EVP (see Unlisted in Table 3). The findings indicate that the adoption of science textbooks in primary schools under the DLP needs to be reviewed carefully. It is necessary to ascertain the readability level before they are submitted for review to ensure that books adopted are within the proficiency level of the intended students. In addition, a glossary for difficult scientific words should be provided to support text comprehension.

Past studies indicate that students' reading comprehension is highly correlated with their science performance (Cromley 2009; Neri et al., 2021). This explains why it is crucial to address the issue of text complexity arising from linguistic elements in the primary science textbooks adopted for use in DLP. Teachers play a vital role as mediators of knowledge to enable primary school students from Years 1 to 6 to develop sufficient understanding of the scientific knowledge appropriate for their age and level. To perform this mediating function adequately, teachers first need to know what non-technical words are beyond their students' level of proficiency, so that they can manage them in their science classroom to improve comprehension. It is also important for teachers to deal with technical scientific terms which are abstract and polysemous because they can affect students' understanding of the textbook.

With regard to the proficiency level of teachers, the Ministry of Education stipulates that those who meet the English language requirement and whose ability is certified by the headmaster are allowed to teach science and mathematics in English. For now, teachers are required to obtain a score of at least C in English in SPM (Ministry of Education Malaysia, 2020). It is also important to note here that SPM is a national exam taken by all Form 5 secondary school students in Malaysia before continuing their studies at tertiary level. Form 5 English may not be adequate, but this is believed to be a temporary measure in view of the urgency to implement DLP. At present, English teachers are required to have the proficiency of MUET Band 5 (equivalent to CEFR C1) (Ministry of Education Malaysia, 2019). We would like to suggest to Ministry of Education that science teachers need to obtain MUET Band 4 (equivalent to CEFR B2) before they can teach science and mathematics in English under DLP.

The findings of this study have unpacked the often-cited challenges on readiness of teachers and students in managing EMI (see, e.g., Ananthan & Mohd Said, 2019; Ellili-Cherif, 2014; Poon & Lau, 2016) in the classroom with respect to lexis and sentence structure which contribute to text complexity. The findings suggest a need for a staged introduction to scientific terminology by including corresponding forms in L1 and in English. Students have to know the scientific concepts before attempting to read texts containing them. Past studies have shown a significant gap between policy intent and implementation (see e.g., Kirkpatrick, 2016) which suggests that despite the overt planning, there is insufficient capacity at the level of classroom implementation.

Finally, while acknowledging the limitations of textbooks as a data source in view of their potential for replacement, the complexity of scientific language remains a challenge. These findings call for innovative approaches to the language of science within the DLP. This study lays the groundwork for future research investigating strategies to enhance language accessibility in primary science textbooks for students with diverse linguistic backgrounds.

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FLIPPED CLASSROOM METHODOLOGY TO IMPROVE ENGLISH WRITTEN COMPREHENSION IN EARLY CHILDHOOD EDUCATION STUDENTS

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ABSTRACT

Flipped classroom is a methodology which refers to the teaching process that reverses the way in which the contents of a subject are worked on. Several studies have shown that the flipped classroom methodology increases student participation and interaction with teachers. In this study, we analysed the degree of improvement in students' English written comprehension after taking a subject in English for a semester using the flipped classroom methodology. A quantitative study was conducted using a written test both at the beginning (pre) and end (post) of the semester to find differences in the results obtained in both tests through direct observation. The study was conducted at a Spanish public university with students of the Early Childhood Education Degree during the last academic year. For the selection of the instrument, checking its external validity relationship, five experts conducted the validation process providing a quantitative assessment on a Likert scale following Lawshe's content validity relationship model. Results showed a significant improvement in their written comprehension after the data was analysed using the JASP statistical programme. We could observe that the difference in the means obtained in each part of the test and in the overall standing is close to or exceeds the point difference.

Keywords: Early Childhood Education Degree; English language; flipped classroom; quantitative study; written comprehension

Introduction

The flipped classroom model refers to an inverted classroom in which the contents are first presented to the students outside the classroom through explanatory videos, online games, and other resources while class time is dedicated to practice, applying the knowledge acquired through collaborative activities and discussions. According to Sosa Diez et al. (2021), it is necessary to conduct a student-centred methodology, based on active and collaborative tasks in which the teacher acts as a guide, providing support and assistance. The role of the teacher is no longer that of a transmitter of content, nor are students considered to have absolute knowledge.

The flipped classroom can address the needs of the students allowing teachers to personalise the students' education. Flipping the classroom establishes a framework that ensures that students receive a personalised education which is tailored to their individual and unique needs (Bergmann & Sams, 2012). The review shows a deep concern about improving written comprehension in English among university students. Use of the flipped classroom model among Early Childhood Education students has not been investigated.

The study investigated whether there is an improvement in the written comprehension of Early Childhood Education Degree students after being taught a subject in English for one semester using the flipped classroom methodology in class.

Theoretical Framework

The current Spanish legislation (Organic Law 3/2020) states that the students' English level at the end of their Baccalaureate studies corresponds to level B1, which agrees to an intermediate level within the independent user according to the Common European Framework of Reference for Languages (hereinafter "CEFR").

It has been more than two decades since the higher education system was restructured by means of the so-called "competences", understood as the set of knowledge that enables students to deal with situations specific to their academic profile (Crespo, 2022). Royal Decree 95/2022, which establishes the organisation and minimum teaching requirements for Early Childhood Education, defines competences as skills that are considered essential for students to progress with guarantees of success in their educational pathway and to face the main global and local challenges.

The CEFR recognises three different types of users: A (basic), B (independent), and C (proficient) with two levels within each user. Thus, the following proficiency levels were defined in the CEFR: A1 (beginner), A2 (elementary), B1 (intermediate), B2 (upper-intermediate), C1 (advanced) and C2 (very advanced). In addition, for each level, the CEFR establishes the following skills that students must acquire listening comprehension, written comprehension, oral expression, and written expression. Besides, the CEFR includes several skills within written comprehension: grammar, idiomatic expressions, vocabulary and reading texts.

Level B1 is recommended in the teaching guide for the English subject taught during the second semester of the first year of the Degree in Early Childhood Education at a Spanish public university. This subject has a teaching load of six credits and is compulsory for all the students. Therefore, students should not have any problems following the course correctly in English.

Written Comprehension in English

Reading and written comprehension have traditionally been the most complex aspects of educational research in recent years according to Albarracín Vivo et al. (2022). Consequently, the number of authors focusing on them in their research has grown exponentially in recent years. According to Martínez and González (2019), students read and write large amounts of texts, although in most cases with a non-educational purpose due to the prevailing culture of immediacy. This means that pupils show serious problems or deficiencies in producing a written text (written expression) or understanding it (written comprehension), as they are more familiar with spontaneous texts from instant messaging.

Prado and Escalante (2020) conducted a study to establish the degree of relationship between different learning strategies and written comprehension among students at a private university. The results revealed a significant relationship between learning strategies and the comprehension of written English texts.

Nuñez et al. (2020) stressed that an important aspect to highlight in the comprehension of English texts is that the students can develop skills to activate prior knowledge, formulate assumptions, and contrast ideas by understanding the text and context. Written comprehension in a foreign language helps to improve the type of appropriation of concepts that correspond to a particular discipline or field of knowledge.

English, as a global language (lingua franca), is required in many fields of work and academia. Therefore, developing written comprehension skills in English is essential for communicating and working in both national and international contexts. The acquisition of written comprehension is an effective tool to improve vocabulary, reading, and grammar. As stated by Birello and Gil (2014), written comprehension fosters critical thinking and reflection as students must analyse, evaluate, and put into context the information they read.

Educational research on written comprehension has increased in recent years (Aziza & Abu, 2019). Its consideration as one of the most complex fields of research has been one of the reasons why it has a smaller number of authors than the rest of the linguistic skills. This competence is a fundamental skill for the teaching of any language, and in the case of English as a foreign language, it enables learners to understand and contextualise written texts and communicate effectively what they feel, want or need (Nieva et al., 2020).

Within the framework of higher education, written comprehension has become an efficient tool for students' academic, relational and professional development. In addition to strengthening this understanding, the teacher has a mediating function among students and between them and the different objects of knowledge. In addition, part of the problem of not acquiring written comprehension stems from the fact that educational institutions do not have sufficient training structures to guarantee successful practices, which limits the development of actions that favour the acquisition of a second language.

Written comprehension responds to society's needs, labour competences, as well as the internationalisation of higher education, the development of linguistic competence and progress in cognitive and relational skills among students (Bulté & Housen, 2018). Therefore, teaching written comprehension should be an integral part of the English subject in this degree. Obviously, at a university level, we cannot extrapolate the situation to all contexts since it depends on the type of training for students.

The promotion of written comprehension as a methodological strategy has a significant impact on students' learning as it allows them to reinforce what they have already learned through reading, writing, and the contextual expression of content (Marín & Hernández, 2022).

The Flipped Classroom Methodology

New technologies continue to transform university teaching in different disciplines, proposing ways in which it differs from traditional methods. The relevant use of ICT and the innovation processes that incorporate them take on greater importance when considering that students today are distinguished by their technological skills. This justifies the development of initiatives aimed at pedagogical innovation through the incorporation of ICT. In this context, it is worth noting that activities accompanied by technologies are motivating in foreign language learning, as they promote interaction between students, offer the possibility of having contact with the real and functional use of the language and constitute a great source of authentic material that improves communicative competence (Zarrinfard et al., 2021).

Digital technology has profoundly influenced various aspects of life, including teaching pedagogy. In the last years, innovative teaching methods such as Massive Open Online Courses (MOOCs) and flipped classrooms have been introduced (Shaw & Patra, 2022). Similarly, technology implementation can significantly benefit both in-class and out-of-class learning experiences (Nja et al., 2022).

In this scenario, the pedagogical model known as the flipped classroom, a term coined by Bergman and Sams (2012), refers to the teaching process that reverses the way in which the contents of a subject are worked on. These two chemistry teachers were motivated to support the learning of students who did not attend class for various reasons. Therefore, they promoted the use of filming classes and realised that this resource not only favoured those who did not attend, but also those who attended regularly, because it allowed them to review, deepen the content and resolve their doubts (Boubih et al., 2020).

Flipped classrooms in English teaching allow for better time management so that students can resolve doubts, conduct group exercises, and participate in collaborative practices, favouring the development of communicative competence (Masero & Albort, 2023). According to Umar and Ko (2022), flipped classrooms foster higher-order thinking, enhance teaching, improve speaking skills, increase student engagement, and develop social interactions and critical thinking skills.

The opportunity offered by the flipped classroom when applied to English teaching contrasts with that offered by a predominantly grammatical and teacher-centred curriculum, which hinders communicative interaction in the classroom. When students engage in real communication, they use their natural strategies for language acquisition, which enables them to learn how to use the language (Guayasamin & Inga, 2023).

Numerous studies have shown that the flipped classroom model encourages student participation and interaction with teachers. This shift to digital devices in the classroom improves student engagement as it allows for a range of interactive activities, such as discussions, collaborative and cooperative work (González et al., 2020). We offer an analysis of different studies related to the flipped classroom methodology in the English classroom.

Aguayo et al. study (2019) studied 56 students' perceptions of the incorporation of the flipped classroom methodology in the subject of Communicative English in Architecture and Chemical Engineering at a public university in Chile. The results showed that students valued the availability of the videos with the contents, which they could review before the face-to-face class. Martínez (2019) applied this methodology to improve English grammar learning in two equivalent groups of adult students.

Rodríguez and Cedeño (2020) studied flipped classroom as a strategy for significant learning of the English language using an exploratory-bibliographic documentary method. They showed that the innovative pedagogical model of the flipped classroom was an advantage for the scope of meaningful learning in English.

Roohani and Etemadfar (2021) investigated the effect of the micro-flipped methodology on English learners' speaking fluency in comparison with the traditional face-to-face teacher-fronted methodology in a group of 40 intermediate-level Iranian learners. The analysis of the data revealed significant differences in the measures of fluency. On the other hand, Yulian (2021) proposed improvement in reading through the flipped classroom teaching model of EFL in 37 higher education students. The results showed that this teaching model enhanced the students' critical reading in terms of accuracy, clarity, precision, depth and relevance.

Fernández (2022) analysed the influence of this methodology on the attitudes of a group of 40 students towards the subject "Language learning through ICT" by means of a practical classroom experience. The results revealed students' preferences for the flipped classroom methodology vs. traditional approaches. By contrast, Mayer et al. (2022) listed some requirement criteria for using the flipped classroom methodology: user perception, lecturer, and technology.

Jiménez (2023) implemented the flipped classroom methodology in an English reading comprehension course, similar to our study. This study addressed an intervention with the inverted classroom model for a reading comprehension course in English for first-year students at a university located in Mexico. Finally, Jia et al. (2023) evaluated a set of design principles for an online flipped classroom to support students' learning outcomes.

Methodology

In this study, we followed a non-experimental observational design (ex-post-facto) since there was no manipulation of variables and participants were not assigned to experimental and control groups. Within this design, we conducted a descriptive study with a single group using two multiple-choice written tests conducted throughout the semester (at the beginning and end) to collect quantitative data on the participants performance. The independent variable was the selection of the selected students, while the dependent variable was the written test consisting of 78 multiple-choice questions that the students had to complete twice.

Participants

A study was conducted with 56 undergraduates enrolled in the English in the Degree of Early Childhood Education at a Spanish public university in the 2022-2023 academic year. The students were given a written test, administered in two different situations: at the beginning of the semester (pre-test) and at the end (post-test). In addition, we conducted direct observations of class projects.

During the last academic year, the Degree in Early Childhood Education had 340 students in the first course, divided into five groups, 307 of whom took the English subject. We did not apply the formula proposed by Fischer and Navarro (1997) to select a finite sample, which would have required the participation of 170 students since the selection criteria are not representative of the assignment. Therefore, the selected sample of 56 students belonging to one of the groups represented 18.2% of the student population

However, as stated by Gómez-Nuñez et al. (2020), the number of participants is not linked to their representativeness but to the information potential they can offer. In fact, the sample we provide is justified by the quality of the data obtained to the detriment of a larger number of students.

The selected sample of 56 students aged between 18 and 25 comprised 54 female students (96.4%) and two male students (3.6%). Regarding nationality, 55 students were Spanish (98.2%), and only one was Turkish (1.8%). It is also important to note that all students enrolled in the group voluntarily participated in the study.

Instruments

Our study mainly used two data collection techniques: a written test taken twice during the semester and a direct observation of various projects in class. For the written tests, a diagnostic test available on the market was used. Before choosing the test, the test characteristics and the external validity were checked. For this purpose, the validation was conducted by five experts in the field, who were asked to provide a quantitative assessment on a Likert scale from 0 (strongly disagree) to 5 (strongly agree) following Lawshe (1975) content validity relationship (CVR) model.

Following their considerations, a placement test from Oxford University Press was chosen, with 78 questions consisting of four dimensions related to both the learners' knowledge of the language and the written comprehension: 24 grammar questions, 24 idiomatic expression questions, 20 vocabulary questions, and 10 reading questions. This test was performed individually on both occasions in class. All questions in the test were multiple-choice with four different options. The same diagnostic test was used on both occasions to conduct the study. As Mendoza and

Ramírez (2020) state, the use of the same research instruments validates the results and avoids distortions in their interpretation.

To prevent possible negative effects of the test, Cronbach alpha coefficient was used to check the internal consistency of the test, which yielded a value of .81. This value indicates that the instrument was highly reliable with high internal consistency and reliability, and its measurements were stable and coherent.

On the other hand, direct observation to check their written comprehension improvement was developed through the completion of seven projects related to the theoretical contents of the subject throughout the course that the students had to perform individually in class. In these projects, which were carried out every two weeks, students had to write their work in English, combining purely linguistic content with specific didactic ones by reading texts or fragments.

These seven projects that the students had to carry out in the practice class were as follows: designing an activity appropriate to each language competence; designing an activity related to each of Krashen (1982) hypotheses; designing an activity according to the teacher role in class; designing a class session by choosing a method; finding three websites to use in class; designing an activity for each skill; and designing a class corner.

Data Collection Procedure

The data collection and analysis procedure consisted of three parts. We followed the indications of Souza et al. (2017), who divided the data collection procedure into three phases: the exploratory phase, the fieldwork, and information processing. To do so, we corrected the answers given by the 56 students in both tests and directly observed the projects performed in class.

The exploratory phase is the preliminary study which clarifies the procedure used to constitute the fieldwork. In this phase, we delimit the problem and objectives of our study and develop them on a theoretical and methodological level. In addition, we chose the instruments to be used and established a timetable for implementation, the space to be used, and participants.

The second phase is based on the available fieldwork. We put into practice the theoretical construction elaborated in the previous phase with the choice of the two days necessary for the collection of the quantitative data. This second phase was performed at two specific times to provide us with the data: February (pre-test) and June (post-test). The pre-test was distributed at the beginning of the semester in February 2023 to detect the students' level of prior knowledge. And the second test was conducted in June at the end of the semester (post-test), to determine whether there had been any improvement in the students' written comprehension analysing the differences from the results obtained.

Between both tests, the students had three hours a week of class in English, two theoretical and one practical, where they worked on both linguistic and teaching contents. During the theoretical class, we worked with an intermediate-level textbook in which they practised grammar, vocabulary, and reading exercises. In the practical class, the students performed seven individual projects related to the theory in which they had to correctly use both grammar and vocabulary as well as the idiomatic expressions seen in class. Through direct observation, we recorded data on the quality of students' written productions during the projects. This observational research technique allowed us to collect the necessary information to justify the difference in the results obtained from one test to another by means of the JASP statistical program.

Finally, the third phase concerns the overall evaluation, understanding and interpretation of the empirical data articulated with the theory on which our study is based. This last phase was conducted at the end of the semester, always guaranteeing the anonymity of the students, as following the ethical code is crucial in any research. Research should provide value that outweighs any potential risk or harm, aiming to maximise the research benefits and minimising the potential risk of participants. All potential risk should therefore be mitigated to protect the dignity, rights, and welfare of research participants.

Data Analysis

The results were transcribed for analysis using Microsoft Excel, a descriptive statistical data processing software provided by Microsoft. The procedure followed consisted of preparing an Excel spreadsheet and entering and processing the data for each test using the JASP statistical programme to analyse the inferential data obtained.

First, the Kolmogorov-Smirnov normality test was used to measure the degree of agreement between the data set distribution and the theoretical distribution determined. The calculated Kolmogorov-Smirnov value (Ks c-value) was .1065, whereas the Kolmogorov-Smirnov table value (Ks t-value) was .1179, with a p-value greater than >.1. As the c-value was lower than the t-value and the p-value was higher than the accepted degree of significance (.05), we decided to use a parametric test (student t-test) to analyse the results.

Results and Discussion

Pre-Test

The initial test (pre-test) was performed at the beginning of the semester in February to obtain information about the students' prior knowledge. Since all students came from compulsory secondary education, their level of written comprehension was expected to be acceptable.

The test consisted of 78 multiple-choice questions divided into four dimensions: grammar (24 questions), idiomatic expressions (24 questions), vocabulary (20 questions) and reading (10 questions). To take the test, the students were given the two hours of class time during which the theory session lasted.

Table 1 shows the descriptive statistics of this initial test obtained from the JASP programme. The following data were included for each dimension: mode, median, mean, standard error, standard deviation, coefficient of variation, variance, skewness, kurtosis, Shapiro-Wilk p-value, range, minimum, and maximum.

Table 1
Pre-Test Descriptive Statistics

	Grammar	Everyday Expressions	Vocabulary	Reading	Total
Mode	6.751	6.611	7.960	9.773	7.492
Median	7.000	6.800	7.500	9.000	7.300
Mean	6.762	6.760	7.250	8.393	7.123
Standard error	0.208	0.203	0.226	0.225	0.177
Standard deviation	1.553	1.522	1.690	1.681	1.327
Coefficient of variation	0.230	0.225	0.233	0.200	0.186
Variance	2.413	2.315	2.855	2.825	1.761
Skewness	-0.925	-0.296	-0.298	-1.178	-0.390
Kurtosis	1.855	-0.406	-0.822	1.233	-0.592
Shapiro-Wilk	0.950	0.963	0.959	0.851	0.965
Shapiro-Wilk p value	0.021	0.085	0.056	<.001	0.101
Range	8.350	6.300	6.500	7.000	5.100
Minimum	1.250	3.300	3.500	3.000	4.100
Maximum	9.600	9.600	10.000	10.000	9.200

From the information in Table 1, we can extract some significant data. Of the 78 questions in the test, the range (numerical value indicating the difference between the maximum and minimum values) was 5,100 points, the mean was 7,123 points, and the mode (value that appeared most frequently) was 7,492 points. The kurtosis, which determines the degree to which the values of a variable are concentrated around the zone, was negative (-0.592), implying that the distribution was relatively flat. Skewness was also negative (-0.390), indicating that the distribution of the data was skewed to the right and had a negative orientation. The highest score was 9.2 points, while the lowest was 4.1 points. Fifty-two students (92.9%) passed the test. As the Shapiro-Wilk p-value is greater than the significance level, we can state that the data from this test have a normal distribution.

Based on the results from each part of the test, the first dimension consisted of 24 grammar questions with a range of 8,350 points and a mean of 6,762 points, with a standard deviation of 1,553 and a coefficient of variation of 0.230. The highest score was 9,600 points, whereas the lowest was 1,250 points. This first part was passed by 51 students (91%). The kurtosis was positive (1.855), indicating a relatively high distribution, but the skewness was negative (-0.925); therefore, the distribution was skewed to the right.

The second block consisted of 24 idiomatic expressions questions. The range was 6,300 points and the mean obtained was 6,760 points with a deviation of 1,522 and a coefficient of variation of 0.225. In this second part, the highest score was again 9,600 points. The lowest score was 3,300 points. Forty-eight students passed this second part (84.5%). On this occasion, both kurtosis (-0.406) and skewness (-0.296) were negative, indicating a relatively flat distribution skewed to the right.

The third part consisted of 20 vocabulary questions with a range of 6,500 points and a mean of 7,250 points, with a standard deviation of 1,690, and a coefficient of variation of 0.233. On this occasion, the Turkish student obtained the highest score with all questions being correct. In contrast, the lowest score was 3,500 points. Fifty-three students passed this part (94.6%). Here, both skewness (-0.298) and kurtosis (-0.822) were negative.

Finally, the fourth block consisted of ten reading questions with a range of 7.000 points and the mean obtained was 8.393, with a deviation of 1.681 and a coefficient of 0.200. In this part we found 19 students with all the questions correct. However, one student had only three correct answers. This part was the highest scoring with 54 students passing (96.4%) and where the kurtosis was positive (1.233) indicating a relatively high distribution. In contrast, the skewness was negative (-1.178), and the data were quite skewed to the right. This last block was the only one that had a p-value below its significance level, indicating that the data did not have a normal distribution.

Post-Test

The second test (post-test) took place in June at the end of the semester, after taking the course and completing the seven projects in the practical sessions. Therefore, the results are expected to improve with respect to the initial test. The descriptive statistics of this second test are shown in Table 2.

Table 2
Post-Test Descriptive Statistics

	Grammar	Everyday Expressions	Vocabulary	Reading	Total
Mode	8.990	8.448	8.943	9.999	8.589
Median	7.900	7.900	8.500	10.000	8.250
Mean	7.565	7.845	8.250	9.071	8.025
Standard error	0.221	0.176	0.199	0.216	0.165
Standard deviation	1.652	1.317	1.489	1.616	1.234
Coefficient of variation	0.218	0.168	0.181	0.178	0.154
Variance	2.728	1.736	2.218	2.613	1.523
Skewness	-0.489	-0.427	-1.256	-2.745	-0.918
Kurtosis	-0.388	-0.574	1.852	10.382	0.572
Shapiro-Wilk	0.941	0.953	0.892	0.627	0.963
Shapiro-Wilk p value	0.009	0.028	<.001	<.001	0.005
Range	7.100	5.000	7.000	9.000	5.400
Minimum	2.900	5.000	3.000	1.000	4.600
Maximum	10.000	10.000	10.000	10.000	10.000

Of the 78 questions, the range obtained was 5.400 points, the mean 8.025 and the mode 8.589. The kurtosis was positive (0.572), indicating a relatively high distribution, while the skewness was negative (-0.918); therefore, the data were skewed to the right with a negative orientation. One student scored all questions correctly, while the lowest score was 4.600 points. Fifty-four students passed the second test (96.4%). Considering the Shapiro-Wilk p-value, we can state that the data of this second test also have a normal distribution.

Analysing each dimension, the grammar questions had a range of 7.100 points, the mean 7.565 points, with a standard deviation of 1.652, and a coefficient of variation of 0.218. The Turkish student was the only one who answer all the questions correctly while the lowest score was 2.900 points. Fifty-three students passed this part (94.6%). Both kurtosis (-0.388) and skewness (-0.489) were negative, indicating a relatively flat distribution skewed to the right.

The second part consisted of 24 idiomatic expression questions. The range was 5,000 points and the mean was 7,845 points, with a deviation of 1.317 and a coefficient of 0.618. On this occasion, two students got all the correct answers, including the Turkish student (lo quitaría). The lowest mark was five points. All students passed this second part in which again the kurtosis (-0.574) and skewness (-0.427) were negative.

As for the third block, the 20 vocabulary questions, had a range of 7,000 points and the mean 8,250 points, with a standard deviation of 1.489 and a coefficient of variation of 0.181. Six students managed to get all the questions right, one of whom the Turkish student was. On the other hand, one student scored only three points. Fifty-four students passed this part (96.4%). In this block, the kurtosis was positive (1.852) whereas the skewness was negative (-1.256), indicating a relatively high distribution skewed to the right.

Finally, the fourth part corresponded to the ten reading questions with a range of 9,000 points and a mean of 9,071 points, with a deviation of 1,616 and a coefficient of 0.178. Thirty-four students got all the answers in this part right, one of them being a Turkish student. The counterpoint came from another student with only one point. Almost all students passed this last part (55 students, 98.2%). As in the previous block, the kurtosis was positive (10.382), whereas the skewness was negative (-2.745).

In these last two parts of the test, the Shapiro-Wilk p-value was below the significance level, denoting a non-normal data distribution, as the data were mostly high. Both the means of each test (8.250 and 9.071) and mode (8.943 and 9.999) were significantly higher than those obtained in the other parts of the test.

Regarding the development of the projects through direct observation, we observed a significant improvement in the students' written comprehension results from a qualitative point of view, although we could not quantify that improvement from a quantitative point of view.

Students' Written Comprehension Scores Before and After Taking an English Subject

The statistical programme JASP allowed us to find that the data obtained had an overall normal distribution. In the previous section, we applied the parametric student t-test to collect the information. This test was used to determine whether there was a significant difference between the means of two tests assuming that the variables had a normal distribution. The inferential statistics are shown in Table 3. Cohen D is a measure of effect size based on the difference between the two means and measures the relative strength of the differences.

Table 3
T-student Test

	Mean	Mean difference	t value	p value	Cohen D	Cohen ET D
Grammar Pre Grammar Post	6.762 7.565	0.804	5.197	<.001	0.694	0.107
Idiomatic expressions Pre Idiomatic expressions Post	6.760 7.845	1.085	7.083	<.001	0.947	0.128
Vocabulary Pre Vocabulary Post	7.250 8.250	1.000	4.609	<.001	0.616	0.148
Reading Pre Reading Post	8.393 9.071	0.679	2.731	0.008	0.365	0.156
Total Pre Total Post	7.123 8.025	0.902	8.682	<.001	1.160	0.104

First, we observe that the difference in the means obtained both in each part and overall is close to or exceeds the point difference. The only part in which the difference was smaller was reading because the first test results were already quite high and the number of questions was smaller, so the margin for improvement was small. This means that both the t-value (2.731) and Cohen D (.365) were lower, so this dimension effect size was low. This part was the only one in which the p-value (.008) was above the significance level.

Second, the other three parts of the test yielded quite high t-values and very high Cohen D-values, considering that values above 0.5 in Cohen D indicate high or very high effects. These data indicate that there are quite significant differences in the dimensions of grammar (5.197 - .694), idiomatic expressions (7.083 - 0.947) and vocabulary (4.609 - .616). These values were similar for both the grammar and vocabulary dimensions, with slightly higher values for idiomatic expressions.

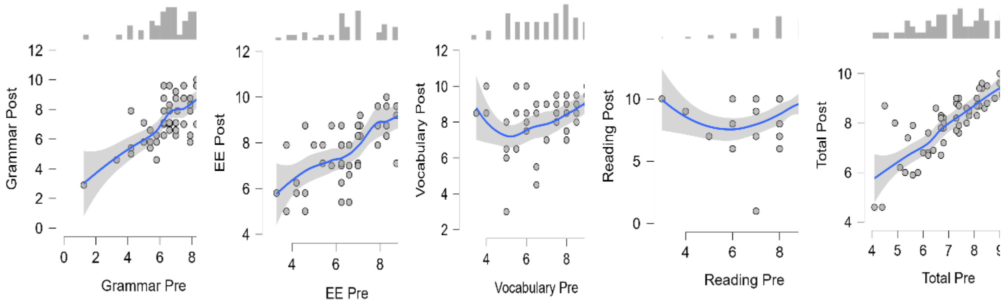
Third, the differences at the total test level are particularly striking. Cohen D is greater than one point (1.160), denoting a very high effect size, and an extremely high t-value (8.682). This shows that the differences between the two tests are quite significant, corroborating our initial hypothesis. Students' written comprehension has significantly improved after taking an English subject using the flipped classroom methodology for one semester.

By conducting several practical projects in class, we were also able to verify the positive evolution of the students throughout the semester through direct observation, which was reflected in the results obtained in the second test. Along the semester, we could check how their written comprehension improved being able to reduce the number of errors as well as the time devoted to each project. Therefore, we can deduce that the methodology used supported an improvement in the students' written comprehension as Jiménez (2023) also suggested in his study. The following scatter graph shows the differences between both tests for each part and the overall results.

In our research, we have been able to demonstrate that by using the flipped classroom methodology, students could improve their English written comprehension substantially, partially coinciding with Yulian (2021). However, Martínez (2019) also found that students improved their performance in other skills and foreign language knowledge.

Figure 1

Dispersion of the Results in Both Tests



Conclusion

The study found a significant improvement in students' ability to improve written comprehension after taking a subject in English supported by the flipped classroom methodology. We were limited in analysing the results obtained in only one of the five groups that comprised the Degree in Early Childhood Education course. Considering the limited teaching load of the subject, we focused on the written comprehension skill, forgetting other skills. A significant weakness addressed is that we could not implement a delayed post-test with the participant time after implementing the post-test to check the validity of our results. Future research can investigate other groups of students taught using the flipped method and implement a delayed post-test.

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GENDER-INCLUSIVE LANGUAGE USAGE IN ACADEMIA: EXPLORING PRE-SERVICE TEACHERS' PERSPECTIVES

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ABSTRACT

The utilisation of gender-inclusive language, aimed at promoting equal treatment between men and women, has sparked both positive and negative reactions in Spanish society. Consequently, it has evolved into an ideological issue that transcends linguistic boundaries. This study examines the perceptions of pre-service teachers regarding the use of non-sexist language in the academic environment. Specifically, it analyses the current level of usage and acceptance among the study population, while also investigating the correlation between the language of instruction (Spanish vs. English) and participants' stance on this matter. Given the ongoing debate surrounding its usage, it is essential to identify the factors that influence the opinions of student teachers. Ad hoc questionnaires were administered to a non-probabilistic sample of 348 undergraduate students from Spain. The results indicated widespread adoption of inclusive language, with most participants considering it necessary in daily life and academia. Non-biased linguistic forms were notably prevalent in the L1 context, and nearly half reported using them to enhance academic performance. Age and academic year did not significantly influence these perceptions, as confirmed by Spearman's correlation analyses. However, gender and university degree emerged as critical factors, with female participants showing a stronger inclination toward its use for academic purposes.

Keywords: equity; language instruction; non-sexist language; student teachers; teacher training

Introduction

Inclusive language (henceforth, IL) can be defined as a linguistic register aimed at avoiding any kind of discrimination against social groups traditionally marginalised, such as women, the LGTBIQ+ community, Black people, and disabled individuals, among others (Mañoso-Pacheco & Sánchez-Cabrero, 2023; Parra & Serafini, 2021). Thus, IL is another tool in the current social fight for equality. Though not new, according to Taheri (2020, p. 152), "in the late '70s, the term Politically Correct (PC) entered the public lexicon" with the purpose of not offending any social group with language or behaviour. From that moment on, and especially in the last decade, IL has become a social matter, provoking controversy between those who consider it a key element in the fight for equality and those who believe that language plays a secondary (even an irrelevant) role in that fight. From a strictly linguistic perspective, those in favour of IL highlight the Linguistic Relativity Hypothesis (Wolff & Holmes, 2011), claiming that language shapes our thought and, therefore, the way we represent reality. Considering this, a change in language may lead to a change in society. The effectiveness of IL, however, has been questioned by some factions within the discipline of gender studies, asserting that it has not produced "concrete results", such as the eradication of violence against women, closing the gender salary gap, or altering the mindset of the population in the pursuit of gender equality (Gasparri, 2019).

Although IL affects any minority group, it is often misunderstood and primarily associated with gender issues, especially the binary division of "male-female" (Papadopoulos, 2022). Regardless of the discrepancies in the conceptual definition of IL, the literature has portrayed women as one of the factions in society that have experienced higher levels of discrimination (Sánchez-Cabrero et al., 2023). Evidence indicates that women are still excluded from certain public activities and decision-making processes, and that they are commonly underrepresented in the media discourse (Billy et al., 2022; Mañoso-Pacheco, 2018). In light of the above, this research focuses on the use of IL to address the exclusion of women in discourse and, consequently, in social life.

In the Spanish language, various solutions to avoid sexist language have been proposed. According to Slemp (2021), during the 80s, doublets were used (*el profesor y la profesora*), but this approach contradicts the principle of language economy. With the widespread use of personal computers, the "at" sign (@) to include both men and women became popular. However, it posed two problems: it was unpronounceable, and it did not represent non-binary individuals. To avoid the exclusion of non-binary groups, the -x morpheme was suggested, though it encountered the same pronunciation problem. Therefore, a fourth option was proposed: the creation of a new morpheme, -e (instead of -o and -a, which commonly represent male and female genders, respectively). This new morpheme does not pose any pronunciation problem and is inclusive of non-binary individuals. Slemp's (2021, p. 67) research on Twitter language concluded that "the most popular inclusive marker was -e" (*les niñes*, instead of *los niños y las niñas*).

As mentioned above, this new linguistic reality provokes controversy between those who believe that language is a tool for social change and those who do not. The latter claim that using IL does not raise awareness; instead, it is seen as a superficial gesture aimed at demonstrating political correctness without leading to real social change. Moreover, they assert that the proposed solutions are either unpronounceable (@, -x) or imply a deeper transformation of the Spanish grammar. The creation of the -e morpheme results in morphological, syntactical, and semantic modifications that must be analysed and regulated. Indeed, The Spanish Language Academy (2020, para. 5) issued a statement stating that "*este fenómeno (IL) es puramente gramatical y no es consecuencia del acuerdo expreso de una institución, sea política o cultural, antigua o contemporánea, española o extranjera*" [this phenomenon (IL) is purely grammatical and not the result of an explicit agreement by any institution, whether political or cultural, old or contemporary, Spanish or foreign].

Comité Editorial (2020) of Signo y Seña conducted a survey involving 13 scholars, focusing on three items: the influence of language on reality and *vice versa*; the possibility of developing a non-binary morphology in Spanish; and the feasibility of regulating language use while maintaining intelligibility as a key factor. Although the responses were diverse, these three items helped summarise the problem from a linguistic-scientific perspective. These are the topics that academics should delve into deeply, enabling the language of science to adapt to social reality.

Despite linguistic differences between languages such as Spanish and English (e.g., gender markers are more prevalent in Spanish grammar compared to English grammar), we encounter similar polarised positions. For example, the "use of the singular 'they' annoys some grammarians who argue that 'they' should only be used to refer to plural nouns" (Taheri, 2020, p. 155). Other examples of non-inclusive language in English include pronouns and possessives (he, she, his, and her) and nouns such as chairman, fireman, manmade, or manpower. Taheri (2020) suggests gender-neutral substitutions: chairperson, firefighter, manufactured, and human resources, respectively. However, due to the grammatical flexibility of English, it seems to be a better candidate for linguistic inclusion than Spanish (which has more gender markers), as "English is a malleable language that is open to shifts in vocabulary and usage" (Schulzke, 2014, pp. 235-236).

Research shows that women and non-binary individuals (especially youngsters) are more prone to use IL (Jiménez-Rodrigo et al., 2011; Parks & Roberton, 2005; Royo et al., 2021; Slemp, 2021; Taheri, 2020). Pesce and Etchezahar (2019) conducted research on the use of IL based on age (18-70-year-olds) and gender (346 females, 256 males, and 11 non-binary individuals) with 613 Argentinian participants. They found that women had a more positive attitude towards IL and claimed to use it more frequently. Interestingly, the youngest group (18-23-year-olds) and the eldest group (50-70-year-olds) did not view IL as positively as the 24-49-year-olds. Banegas and López (2021) emphasised the need for developing sociolinguistic awareness to raise consciousness about the use of IL. According to Banegas and López (2021, p. 345), "for various reasons, educational authorities may lack updated sociolinguistic arguments to guide discussions within educational communities, and instead, they rely on internal theories, personal beliefs, and purely prescriptive conceptions of language education". This idea can be extrapolated to the general population.

In the academic context, codes of practice to avoid language stereotyping are currently common at universities (Kalajdžisalihović, 2021). However, "the new terminology has not yet been officially adopted into the language and is barely known beyond the gender non-binary community within that language. Moreover, most language textbooks and teaching materials are not yet incorporating these new linguistic developments" (Djavadghazaryans, 2020, p. 270). Indeed, Parra and Serafini (2021) asserted that while many teachers are interested in using IL, some penalise their students for using IL. These authors also argued for the need to develop sociolinguistic and transcultural competences to equip students with the skills to adapt to real-time requirements and the diverse reality of the classroom.

García-Holgado et al. (2021) conducted research on the teachers' gender perspectives at the Universidad de Salamanca (Spain). They discovered that 70% of participants agreed with using gender-differentiating marks (-x and @); 57% affirmed using IL in their written discourse, but only 35% used it orally. Nonetheless, 88% of the respondents considered it important to incorporate IL into university teaching. Similar results, reflecting a positive attitude of teachers from the College of Teacher Education towards IL, were also found by Vizcarra-Garcia (2021) in the Philippines.

A study conducted by Tangen and Beutel (2017) explored the pre-service teachers' perceptions in Australia regarding their roles as future inclusive educators. The study concluded that these teachers did not have a uniform understanding of inclusion. The authors also observed that pre-service teachers, who embraced a broad view of diversity and were inclined to implement inclusive practices, including the use of IL, were in the early stages of recognising the importance of such practices. Similarly, Cutler et al., (2022) examined the emotional experiences of a group of pre-service teachers working with LGBTIQ+ students. These students required adjustments in language to avoid non-sexist language and to deconstruct past learning experiences. Despite the willingness of study participants to create inclusive environments through their communication, using non-gendered language was perceived as challenging and problematic.

Studies concerning students showed that the usage of IL was still generally poor (Kalajdžisalihović, 2021; Sauntson, 2018). Sauntson (2018) interviewed 20 LGBT+ identified students aged 13 to 25 from schools and colleges in the United Kingdom. These students reported experiencing more exclusion than inclusion and considered teachers' roles crucial in fostering inclusion. Additionally, they viewed English as a subject with higher potential for promoting IL. In the context of English as a Foreign Language (EFL), Kalajdžisalihović (2021) analysed 158 responses from 45 university students in response to five sentences. These students were asked to identify exclusive language and suggest alternative sentences. The results indicated that students were "unsure about the usage of language that is considered inclusive, especially when it comes to gender-neutral/IL in contemporary English" (Kalajdžisalihović, 2021, p. 86).

While there is extensive research on attitudes towards IL, examining perspectives across various social groups in different countries (Cutler et al., 2022; Kalajdžisalihović, 2021; Slemp, 2021), there is a shortage of research that explores the attitudes of prospective teachers towards IL. Furthermore, no previous studies analysed the correlation between the beliefs of pre-service teachers and variables such as gender, university degree, or the language of instruction. Our study therefore offers novel contribution, and our result can open up new avenues of inquiry.

This study examines the perceptions of pre-service teachers regarding the use of non-sexist language in the academic environment. The objectives of the study are to: (1) analyse the current level of usage and acceptance among the study population; and (2) investigate the correlation between the language of instruction (Spanish vs. English) and participants' stance on this matter.

By exploring these issues, the authors aim to deepen the understanding of IL and shed light on how the polarisation that has emerged in Spanish society about IL might affect the academic environment. The authors hypothesise that IL may be commonly used by prospective teachers, although this population may exhibit a lower sensitivity towards sexist language in English-medium instruction.

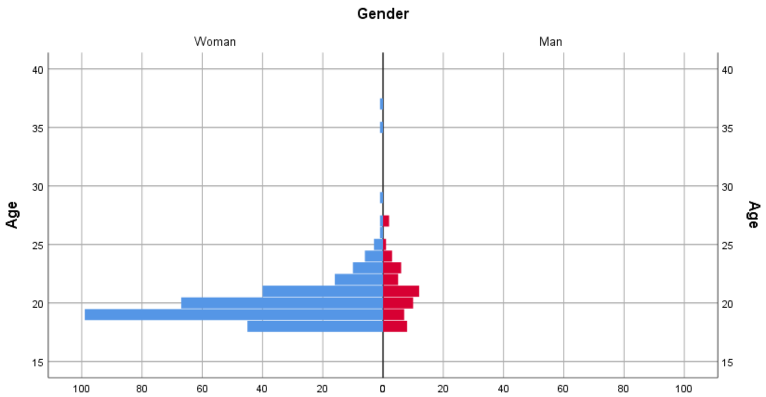
Materials and Method

Participants

The population for this study were trainee teachers in pre-primary and primary education programmes in Spain, which included those enrolled in the dual degree in pre-primary and primary education programmes. For this research, 348 prospective teachers from the Universidad Autónoma de Madrid (Spain) were selected, with ages ranging from 18 to 37 years and a mean age of 20.14 years (SD= 2.16). The majority of participants identified themselves as women, with the final sample consisting of 291 women (83.6%), 54 men (15.5%), and three (0.9%) who identified as either non-binary or preferred not to label themselves as male or female.

The sample was obtained using convenience sampling. Data were collected through voluntary participation, and informed written consent was obtained from the participants. The study participants were enrolled in the subjects "English as a Foreign Language I" and "English as a Foreign Language II" during the 2021–2022 academic year. Figure 1 displays the distribution of the sample concerning gender and age in a population pyramid. The population pyramid's composition excludes participants who chose not to identify themselves as either female or male as the objective is to depict the distribution of the two primary gender categories.

Figure 1
Population Pyramid Depicting Gender (Male and Female Only) and Age of the Participants in this Research



The gender imbalance (with over 80% of participants being female) illustrated in Figure 1 is a notable characteristic of the study population. This observation aligns with historical and current data from the Ministry of Universities of the Government of Spain (MUE). According to their report, in the 2021–2022 academic year, 62.7% of students in the arts and humanities degrees were female, as opposed to 37.8% male students (Ministerio de Universidades, 2023). Although the sample is representative of the overall population in this context, its gender disproportionality may significantly affect the perceptions, use, and/or acceptance of IL by trainee teachers.

Table 1 presents the distribution by frequencies (N) and absolute percentages (%), considering the variables of *university degree* and *academic year*.

Table 1
Sample Distribution by Degree and Academic Year

University degree	N	%
Pre-primary education	70	20.1
Primary education	189	54.3
Dual degree in pre-primary and primary education	89	25.6
Academic year	**N**	**%**
First	24	6.9
Second	204	58.6
Third	92	26.4
Fourth	25	7.2
Fifth	3	0.9
Total	348	100

As shown in Table 1, primary education was the most prevalent university degree. Most participants in the sample were in their second year of studies. The fifth year applied exclusively to dual-degree students, who could also be considered pre-primary and primary education students simultaneously, as their programme covers both areas.

Study Variables

This study analysed the impact of four attributive variables on the opinions of the study participants regarding IL, as described below:

- Gender: Nominal variable with three levels (male, female and non-binary or prefer not to say), determining whether the participant identifies with a specific gender category.

- Age: Discrete quantitative variable determining the age of the study participant.
- University degree: Nominal variable with three levels (pre-primary education, primary education, and dual degree in pre-primary and primary education), defining the participants' academic studies.
- Academic year: Ordinal variable with five levels (first, second, third, fourth, and fifth), defining the stage of academic development.

The concept of IL is characterised through several items related to the following seven variables concerning the use and perceptions of IL by the participants:

- Use of IL: Nominal and dichotomous variable (used or not used) determining whether the participant employs IL in a given context.
- Scope of IL: Nominal and dichotomous variable (everyday life or academic setting) concerning the context in which the IL can be applied.
- Need to utilise to IL: Nominal and dichotomous variable (awareness of the necessity or lack thereof) determining whether the participant considers the use of IL as necessary in a given context.
- Perception about IL: Nominal variable with three possible levels (negative, neutral, and positive) reflecting rejection, indifference, or acceptance of IL use in a given context.
- Role employing IL: Nominal and dichotomous variable (student or teacher) regarding the role of the individual using IL.
- Language of instruction for IL: Nominal and dichotomous variable (English or Spanish) concerning the language in which the subject is instructed.
- Evaluation of future IL use: Nominal and dichotomous variable (awareness of the need to use the IL in the future or not, and awareness of the need as a teacher to guide future learners in implementing IL or not), determining the participant's prospective evaluation of IL.

Evaluation Instrument

This study collected data using a questionnaire. The first part focused on assessing attributive information and defining the characteristics of the sample. It included the mandatory written informed consent form, as recommended by the World Medical Association (2013). In full compliance with the Research Ethics Committee regulation from the Universidad Autónoma de Madrid, the administration of surveys and questionnaires fell outside the scope of the application of Article 1.2. This research adheres to a non-interventional approach, guaranteeing participant anonymity, in accordance with the Spanish Organic Law 3/2018, of December 5th, on Data Protection and Guarantee of Digital Rights.

Following this, the questionnaire was divided into three main sections consisting of 12 closed-ended items. Section 1 (items 1-6) enquired about the participants' use and perception of IL in an academic context. Section 2 (items 7-10) addressed the participants' perception of IL use by professors. The final section, Section 3 (items 11 and 12) explored the participants' intention to use IL with their future students. The questionnaire exhibited satisfactory reliability, as measured by the Cronbach's Alpha *test* (α= 0.645). The relatively low number of items (12) and the limited number of response options (two or three, depending on the question) decreased this index considerably (Vaske et al., 2017).

The questionnaire demonstrated excellent validity and goodness of design as assessed by expert judgement. Prior to its implementation, three qualified university experts in the field of gender and education validated the questionnaire in July 2021. These reviewers were tasked with determining whether the items were adequate, relevant, and sufficient, and that they did not contain any errors, such as biased questions or misleading response options. The questionnaire underwent piloting and revision before distribution, involving a reference group of 15 student teachers.

To encourage participation, the questionnaire was administered in the participants' native language (Spanish) and hosted on the private server of *encuestafacil*, a web-based platform for conducting online surveys. This platform used the respondents' IP addresses as a filter to prevent multiple replies from the same computer, always ensuring the anonymity of the participants.

Research Design

This study utilised an ex post facto, cross-sectional, and descriptive research analysis of the use and perceptions of IL by pre-service pre-primary and primary teachers in Spain. For the descriptive analysis of the results, the distribution of frequencies and standard deviations of the scores were employed as indicators of central tendency (Sánchez-Cabrero et al., 2018).

In terms of inferential analyses, the Kolmogorov-Smirnov (K-S) test was initially employed to assess whether the data followed a normal distribution and to justify the use of parametric tests (Arigita-García et al., 2021). The results from the K-S test (K-S= .109) indicated a non-normal distribution (p= .000), rendering the use of parametric tests unsuitable. Consequently, contrasts of mean differences were conducted using the non-parametric Kruskal-Wallis test for independent samples to compare the results of the attributive variables, university degree and gender.

The non-parametric Wilcoxon-Mann-Whitney test for paired samples was applied to evaluate differences related to the language of instruction. Additionally, Spearman's rank correlation coefficient was used to measure the relationship between the general items on IL and the variables age and academic year. This non-parametric technique was also utilised to compare the paired scores evaluated via the Wilcoxon–Mann–Whitney test.

A minimum significance level of 95% (α= .05) was employed for this study. The *Bonferroni correction* was applied to adjust the significance level for comparisons involving categorical variables with more than two levels.

Results

Table 2 presents the descriptive statistics of each item of the questionnaire related to the participants' general perception of IL.

Table 2
Descriptive Statistics for Questionnaire Items Concerning the Participants' General Perception of IL (N=348)

		No		Not sure		Yes	
		N	%	N	%	N	%
1.	Generally speaking, is it necessary to use IL in everyday life?	53	15.2	48	13.8	247	71.0
2.	Generally speaking, is it necessary for students to use IL in the academic field?	53	15.2	44	12.6	251	72.1
3.	Have you ever used it to make a better impression on your professors and/or obtain better academic results?*	164	47.1	25	7.2	159	45.7
4.	According to your view, is it necessary for your professors to use IL in the academic field?	59	17.0	43	12.4	246	70.7
5.	In the future, do you think you will need to use IL in academia when you work as a teacher?	33	9.5	42	12.1	273	78.4
6.	In the future, do you think you will guide your pupils to use IL to communicate orally or in writing?	42	12.1	72	20.7	234	67.2

*For this item, the Not Sure option is replaced by Do Not Remember

From the results, it appeared that IL has been widely implemented and accepted among the population of trainee teachers in Spain. Seventy-one percent of the study's participants considered its use necessary in everyday life, and 72.1% of the research sample viewed it as necessary in the academic field for students. In the same vein, 70.7% of the participants believed that professors should use it in the academic field. Furthermore, a significant percentage (78.4%) claimed that they would need to use it in the future when working as teachers, and 67.2% would even recommend its use to their future students. It is also noteworthy that nearly half of the sample (45.7%) acknowledged that they had resorted to IL to make a better impression on their professors.

The high acceptance of IL use by trainee teachers was evaluated in consideration of the different attributive variables. Table 3 shows the distinct correlations measured with Spearman's rank correlation coefficient. In this analysis, the authors compared ordinal variables with each other, as well as with the quantitative variable age and the ordinal variable academic year.

The results clearly indicated that neither the age nor the academic year variable had a significant impact on pre-service teachers' perception of IL. Consequently, it can be concluded that the perception and use of IL were independent of the learners' age and the academic year in which they were enrolled.

Table 3

Correlations of the Questionnaire Items Regarding the Participants' General Perception of IL with Age and Academic Year

Item	Age	Academic year
1. Generally speaking, is it necessary to use IL in everyday life?	0.067	0.119
2. Generally speaking, is it necessary for students to use IL in the academic field?	0.055	0.076
3. Have you ever used it to make a better impression on your professors and/or obtain better academic results?	0.044	0.079
4. According to your view, is it necessary for your professors to use IL in the academic field?	0.037	0.029
5. In the future, do you think you will need to use IL in academia when you work as a teacher?	0.062	0.045
6. In the future, do you think you will guide your future pupils to use IL to communicate orally or in writing?	0.041	0.043

Regarding the variables gender and university degree, as they are nominal variables, the authors conducted an analysis using the non-parametric Kruskal-Wallis test for independent samples, as shown in Table 4.

Table 4

Significance of the Kruskal-Wallis Test for the Questionnaire Items Related to Participants' General Perception of IL Based on Gender and University Degree

Item	Age	Academic year
1. Generally speaking, is it necessary to use IL in everyday life?	0.000**	0.015
2. Generally speaking, is it necessary for students to use IL in the academic field?	0.000**	0.014
3. Have you ever used it to make a better impression on your professors and/or obtain better academic results?	0.687	0.002*
4. According to your view, is it necessary for your professors to use IL in the academic field?	0.001**	0.016
5. In the future, do you think you will need to use IL in academia when you work as a teacher?	0.023	0.002*
6. In the future, do you think you will guide your future pupils to use IL to communicate orally or in writing?	0.001**	0.002*

* = Significance greater than 95% (0.01) after applying *Bonferroni correction*.

Gender was a highly influential factor in the participants' perception of IL. Women exhibited a significant tendency to consider IL necessary in all aspects, including the language of instruction provided by their professors and its future use with their students. When it comes to the participants' university degree, pre-primary education students were significantly less inclined to use IL to influence their professors compared to their counterparts. In the case of primary education students, the findings indicated that they were significantly less likely to use IL in the future when working as teachers.

Table 5 shows the results for the correlation between participants' perception of IL and the language of instruction. The findings included the level of significance resulting from the comparison of responses to the items depending on whether the subject was taught in English or Spanish, the contrasts of means using the non-parametric Wilcoxon–Mann–Whitney (WMW) test for paired samples, and the correlations between the paired variables using Spearman's rank correlation coefficient (rho).

Table 5
Parametric Test Results Regarding Item Responses by the Language of Instruction (English Vs. Spanish)

Item	Age	Academic year
1. Do you use IL to communicate orally in class or in writing with your professors?	0.3**	-10.593**
2. According to your view, what impression do students leave with their professors when they employ IL?	0.692**	-1.535
3. Has a professor ever made a comment, directed at you or your colleagues, about the use of IL?	0.023	-12.787**
4. Do your professors take into account the use of IL to communicate orally in class or in writing with their students?	0.413**	-8.818**
5. What is your impression if a professor does not use IL in writing?	0.838**	-1.029
6. What is your impression if a professor does not use IL to communicate orally?	0.842**	-2.263

** = Significance greater than 99% (0.01) after applying *Bonferroni correction*.

The results revealed that the language of instruction made a difference. There were significant differences in the participants' perception of IL for communication in class and their assessment of its use by their professors depending on the language of instruction. In all instances, the scores were notably higher when participants were taught in the participants' mother tongue (Spanish) compared to when they were taught in a foreign language (English).

Discussion and Conclusion

This study analysed the perceptions of 348 undergraduate students regarding the use of IL in the academic field. To address the first research objective, which is to describe the degree of IL usage and acceptance among pre-service teachers of pre-primary and primary education in Spain, the findings indicated a high degree of acceptance of IL within the study group, both in academic and non-academic settings. The results further suggested that a large majority of the surveyed trainee teachers intended to utilise IL when they become teachers. The participants also expressed their commitment to promoting the use of non-sexist language in the classroom, guiding their future students in its implementation.

These findings did not align with prior research in the field, where pre-service teachers did not exhibit such a high level of acceptance toward the practice of IL (Cutler et al., 2022; Tangen & Beutel, 2017). It is important to note that 82% of the sample comprised female participants. If the authors had analysed the perceptions of a more proportionate quota sampling of males and females, the high levels of acceptance regarding IL might have been different. This assumption is based on the results obtained by Pesce and Etchezahar (2019). In their study, women were found to be more inclined to employ the IL as they held a more positive attitude toward it compared to their male counterparts. The high number of females in this study might have resulted in the high level of IL acceptance.

Another factor that needs consideration is the fact that nearly half of the research sample reported using IL to please their professors and/or to achieve better academic results. This finding indicated a possible lack of awareness on the part of participants regarding the necessity of employing IL in the academic field. It appears that their use was driven by personal interests rather than a deep commitment to addressing social inequalities through language.

Regarding the correlations of the distinct variables measured using Spearman's rank correlation coefficient, neither the age of participants nor the academic year had a significant impact on pre-service teachers' perception of IL. However, the gender factor did influence their perception of non-sexist language. The results suggested that female students found IL more relevant than their male counterparts in various aspects of life. These findings aligned with the fundamental nature of IL, i.e., reducing discrimination against traditionally marginalised groups, such as women (Papadopoulos, 2022; Parra & Serafini, 2021). As mentioned, IL seeks to neutralise terms referring to individuals and eliminate gender bias from language for the sake of promoting gender diversity (Slemp, 2021; Taheri, 2020). Women, being historically excluded, clearly benefit from IL, as they have often faced personal discrimination (Billy et al., 2022). It is not surprising, therefore, that female participants in this research perceived it as more necessary to avoid gender bias in the academic setting compared to males. This finding is consistent with previous studies in the field, which have reported that female university students tend to have a greater awareness of the importance of IL compared to their male peers (García-Holgado et al., 2021; Parks & Roberton, 2005; Royo et al., 2021).

In addition to gender, the university degree was another significant variable in shaping pre-service teachers' perception of sexist language, a factor not previously reported by researchers. Participants pursuing a pre-primary education degree were less likely to use IL to please their professors than others, and students studying primary education were less inclined to incorporate IL into their instructional language when working as teachers. These findings suggested that pre-primary education students were more convinced of the need to use IL in the academic field, whereas the rest instrumentalised IL for their own benefit. In contrast, primary education students admitted that they resorted to IL to please their professors to a greater extent than others but were less willing to continue the practice in the future. There was internal consistency of the participants' responses to the questionnaire items as they likely assumed that being a student inherently involves the evaluation of academic progress, while working as a teacher does not entail such constant supervision.

In relation to the second research objective, which is to determine the impact of the language of instruction on pre-service teachers' beliefs about IL, the results indicated that IL was not as extensively used in subjects taught in English as it was in the students' mother tongue. Proficiency in the language likely influenced their use of gender-neutral language, as using non-gendered forms in English requires a high level of language proficiency (Kalajdžisalihović, 2021). Another factor that might influence students' use of IL is having their professors as role models. According to the participants, most professors used non-sexist forms in Spanish as their usage was more prevalent than in English. Demonstrating ways to convey neutral referents undoubtedly contributed to expanding the students' language skills. The ongoing polarised debate regarding the use of IL in the Spanish media likely served as another source of role model for students.

The research findings contribute to a better understanding of IL in the academic field from the perspective of pre-service teachers. It highlighted the fact that pre-service teachers mostly favoured the daily practice of IL. However, the study participants seemed to be driven by a goal-oriented incentive, namely, achieving better academic results, rather than by the desire to use language to change social reality. The limitation of the sample's lack of proportionality, that is, the low number of male participants, hindered the authors from drawing more robust conclusions about the perception of IL among trainee teachers in academic settings. While male underrepresentation is common in degrees related to arts and humanities (Ministerio de Universidades, 2023), it is essential to conduct a prospective analysis of the true significance of IL for male pre-service teachers.

Additionally, further exploration of the correlation between *university degree* and students' views on IL, especially the differences in perspectives between pre-primary and primary education students, is warranted. Although language is said to reflect reality, it has not yet been scientifically proven whether IL can change reality, as proponents of the Linguistic Relativity Hypothesis claim. Thus, another potential research avenue could involve investigating whether IL helps in preventing gender stereotypes among the university population.

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IMPACT OF TASK-BASED LANGUAGE TEACHING (TBLT) ON ENGLISH SPOKEN PRODUCTION AND INTERACTION AMONG MALAYSIAN PRE-UNIVERSITY STUDENTS

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ABSTRACT

This study aims to explore the impact of Task-Based Language Teaching on English-spoken production and interaction among English as a Second Language pre-university students in Malaysia. The quasi-experimental research design involved 63 pre-university ESL students and two ESL teachers from the Centre of Foundation Studies in Management at Universiti Utara Malaysia (UUM), Sintok, Kedah. Pre- and post-tests were conducted before and after the Task-Based Language Teaching intervention respectively. Data were also collected using semi-structured interviews, and online questionnaires. Data analysis procedures included a paired sample test, text analysis, thematic analysis and descriptive analysis. The results from the paired sample test revealed no statistically significant difference between the experimental and control groups. However, the experimental group indicated considerable development in spoken production and interaction in terms of fluency through reduction of fillers and improved speech quality. The thematic and descriptive analysis found that TBLT encouraged the students to enhance their spoken abilities. The findings suggest that although TBLT has the potential to foster greater fluency and deepen students' engagement in language tasks.

Keywords: English as a Second Language; Task-Based Language Teaching; spoken production; spoken interaction

Introduction

Teaching styles are defined by Kaplan and Kies as the "teacher's personal conduct and the media utilised to transmit information or receive information from the learner" (1995, p. 29). Other terms for teaching approaches include "initiating and responding behaviour" (Flanders, 1970) and "progressivism and traditionalism" (Kerlinger & Pedhazur, 1968). These definitions highlight the ways in which teachers interact with learners and the various teaching approaches used by teachers.

Researchers and educators have explored different teaching approaches to assist learners in acquiring new languages (Ali et al., 2023). Subsequently, Task-based Language Teaching (TBLT) has gained attention as one of the potentially effective teaching methods to enhance learners' language abilities by highlighting tasks that are personally relevant and communicative (Chong & Reinders, 2020). TBLT emerged in the 1980s and is mostly used for teaching English in Asian countries such as Japan, Korea, China, Vietnam, Thailand, Bangladesh, and Malaysia (Lam et al., 2021). This method is perceived as effective for all levels of learners, from beginners to experienced learners (Long, 2017). The implementation of TBLT allows language learners to use the target language for communicative purposes interactively, thereby facilitating the attainment of language learning objectives (Willis, 1996).

Past studies on TBLT in the Malaysian context have discovered the impact of TBLT on different variables and settings, such as criteria of language skills, teachers' perceptions, and teaching materials. For instance, Ahmed and Bidin (2016) discovered that TBLT improved writing and speaking skills in terms of complexity, fluency, and accuracy in the experimental group. Moreover, Musazay (2018) revealed that teachers comprehend TBLT and concur with its benefits, although they are uncertain concerning its classroom benefits, while Naru et al. (2014) proposed that the lesson plan may need to be adjusted to accommodate the target learners, notably in content and task options.

Thus, the current study aimed to examine the suitability and effectiveness of TBLT on English as a Second Language (ESL) learners' spoken production and interaction, with a focus on content, language accuracy, and communicative ability among pre-university students, particularly in the Malaysian context. This study intends to address three research questions:

(1) How does TBLT affect the ESL learners' spoken production and spoken interaction?
(2) What are the ESL teachers' perceptions about implementing TBLT in the ESL classroom?
(3) What are the ESL learners' perceptions regarding the implementation of TBLT in the ESL classroom?

Literature Review

English Language Teaching (ELT) in Malaysia

In Malaysia, traditional language teaching has shifted to a more interactive approach, specifically the Communicative Language Teaching (CLT) method, since the implementation of the new curriculum in 2009. The primary objective of this shift was to produce competent and marketable individuals to face global competition (Malaysian of Higher Education [MOHE], 2011). CLT was fully implemented in Malaysian English classrooms in 2011 (Mustapha & Yahaya, 2013).

Subsequently, numerous studies have been conducted to investigate the efficacy of CLT in the context of the new English curriculum in Malaysia, with the aim of improving English language proficiency among ESL learners (Hassan & Gao, 2021). Mustapha and Yahaya (2013) argued that CLT is a teaching method that emphasises helping students enhance their communication abilities by using real language in relevant situations.

Nonetheless, CLT is criticised for its vague theoretical foundations (Littlewood, 2007) and practical challenges (Harmer, 2003) that may lead to the failure of CLT in ESL classrooms. However, despite several unfavourable comments about CLT, it is believed that this strategy has the potential to assist Malaysian tertiary students in improving their communicative English abilities, which are crucial for employability (Mustapha & Yahaya, 2013).

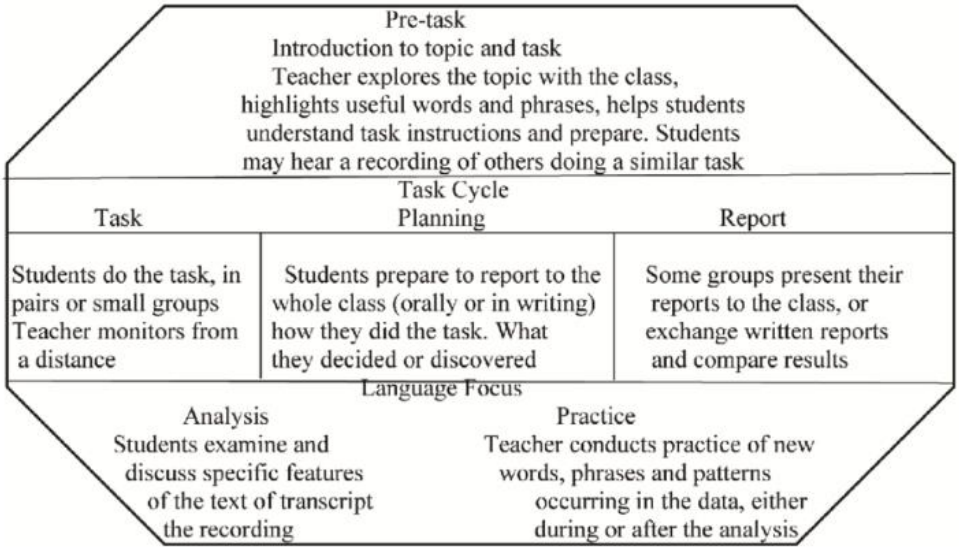
Richards (2005) identified two models of instructions in CLT, which are TBLT and Content- Based Language Teaching (CBLT). As it promotes real-language function, TBLT is an extensively used term in second language acquisition. Nevertheless, there has been limited research on TBLT in Malaysia regarding its implied strategy in ESL classrooms (Musazay, 2018).

Task-Based Language Teaching (TBLT)

TBLT focuses exclusively on students' needs and was inspired by the communicative approach (Kyriacou, 2018). Hence, the teacher's role in TBLT is to promote learning rather than serve as the primary information source as TBLT is learner centred. Merouani (2019) argued that one of the issues with Presentation-Practice-Production is that it predetermines the target language, prioritises correctness, and emphasises error avoidance. Consequently, this approach often results in stilted language performance and can lead to a sense of failure among learners (Willis, 1996). In a recent study by Baharun et al. (2023), it was observed that learners discussed, reasoned, justified, and perform decision-making together during the implementation of TBLT in EFL classroom, thereby promoting positive impacts on the learners' language enhancement.

Due to its perceived effectiveness, scholars and methodologists have recommended the TBLT framework as an approach to assign tasks and execute components inside the tasks (Hung, 2012). The most widely used TBLT framework in English language teaching studies, particularly in CLT, is Willis (1996). The stages of TBLT in this framework are illustrated in Figure 1.

Figure 1
Stages of TBLT (Willis, 1996, as cited in Mukrib, 2020)



TBLT in Spoken Production

Spoken production involves an individual generating an oral text for one or more participants (The Council of Europe, 2018). Levelt (1989) describes the three major processes involved in speech production: conceptualisation (deciding what to express), formulation (determining how to express), and articulation (expressing it) (as cited in Griffin & Ferreira, 2006).

The Council of Europe (2018) describes spoken production as a “long turn” that may contain speech such as a short description or anecdote and may imply an extended, more formal presentation. In addition, The Council of Europe (2018) exemplifies spoken production activities such as public address (delivering information, instructions) and addressing audiences (speeches at public meetings, university lectures). Several studies on spoken production explored ways to teach spoken production in a global setting (Phukan et al., 2021), spoken language production using web-based experiments (He et al., 2021), and comparing spoken production and written language (Zhang, 2013). Richards (2015) and Swain (2000) argue that effective English instruction in ESL classrooms should reflect real-life situations, uncover students’ individualities, and overcome limitations inside the classroom to promote language production.

Thus, the TBLT approach may enhance English teaching in this age of holistic student development (Lu et al., 2023). Sabarudin (2022), Panduwangi (2021), Masuram, and Sripada (2020) asserted that TBLT improves the fluency, accuracy, and confidence of English-speaking abilities. Ganta's (2015) assertion that TBLT boosts students’ confidence in speaking English in a secure learning environment (McDonough & Chaikitmongkol, 2007) is evidence in support of this.

TBLT in Spoken Interaction

Spoken interaction is the ability of an individual to articulate and use language for a specific purpose. It entails delivering information, engaging in negotiation, and employing turn-taking in discussions with one or multiple individuals (Febriyanti, 2011). Recent studies show that TBLT increases learners' enthusiasm, enhances learners' spoken interaction through various tasks (Tran, 2023), boosts oral English proficiency (Sang & Loi, 2023; Ulla & Perales, 2021), and improves teaching effectiveness in ESL classrooms (Lu et al., 2023; Nghia & Quang, 2021). These studies suggest that TBLT has the potential to enhance the speaking abilities of English language learners, thereby promoting language acquisition and holistic learner development.

Traditional teaching methods may neglect speaking abilities. Carrero (2016) found that instructors typically employed conventional teaching methods that prioritised grammar instruction, reading comprehension, and writing proficiency while ignoring the development of speaking abilities. Jones and Hodson (2012) also noted that less attention has been given to the explicit teaching of speaking and listening. As a result, TBLT has been explored as a promising, transformative pedagogical tool that may improve learners' speaking competency and align with the broader goals of the current study by improving language proficiency and communication skills in various educational and real-life settings.

Methodology

Research Design

The study employed quasi-experimental research design and incorporated both quantitative and qualitative data analysis to determine the impacts of TBLT on English spoken production and spoken interaction among ESL pre-university students. Figure 2 illustrates the research methodology design for the current study.

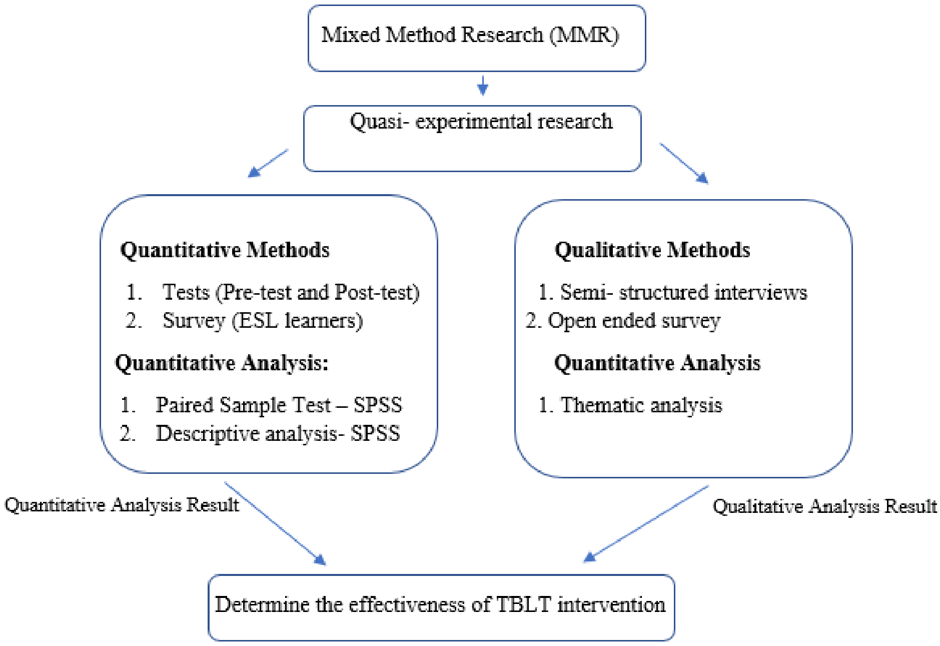
Participants

The study involved 63 pre-university students aged 17-18 who had completed their secondary education and two ESL teachers (one teacher was assigned to teach the experimental group using provided TBLT lesson plans, and another teacher taught the control group) from the Universiti Utara Malaysia Foundation Studies in Management. This study was conducted according to the guidelines approved by the management of the Universiti Utara Malaysia Foundation Studies in Management Programme on 30 January 2023, with consent from the Director of the Foundation Centre.

A total of 32 students were assigned to participate in the experimental group and received TBLT teaching intervention. The remaining 31 students were assigned to participate in the control group and did not receive TBLT intervention. The participants were recruited using convenient sampling. Before conducting the study, the researcher explained the objectives of the study and obtained consent from all participants. They were asked to sign a consent form and allowed to withdraw at any stage of the study. All participants were informed that their responses were kept confidential for research purposes.

Figure 2

Research Methodology Design



Research Instruments

The research instruments that were used to collect the study's data are as follows: 1) pre-test and post-test for speaking performance, 2) TBLT teaching intervention, and 3) online semi-structured interviews for ESL instructor (Table 1).

Table 1

Details on Research Questions, Research Instruments, and Data Analysis Method

Research Questions	Research Instruments	Data Analysis Method
1) How does TBLT affect ESL learners' spoken production and spoken interaction?	Speaking test (Pre-test and Post-test)	Quantitative: Paired Samples Test Qualitative: Text Analysis
2) What are ESL teachers' perceptions about implementing TBLT in the ESL classroom?	Online semi-structured interview for ESL teacher	Thematic Analysis

3) What are ESL learners' perceptions about implementing TBLT in the ESL classroom?	Online questionnaire	Descriptive Analysis

Data Analysis Procedures

For research question one, two methods were used to analyse the data from the pre-test and post-test: 1) Paired samples test to analyse quantitative data; 2) Text analysis to analyse qualitative data. Firstly, participants performed speaking pre-tests before the implementation of TBLT intervention, followed by post-tests after the completion of the intervention to measure their spoken production and interaction skills. The Malaysian University English Test (MUET) speaking format was adopted. Part 1 tested spoken production, while Part 2 tested spoken interaction. Participants were divided into a maximum of four students per group and given two minutes to express their views individually (Part 1) and 10-12 minutes for group discussion (Part 2). Their responses were graded using rubrics adapted from a MUET preparatory course offered at Universiti Utara Malaysia. Both spoken production and interaction were graded on content, language accuracy, and communication. SPSS version 27.0.1 was used to evaluate pre-test and post-test raw data for statistical analysis.

Secondly, the transcriptions from the test were retrieved from the Webex Conference Tool and analysed using text analysis. The analysis of the transcribed speech compared the word occurrences of fillers in the pre-test and post-test, following Robinson (2017) who suggested that word frequency can be used to measure the significance of a word. For this study, reduced occurrences of fillers would indicate an increase in learners' fluency.

Thematic analysis by Braun and Clarke (2013) was utilised to answer research question two. The analysis involves identifying, analysing, and reporting patterns within qualitative data. The data was retrieved from a semi-structured interview that was conducted with an ESL teacher to gather perspective on implementing TBLT in the ESL classroom. The session was conducted virtually using the Webex Conference Tool. The questions for the semi-structured interview were adapted from Pathak and Intratat (2012) and Hung (2012). Thus, the analysis for the current study began with familiarisation, followed by generating initial codes. These codes were then organised into potential themes, refined through iterative reviewing, and defined. The themes, representing key aspects of the ESL teacher's perspectives on TBLT implementation were utilised in analysing the data.

For research question three, an online questionnaire was administered to explore the students' perceptions regarding implementing TBLT in the ESL classroom. The questions for the questionnaire were adapted from Chen and Wang (2019) and Bosha (2019). The questions were categorised into three parts: general questions about English language learning (Part 1), TBLT implementation in the ESL classroom (Part 2), and challenges of TBLT in the ESL classroom (Part 3). Google Form application was used to collect the participants' responses. The raw data were then analysed using descriptive analysis to identify the mean and standard deviation for every item of the closed-ended questionnaire. Out of a total of 31 students from the experimental group who participated in this study, only 20 returned the questionnaire.

Results and Discussion

The speaking tests (Part 1 and Part 2) were administered in the pre-test and post-test to assess the learners' speaking performance after the treatment period. The results are shown in Table 2.

Pre- and Post-Test Scores for Spoken Production and Spoken Interaction

Table 2 shows the results of the paired sample test for spoken production, spoken interaction, and overall speaking performance. The analysis of spoken production scores revealed no statistically significant difference between the control and experimental groups ($p = 0.795$). The experimental group's scores on the pre-test and post-test ($M = -1.452$, $SD = 2.002$) were compared to the pre-test and post-test scores of the control group ($M = -0.094$, $SD = 2.953$), revealing a statistically significant difference ($t = -2.737$). This finding indicated that the group undergoing the experiment had significantly lower mean scores in the speaking production test.

Secondly, the analysis of the spoken interaction scores revealed no statistically significant difference between the control and experimental groups ($p = 0.451$). The experimental group's scores on the pre-test and post-test ($M = 1.161$, $SD = 0.412$, $t = 2.816$) were compared to the pre-test and post-test scores of the control group ($M = -0.219$, $SD = 0.287$, $t = 0.763$).

The results contrasted with the findings reported in previous studies by Sabarudin (2022) and Panduwangi (2021), conceivably due to two factors. Firstly, random assignment for students from both the control and experimental groups was not conducted. It was discovered that many learners from the control group performed exceedingly better than the learners from the experimental group, indicating that the learners from the control group had better English than the experimental group even before the intervention started. The second primary factor was the insufficient intervention duration of only five weeks. The Global Scale of English (GSE) (n.d.) recommends that both young and adult learners invest approximately 760 hours of learning to attain a higher level of proficiency, such as from A1 to B2 based on The Common European Framework of References (CEFR) scale.

Despite the insignificant results from the pre-test and post-test scores, the participants from the experimental group displayed improvement in terms of the quality of speech, as shown by the results of the text analysis for spoken production and interaction.

Table 2

Paired Sample Test of Spoken Production and Spoken Interaction for Experimental and Control Groups

Paired Samples Test (Speaking Production, Interaction and Overall)									
		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Control	Spoken	-0.094	2.022	0.357	-0.823	0.635	-0.262	31	0.795
Experimental	Production	-1.452	2.953	0.53	-2.535	-0.368	-2.737	30	0.071
Control	Spoken	0.219	1.621	0.287	-0.366	0.803	0.763	31	0.451
Experimental	Interaction	1.161	2.296	0.412	-2.004	2.816	2.816	30	0.009
Control	Overall	0.063	1.754	0.31	-0.57	0.695	0.202	31	0.842
Experimental	Speaking Test	-1.294	2.515	0.452	-2.126	-0.371	-.2864	30	0.008

Text Analysis for Spoken Production and Spoken Interaction

Table 3 displays a sample of transcriptions from the speaking pre-test and post-test from two different participants.

Table 3
Sample of Transcriptions from Speaking Test

Participant	Transcription of Pre-test	Transcription of Post-test
S28E	**Uh**, Hello **uh,** good evening, Madam and to my friends also. So, basically, **uh,** the, **uh**, things, **uh,** activities that, **uh,** I think that that will bring us to. **Uh,** one call**, uh, uh**. Good reading is, **uh**. We can play some kind of activities, **uh**, during. **Uh, uh**, what what we call. **Uh,** yeah, yeah, we can do some kind of activities like. **Uh**, **uh,** games. **Uh**, every day. And so on, **uh,** and also, I think, **uh,** when we talk about, **uh,** family. **Uh,** the activities that. Can bring, **uh,** our family. Um, **uh,** bonding is, **uh,** religion, so. When it comes to religion, we can. **Uh, uh**, if, **uh**, our using, so. Basically, **uh**, when it, **uh.** *(Frequency of fillers: 29)*	Okay, **uh**, next I will talk about, **uh,** activities that will bring us closest closest to, **uh,** to me. So, how can we apply, **uh**, to. **Uh,** I think our one in between our family members, so. We can, **uh**, do some, **uh**. Activities that, **uh**, we call family game night. So, there are several activities that we can do, such as, **uh**. **Uh**, play pinball game, so next, **uh**. Outdoor activities, or still can be due such as hiking and. Okay, **uh,** where can we do this kind of activity? So we can choose some various allocation like, **uh**. Why this is important to, **uh,** happiness among community members so that we can, **uh.** *(Frequency of fillers: 15)*
S29E	**Uh,** to make them not yet. So today I, I will talk about activities. They are fine to do. So, I found out that when I bought, I will watch some YouTube videos such as a. Quick videos, and we didn't **uh** like block. So I find out that when I watch video, I. More exposure about other countries' culture and. **Uh**, exceptions, so I will find out that. **Uh**, it made me feel, **uh**, around the world. **Uh**, so, **uh,** and other activities I will do, **uh,** when I'm. Feel free is important because, **uh.** I feel that it is some kind of the space that I will.	So, today, I will talk about activities that are fun to do, so I will divide this activity. Into 2 section, which is indoor activities and outdoor activities. So, for the indoor activities that, **uh,** I found that it's fun to do is, like, watching YouTube. Especially travel, not because I live to watch people go table because you show me at the conscious culture. And attraction, **uh,** they have in our country. So,

Participant	Transcription of Pre-test	Transcription of Post-test
	(*Frequency of fillers: 9)*	next, **uh,** sometimes I will also watch as everyone knows and, **uh,** this man is to remind them what to move on is so fascinating. *(Frequency of fillers: 4)*

The frequent appearance of linguistic fillers such as "uh" and "um" suggests moments of hesitation and lack of fluency. Table 3 shows that participant 28E produced the filler "uh" 29 times during the pre-test, indicating a considerable use of this discourse marker. Nevertheless, the frequency of filler "uh" decreased to 15 during the post-test. An improvement in fluency has been observed, indicating a higher level of confidence in oral communication. Participant 29E produced nine fillers during the pre-test and four during the post-test, demonstrating a decrease in filler usage and potentially a higher level of fluency and confidence.

In general, both participants showed noticeable reduction in fillers from the pre-test to the post-test. The findings indicated that the use of fillers was reduced in both instances which may be attributed to increased practice and familiarity with the subject matter. Based on the text analysis, the speech quality of the experimental group improved, although they initially performed lower than the control group, as indicated by the paired sample test. This finding is similar to previous findings by Musaram and Sripada (2020), Ganta (2015), and McDonough and Chaikitmongkol (2007), demonstrating that TBLT positively impacts speech quality, especially by enhancing participants' fluency and confidence through the reduction of fillers.

Thematic Analysis of Semi-Structured Interview with ESL Teacher

Thematic analysis by Braun and Clarke (2013) was used in identifying, analysing, and interpreting themes and patterns of the interview with the ESL teacher. The following excerpts in Table 4 illustrate the three themes.

Table 4

Sample of Transcriptions from a Semi-Structured Interview with an ESL Teacher from the Experimental Group

Excerpt			Transcriptions
Excerpt 2	Question Teacher	: :	What is it that you wish the learners could achieve for this course? Okay, basically, this course is for my students to prepare for MUET. Because this course was tailored to cater all four skills in a way they need to master these skills. ***(Theme I: Teaching strategies)***
Excerpt 3	Question	:	All right, before the implementation of TBLT, what strategies do you use to ensure the students communicate effectively in the classroom because

Excerpt			Transcriptions
			just now mentioned that you would use student-centred approach.
	Teacher	:	…students and that, right so you have other approach that you use, like to ensure that they communicate effectively. Yeah, I don't specifically have a specific method to encourage my students to speak, but what I would do in class, uh, I would pick my students randomly out of the crowd and ask them, for example, when we when we start our class, uh, I would just pick, one or two random students, for them to summarise the activities we had last week. ***(Theme I: Teaching strategies)***
Excerpt 4	Question	:	Okay, so my first question related to the section is, do you know what task-based language teaching is, and can you define based on your understanding?
	Teacher	:	Based on my understanding based on the word or task-based learning, I can see that students are given the opportunity to do, or to complete a task and because of that, they are able to demonstrate what they have at the same time. They will be able to learn something out of the materials that the teachers usually give them. …Yeah, I could see that my students, they really enjoyed themselves and they really use the opportunity to express themselves a lot more. ***(Theme II: TBLT Implementation)***
Excerpt 5	Question	:	So, do you think that the tasks were sufficient?
	Teacher	:	Yeah, for the five weeks, I think yeah, the materials provided were sufficient. The tasks were created to fill in the two-hour class. ***(Theme II: TBLT Implementation)***
Excerpt 6	Question	:	Okay, my next question is, what were the challenges you faced in teaching both listening and speaking skills, especially for English for Conversation, maybe in terms of the time or the class size?
	Teacher	:	The size of the classroom I think because of the class, we have 28 people in this class. I struggled. And I had to choose my students randomly one or two. And I think the size of the class places an important role. Ideally, the number of students should be within the range of 20 students if more, it's going to be a burden for me to execute the class. ***(Theme III: Challenges of TBLT)***

Theme 1 is about the common teaching practices used by ESL teachers when teaching English to pre-university learners before implementing TBLT. The teacher stated that he did not employ a specific method to encourage students to speak (Excerpt 3); instead, he would cold-call one or two students to speak, possibly due to the large class size and time constraints (Excerpt 6). Czekanski and Wolf (2013), noted that conventional teaching methods often lead to cold-calling in large classes.

Theme 2 of the interview highlights the teacher's experience with TBLT implementation in the ESL classroom. The teacher reported that the TBLT intervention engaged students by providing them with the opportunity to perform language tasks and learn from them (Excerpt 4). Studies by Baharun et al. (2023) and Sang and Loi (2023) corroborate these findings, demonstrating that TBLT fosters students' engagement and boosts oral proficiency when they are given the opportunity to execute the language tasks.

Theme 3 of the interview focuses on the teacher's perception of the challenges encountered when implementing TBLT in the ESL classroom. The teacher said that the two-hour lesson materials and exercises were sufficient. Nevertheless, due to the enormous class size, he struggled to observe learners' development. Naru et al. (2014) stated that lesson plans should be tailored to the target learners, particularly when dealing with a large class. The teacher recommended 20 students for TBLT, which would be ideal for an ESL classroom. Larger numbers would pose a burden on the teacher (Excerpt 6). This result aligned Masazay (2018) who found that while teachers accept TBLT, they were uncertain of its classroom benefits due to the challenges they encountered.

Descriptive Analysis of Learners' Perceptions of TBLT Implementation

This section focuses on the questionnaire results and the descriptive analysis of the learners' responses. Table 5 shows the Cronbach's alpha value for the reliability and validity of the questionnaire across the themes. Raharjanti et al. (2022) stated that Cronbach's alpha value of more than 0.6 is acceptable, and modified item-total correlations greater than 0.3 indicates reliability. The results revealed a generally high degree of consistency.

Table 5
Cronbach's Alpha Value for ESL Online Questionnaire

Themes	Cronbach's Alpha Value	Items
Part 1: General	0.764	11
Part 2: Implementation	0.888	11
Part 3: Challenges	0.668	5
Overall	0.847	27

Table 6 consists of a range of values and their respective interpretations which provide qualitative understanding of participants' opinions. Participant responses in each class interval can be categorised based on their level of agreement or disagreement, ranging from "Strongly Agree" (value 4.21 -5.10) as the highest level of agreement to "Strongly Disagree" (value 1.00-1.8) as the lowest level of disagreement.

Table 6
Class Interval for Likert Scale Value and Interpretation

Value	Interpretation
1.00 -1.8	Strongly Disagree
1.81- 2.6	Disagree
2.61 -3.4	Neutral
3.41-4.2	Agree
4.21 – 5.0	Strongly Agree

As shown in Table 7, participants strongly agreed that conversing in English, particularly in the educational setting, is essential and can boost overall proficiency and self-assurance. The participants held contrasting opinions concerning pronunciation difficulties. Most participants felt comfortable speaking English with their teachers and peers.

Table 7
Part 1: General Questions about English Language Learning (N=20)

	Mean	SD	Interpretation
1. I think that communicating using English in the classroom is important.	4.35	.366	Strongly Agree
2. Communicating using English in the classroom does help me use the English language effectively.	4.85	.366	Strongly Agree
3. Communicating using English in the classroom can improve my overall English proficiency.	4.80	.410	Strongly Agree
4. Communicating using English in the classroom boosts my confidence.	4.75	.444	Strongly Agree
5. I have difficulties pronouncing English words.	3.30	1.174	Neutral
6. I feel confident to communicate using English with the teacher.	3.80	.951	Agree
7. I feel more confident communicating using English in the classroom with my friends.	3.85	1.040	Agree

Table 8 shows the ESL learners' perceptions regarding implementing TBLT in their classrooms. The analysis showed that the TBLT implementation in the English classroom was well received by the participants. This finding corroborates the findings by Ahmed and Bidin (2016). In their study, most students agreed that TBLT was effective and indicated that they enjoyed TBLT.

Table 8
Part 2: Implementation of TBLT in ESL Classroom

Item	Mean	SD	Interpretation
12. In order to complete each task, I had to find relevant information on the Internet.	4.35	.745	Strongly Agree
13. I completed all tasks because I was curious about various topics and tasks assigned by the teacher.	4.15	.7.45	Agree
14. By completing various tasks, I discovered my strengths and weaknesses.	4.55	.510	Strongly Agree
15. Some tasks reflected real-life settings, and I would be able to use the English language spontaneously.	4.65	.489	Strongly Agree
16. Our team completed the tasks within the assigned time duration.	4.65	.489	Strongly Agree
17. My team members encouraged me to volunteer and contribute to the discussion to complete the task assigned by the teachers.	4.55	.605	Strongly Agree
18. Teachers developed an appropriate orientation for the students related to performance.	4.55	.605	Strongly Agree
19. I believe that Task-based instruction motivates us to learn English more, particularly speaking and listening skills.	4.45	.571	Strongly Agree
20. Teachers explained to us exactly what we needed to do the task to learn to speak and listen by using Task-Based Language Teaching (TBLT).	4.60	.598	Strongly Agree
21. The teacher encouraged us to take our responsibilities and role to practice based on the given speaking and listening tasks.	4.70	.503	Strongly Agree
22. Teachers provided opportunities for us by giving options and allowing us to do an evaluation of our own performance.	4.70	.503	Strongly Agree

The analysis in Table 9 revealed that time allocation, class size and students' English proficiency were not significant barriers for the students in completing the tasks during the lesson. These findings corroborate with Nghia and Quang (2021) who also found TBLT can effectively addresses classroom challenges, such as insufficient class time and large class size. Furthermore, finding on mixed perceptions about team members' language abilities implies that the variability in language skills within a team can potentially impact the effectiveness of communication and collaboration during task-based learning activities. This finding is consistent with Ulla and Perales (2021), who noted that students' enhanced performance in group settings can be attributed to their peers' abilities and language proficiency.

Table 9
Part 3: Challenges of TBLT

Item	Mean	SD	Interpretation
23. The time allocated to complete the tasks was limited and short.	3.20	.834	Disagree
24. It was very challenging to execute the tasks given due to my lack of English proficiency.	2.95	.945	Strongly Disagree
25. The size of my class was appropriate and convenient for me to follow the lesson and execute the tasks with my team members.	3.95	1.050	Agree
26. My team members/pair have limited target language proficiencies.	3.05	1.146	Neutral
27. I have little knowledge of task-based instruction.	3.00	1.076	Neutral

Conclusion

The study showed that TBLT has a positive impact on ESL pre-university students' English spoken production and interaction among. Even though the quantitative findings were not statistically significant, the experimental group showed considerable developments in spoken production and interaction in terms of fluency through reduction of fillers. The ESL teacher in the study noted an increase in students' engagement despite some challenges encountered during the implementation of TBLT. The study indicated that TBLT was well received by the learners. Thus, the findings from this study highlight the potential to use TBLT in ESL classes to enhance and boost learners' spoken abilities.

Nevertheless, several constraints in this study, such as the limited duration of the intervention and limited range of assessed variables such as spoken language performance and ESL learners and teachers' perceptions. Further studies to explore TBLT adaptations for diverse learner populations and its long-term impact on language proficiency should be considered.

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INVISIBLE WOUND: DEPRESSION CONCEPTUAL METAPHORS IN THAI PATIENTS' FACEBOOK POSTS

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ABSTRACT

Depressed individuals often use metaphorical expressions to convey their experiences to others. However, research on the conceptual metaphors of depression in the Thai context has been limited. This study aimed to investigate conceptual metaphors for DEPRESSION. In Facebook posts by depressed Thai patients and explore to identify the most salient conceptual metaphors among them. the study followed the Metaphor Identification Procedure Vrije Universiteit (MIPVU) developed by Steen et al. (2010) and incorporated salience-based metaphor analysis (Kövecses et al., 2015). A total of 659 posts, published in 2023 (comprising a corpus of 56,942 words) were collected from a Thai Facebook group dedicated to mental illnesses. The findings revealed ten conceptual metaphors reflecting the metaphorical conceptualisation of depression. Three of these were found to be the most salient: DEPRESSION IS AN OPPONENT, DEPRESSION IS A JOURNEY, AND DEPRESSION IS A WOUND. These metaphors illustrate Thai patients' perceptions of depression as a struggle, a personal journey, and a psychological wound. This study provides insights into how depressed Thai patients conceptualise depression, contributing to a better understanding of depression in Thai mental healthcare communication.

Keywords: conceptual metaphor; depression; Facebook posts; metaphorical salience; Thai context

Introduction

Depression is a common mental illness affecting many people globally. Depressed individuals suffer greatly from this condition and are unable to perform their daily activities properly (Gilbert, 2007; World Health Organisation [WHO], 2021). WHO (2024, para. 2) highlights depression as "a major contributor to the overall global burden of disease," with nearly 300 million sufferers. Depression is also one of the most common mental disorders in Thailand. The number of patients diagnosed with depression is as high as approximately 1.4 million (Thai Depression, 2022). However, misunderstanding of depression in Thai society is still prevalent. Many people think that patients with depression are insane (BBC Thai, 2019) while others believe that sufferers are weak, or that they overthink, exaggerate their condition, or use their condition in order to attract attention (Angkapanichkit et al., 2019). Such perceptions of depression can worsen patients' conditions.

Metaphor studies regarding experiences of both physical and mental illnesses have become of much interest worldwide, reflecting an increasing desire to understand complex experiences of illnesses in terms of simpler experiences (e.g., Semino et al., 2017, 2018). As DEPRESSION is an abstract concept that is difficult to explain, it has garnered the attention of some researchers in this cognitive linguistic field.

To gain insights into conceptual metaphors for DEPRESSION, Charteris-Black (2012) identified four main concepts in his corpus: DESCENT, CONTAINMENT AND CONSTRAINT, WEIGHT AND PRESSURE, and DARKNESS AND LIGHT. The author suggested that metaphorical expressions might be a powerful device for eliciting the feelings of those experiencing depression. Similarly, Angkapanichkit et al. (2019) revealed that using metaphors is another strategy used by depressed Thai patients to make themselves better understood during the interviews conducted for their research. Metaphorical expressions in patients' narratives included, for instance, "down" and "fail", clearly indicating the conceptual metaphor DEPRESSION IS DOWN· This type of usage is also compatible with the physical appearance of patients with depression, whose heads tended to droop during the interview sessions.

However, Fullagar and O'Brien (2012) discovered some other conceptual metaphors for DEPRESSION during their interviews: IMMOBILITY, BATTLE, and JOURNEY. These scholars suggested that their findings might help mental health clinicians to better understand patients' interpretations of their experiences through the use of metaphorical expressions. Similar findings can be found in the work of Coll-Florit et al. (2021), who conducted research by compiling a corpus of blog posts narrated directly by patients with depression. The most prominent source domains included WAR, JOURNEY, LIVING ORGANISM, and CONTAINER. The researchers remarked that expressing feelings through blogging might empower patients in terms of enhancing their overall mental well-being.

Previous studies (e.g., Charteris-Black, 2012; Coll-Florit et al., 2021; Semino et al., 2017) employed the Metaphor Identification Procedure)MIP(developed by the Pragglejaz Group (2007) as a framework for metaphor analysis. Nevertheless, this current study differs from earlier research in its adoption of MIPVU, which is an extension of MIP developed by VU University Amsterdam (Steen et al., 2010), a refined version of MIP that aims to enhance the reliability and validity of metaphor identification.

Moreover, salience-based metaphor analysis (Kövecses et al., 2015) was also applied in order to derive the most salient conceptual metaphors for DEPRESSION in the Thai context. In addition, while there has not been much research conducted on conceptual metaphors for depression in the Thai context, the figure of patients with diagnoses of depression is still high, according to earlier reports. Since little is known about the pain, conceptual metaphors for DEPRESSION might aid in understanding patients' thoughts and feelings, fostering empathy, and facilitating more effective communication in the Thai setting.

Therefore, this study aimed to 1) investigate conceptual metaphors for DEPRESSION in depressed Thai patients' Facebook posts; and 2) investigate the most salient conceptual metaphors in Thai patients with depression.

Literature Review

Metaphors serve a variety of functions in all types of communication including mental health, such as expressing one's feelings, thus allowing insights into speakers' hidden emotions (Cameron, 2008; Colston, 2015; Demjén & Semino, 2017; Knowles & Moon, 2006; Low, 2008; Semino et al., 2018).

Conceptual Metaphor Theory

Conceptual metaphor theory (CMT) was initially mentioned in Lakoff and Johnson's (1980) pioneering work, *Metaphors We Live By*. The core of conceptual metaphors, as defined by Lakoff and Johnson (1980), involves understanding one concept in association with another. A conceptual metaphor basically consists of two "conceptual domains" of experience, in which one domain (typically abstract) is understood in terms of another domain that is more concrete (Kövecses, 2008, 2010, 2017; Lakoff & Johnson, 1980). These two domains are the "source domain" and the "target domain." The more abstract target domain is the domain that we try to understand through the more concrete source domain.

Three main types of conceptual metaphors were identified: orientational, ontological, and structural (Lakoff & Johnson, 1980). An orientational metaphor is a metaphor that involves physical space, such as "down". An ontological metaphor is a metaphor in which abstract concepts are understood in terms of physical concepts such as MIND IS A MACHINE. A structural metaphor is a metaphorical system in which one complex concept is presented in terms of a more concrete one such as DEPRESSION IS WAR. Metaphorical expressions and conceptual metaphors are closely related but operate at different levels of analysis within language and cognition. Metaphorical expressions are metaphorical linguistic expressions of underlying conceptual metaphors that structure our understanding of abstract concepts. For instance, DEPRESSION IS WAR structures our understanding of depression by mapping elements from the domain of warfare onto the domain of depression. Metaphorical expressions such as “fight,” “battle”, and “confront” are linguistic manifestations of DEPRESSION IS WAR.

Cognitive linguists Lakoff and Johnson (1980) emphasised that our conceptual system is grounded in bodily experiences. Our understanding of abstract concepts often arises from and is structured by our physical interactions with the world. Conceptual metaphors are thus not arbitrary but part of a systematic network of mappings between different domains of experience. Conceptual mappings between two different domains are therefore embodied, meaning they are grounded in our sensory motor (e.g., bodily movement) as well as in our cultural experiences. This means that our physical experiences shape the way we understand and use metaphorical expressions. Culture also plays a crucial role in the formation and understanding of conceptual metaphors within a particular community. Different cultures may emphasise different aspects of experience or use different metaphorical expressions to conceptualise the same phenomena, reflecting cultural variations in thought and language.

According to CMT, metaphorical expressions are not just linguistic expressions but cognitive structures that shape our understanding of the world. They highlight certain aspects of a concept while simultaneously hiding others. For example, in DEPRESSION IS A JOURNEY, the properties of a journey (e.g., moving on) are highlighted in our understanding of depression, whereas certain aspects, such as buying a ticket, are not compatible with depression and are therefore hidden. Mapping involves establishing systematic correspondences between elements of source domain and those of a target domain, based on non-preexisting similarities. To illustrate, elements of the source domain JOURNEY such as traveling, navigating paths, and overcoming obstacles, are systematically mapped onto those of the target domain DEPRESSION, allowing to understand DEPRESSION in terms of JOURNEY.

Major Depressive Disorder

Depression, or Major Depressive Disorder (MDD), is a common and serious mental illness that negatively affects many people worldwide. Most patients with depression typically experience the onset of a depressive episode shortly after a traumatic event involving loss, stress, humiliation, neglect, or extreme disappointment (Herrman et al., 2022). Common symptoms typically found in patients with depression are persistent sadness, insomnia or hypersomnia, withdrawal from usual activities, lack of energy, low self-worth, changes in appetite or weight, poor concentration, feelings of hopelessness, and thoughts of death, due to an inability to cope with the invisible pain of depression (National Institute of Mental Health [NIMH], 2021; Torres, 2020; WHO, 2021).

Methodology

Research Instruments

The MIPVU (Steen et al., 2010) was adopted in order to identify metaphorical expressions. Salience-based metaphor analysis (Kövecses et al., 2015) was subsequently used to obtain the most salient conceptual metaphors.

The MIPVU is a systematic method for metaphor identification. It is an extended version of the MIP developed by the Pragglejaz Group (2007). As in the case with the MIP, the procedure involves examining a text on a word-by-word basis to find metaphor-related words (Steen et al., 2010, pp. 25-26(. However, this procedure is claimed to be more exhaustive in that it includes other forms of metaphor, such as the simile, to cover a wider range of metaphorical forms.

Metaphor identification is mainly conducted by finding metaphor-related words (i.e., words used indirectly). For a word to be considered metaphorical, a contrast must exist between its contextual meaning and its more basic meaning. This means that these two meanings should be sufficiently distinct from each other while understood in comparison with one another. The contextual meaning of a word is known as "the meaning it has in the situation in which it is used" (Steen et al., 2010, p. 33) whereas its basic meaning involves "a more concrete, specific, and human-oriented sense in contemporary language use" (p. 35). For instance, in "that is the deepest wound in my heart", the contextual meaning of "wound" is the psychological wound created by depression, while the more basic meaning involves a damaged area of the body. As such, these meanings are considered sufficiently distinct in terms of their dictionary definitions (i.e., those found in standard, nationally distributed Thai dictionaries). Apart from words used metaphorically, similes were also considered in this study. This was done by simply looking for signal words such as "like."

Kövecses et al. (2015) proposed a new complex measure of metaphorical salience (i.e., salience-based metaphor analysis) to determine the cultural importance of conceptual metaphors, arguing that word frequency alone was not sufficient when identifying the most salient conceptual metaphors. Consequently, three factors were introduced for the calculation of aggregate values (p. 344) as follows:

1. "Mapping" refers to conceptual mappings belonging to a particular conceptual metaphor. This first factor requires the total number of mappings within a conceptual metaphor.
2. "Type" refers to different metaphorical expressions used to express a particular conceptual metaphor. Type analysis helps in understanding the variety of types.
3. "Token" refers to all occurrences of a type in the corpus. For a clearer illustration of type-token distinction, the type "heal", for example, appeared four times in the corpus. Then there were four tokens of "heal" whereas the type of frequency was still counted as one.

Finally, an aggregate value is derived by summing up percentages of the previous three factors to represent the metaphorical salience of each conceptual metaphor. The conceptual metaphor with the highest aggregate value is therefore the most salient.

Procedures

The online platform can foster a patient's sense of being able to express their emotions more freely than in face-to-face interactions (Demmen et al., 2015). Therefore, a self-compiled corpus was created to facilitate this study. Conforming to the research objectives, the data were purposively drawn from a Thai-based Facebook group, dedicated to mental illnesses because it consists exclusively of Thai diagnosed patients, and excludes family carers and members of the public while other groups do not.

Posts concerning depression directly produced by depressed patients were selected manually for inclusion in the corpus. The posts published in the target group were thoroughly examined based on their relevance to patients' lived experiences of depression such as complaints related to depression, comments about their emotions, conditions, and needs, and remarks concerning their medication. A total of 659 posts all written in Thai were compiled with permission from 82 writers in the target group, published from January to August 2023, resulting in a corpus of 56,942 words. Next, identification of metaphors was conducted, along with the formation of conceptual metaphors. Finally, the salience of each conceptual metaphor was calculated.

The study was conducted according to the guidelines of the research and publication ethics regulations approved by the Human Research Ethics Committee of Srinakharinwirot University (Protocol Code: SWUEC-662004 (Approval date: 25 July 2023)). The identities of participants were anonymised prior to the collection of data to help ensure that the findings reported in this study would not be able to be traced back to any individual post writers.

Data Analysis

After identifying WOUND-related metaphorical expressions (e.g., pain and heal), for example, in the first stage of analysis, conceptual mappings were formed based on similarities at the cognitive level between the properties of the source domains and those of the target domains. The previously identified metaphorical expressions systematically determined the numbers of mappings (i.e., four mappings for WOUND), depending on the variety of properties found between two different domains. These mappings contained metaphorical expressions that specified them. For instance, "pain" and "suffer" were categorised under the mapping PAIN FROM A WOUND→PAIN FROM DEPRESSION because of their shared properties.

Subsequently, the conceptual metaphor DEPRESSION IS A WOUND was then formulated from the identified metaphorical expressions and the formation of conceptual mappings in the previous steps. Besides the case of WOUND, these steps were followed throughout the analysis to derive other conceptual metaphors. Finally, the numbers of mappings, types, and tokens of each conceptual metaphor were calculated separately to derive percentages. Aggregate values were then computed to obtain the most salient conceptual metaphors.

Results

Conceptual Metaphors for DEPRESSION

In relation to the first research objective, the Thai corpus yielded 10 conceptual metaphors, illustrating the metaphorical conceptualisation of depression. Each conceptual metaphor was capitalised in order to represent concepts instead of metaphorical expressions. For each mapping, an arrow was inserted to link the source domain with the target domain. Finally, the numbers of tokens were attached to their types and displayed in parentheses.

DEPRESSION IS A WOUND

Depression was conceptualised as a physical wound, a damaged area of the body. Just like a person suffering from the pain of a physical wound, a depressed patient also suffers psychologically from depression, despite its invisibility. However, depression can also be healed through medication and mental support as well as by the passage of time, just like a physical wound. Depressed patients usually felt more relief from their depressive symptoms if their psychological wounds had disappeared. A sample sentence containing a metaphorical expression is: “I need encouragement to heal my mind,” suggesting similarities between HEALING A WOUND and HEALING DEPRESSION**.** The four mappings, along with 21 types, are as follows:

A PHYSICAL WOUND →DEPRESSION
i.e., wound (3), psychological wound (1), recur (8)

PAIN FROM A WOUND →PAIN FROM DEPRESSION
i.e., painful (1), pain (2), suffer (6), suffering (3), distressed (1), hurt (3), indignant (1), struggle (1), injured (1), endure (2), endure suffering (1)

HEALING A WOUND →HEALING DEPRESSION
i.e., heal (4), cure (3), get better (1), relieve (2), rest (2)

DISAPPEARANCE OF A WOUND→RELIEF FROM DEPRESSION
i.e., disappear (10), completely gone (2)

BEING DEPRESSED IS DESCENT

Being depressed was conceptualised as descent, an act of going down. For example, the statement “I can’t move on. I’m falling straight down” indicates descent in a straight direction. Patients usually felt down when experiencing depression because of the difficulty they experienced in getting up. However, references to the ability to pull oneself up pointed to patients' attempts to get away from being depressed. The five mappings with 15 types are:

FALLING INTO A HOLE→BEING DEPRESSED
i.e., down to the hole (2), fall into a hole (1), black hole (1)

FALLING STRAIGHT DOWN→BEING DEPRESSED
i.e., fall straight down (23)

SINKING→BEING DEPRESSED
i.e., sink (4)

FALLING DOWN TO A LOWER LEVEL→BEING DEPRESSED
i.e., fall down (1), bottom out (2), come down to (1), fall into hell (1), fall off (1), down (1), fall (6), down to hell (1)

PULLING ONESELF UP→TRYING TO GET AWAY FROM BEING DEPRESSED
i.e., pull up (1), get up (3)

DEPRESSION IS A VISITOR

The patient acted as a host offering a place for a visitor to stay. The patient became depressed whenever depression visited. Acceptance of depression as a visitor may thus enable patients to live with it more comfortably. In the statement "Depression has stayed with me so long," depression acts as a visitor living together with the patient. The two mappings with 11 types are:

A VISITOR→DEPRESSION
i.e., return (4), temporary (1), visit (1), meet (3)

ACCEPTING A VISITOR→LIVING WITH DEPRESSION
i.e., should adjust (1), live (1), admit (8), adjust the mind (1), stay with (4), live together (1), stay together (1)

DEPRESSION IS AN OPPONENT

Depression was conceptualised as an opponent with which the depressed patient fought over a certain period. Patients used various methods (e.g., medications) to fight depression. Controlling depression, just as controlling an opponent, was also necessary in order to prevent it from becoming too intense. Patients might win or lose the battle, depending on the many factors they faced. The statement "Let's fight it together" reflects a belief that depression can be fought as an opponent. The five mappings with 18 types are:

FIGHTING AN OPPONENT→DEALING WITH DEPRESSION i.e., battle (5), fight (31), grit teeth and fight (1), fight hard (1), confront (2), not give up (1), exert oneself (1)

A WAY TO FIGHT AN OPPONENT→A WAY TO DEAL WITH DEPRESSION
i.e., method (1), all the ways (1)

CONTROLLING AN OPPONENT→CONTROLLING DEPRESSION
i.e., take charge of (8), protect (1), inhibit (1)

A FIGHTER→A DEPRESSED PERSON
i.e., fighter (1)

BEING A LOSER→BEING DEFEATED BY DEPRESSION
i.e., routed (1), surrender (5), lose (1), weak (3), weakness (1)

DEPRESSION IS A JOURNEY

While some might perceive depression as a journey, others might regard it as a journey without a destination. Other depressed patients in the group were considered traveling companions on the same journey due to their shared experiences. Moving on was a part of a journey in which patients tried to relieve themselves from depression. Patients also had to get through depression, no matter how hard this might be. In the statement "I have to pass (overcome) it," for instance, the type "pass" was frequently used to indicate the ability to recover from depression. The five mappings with 19 types are:

BEING ON A JOURNEY→HAVING DEPRESSION
i.e., traveling (1)

A JOURNEY WITHOUT DESTINATION→BEING DEPRESSED
i.e., pointless (1), aimless (2), no goal (1), no path (1), midway (1), without destination (1)

TRAVELING COMPANIONS→OTHER DEPRESSED PATIENTS
i.e., by your side (1), rest beside you (1), right here (1), await (1), be with (1), hold hands (1)

MOVING ON→RELIEF FROM DEPRESSION
i.e., move on (3), keep walking forward (1), way to walk (1)

ABILITY TO UNDERTAKE A JOURNEY→ABILITY TO RECOVER FROM DEPRESSION
i.e., pass (32), pass through (3), step over (1)

DEPRESSION IS A HEAVY LOAD

Depression can cause emotional pressure on patients; thus, they commonly feel that everything is heavy due to their inability to handle the illness. The weight of the load might vary depending on the severity of depression. However, relief from depression was thought of as removing a heavy load, as seen in the following statement: "The doctor says I have to <u>let it go</u>." The three mappings with six types are:

A HEAVY LOAD→DEPRESSION
    i.e., heavy (8)

BEARING A HEAVY LOAD→EXPERIENCING DEPRESSION
    i.e., move slowly (1), carry (1), hold me back (1)

REMOVING A HEAVY LOAD→RELIEF FROM DEPRESSION
    i.e., lay down (2), let go (2)

DEPRESSION IS A CONTAINER

Depression was conceptualised as a container. Patients found themselves trapped in a container. If patients were able to move out of the container, they might recover from depression, as in the following example: "I used to suffer a lot because I couldn't <u>slip out of</u> it." The three mappings with 10 types are:

A CONTAINER→DEPRESSION
    i.e., unlock (1)

BEING INSIDE A CONTAINER→EXPERIENCING DEPRESSION
    i.e., slip into (1), circle around (1), realm (1), round and round (1)

COMING OUT OF A CONTAINER→RELIEF FROM DEPRESSION
    i.e., slip out of (2), bring oneself out (1), pull oneself out (1), exit (1), disjoin (1)

DEPRESSION IS A SUBSTANCE IN A CONTAINER

Depression was also conceptualised as a substance in a container. Pressure is related to this concept because it builds up inside the container. Some patients attempted to control their depression, just like someone trying to keep a substance inside a container despite the presence of intense pressure. However, when control is lost, the substance may exit the container or explode. A sample sentence includes "So depressed, I can't <u>restrict</u> (control) it." The three mappings with 14 types are:

A PRESSURISED SUBSTANCE IN A CONTAINER→DEPRESSION i.e., pressured (7), cramped (5), choke up (2), accumulate (2), repressed (3), keep (1), repression (1)

TRYING TO KEEP A SUBSTANCE INSIDE A CONTAINER→CONTROLLING DEPRESSION
i.e., restrict (4), repress (4), control (7)

A SUBSTANCE LEAVING A CONTAINER→LOSING CONTROL OF DEPRESSION
i.e., release (37), deflate (1), explode (9), break (2)

A DEPRESSED PERSON'S MIND IS A CONTAINER

In some cases, patients perceived their minds as empty containers since there were perhaps no feelings in their minds, as in "Feeling so empty like a leaky glass." Some patients' minds, however, appeared to be closed containers, in that patients were probably not ready to open their mind to anyone. The two mappings with nine types are:

AN EMPTY CONTAINER→A DEPRESSED PERSON'S MIND
i.e., weightless (1), empty (3), leaky glass (1), fill (1), not full (1), hollow (1)

A CLOSED CONTAINER→A DEPRESSED PERSON'S MIND
i.e., close my mind (2), open my mind (2), open my mind slightly (1)

A DEPRESSED PERSON'S MIND IS A MACHINE

Patients perceived their minds as broken machines that could no longer be repaired, as in "My mind is broken." However, if perceived as a dysfunctional machine, the mind might still be fixed, enabling the sufferer to live a normal life again. The two mappings with eight types are:

A BROKEN MACHINE→A DEPRESSED PERSON'S MIND
i.e., wreck (1), cracked (1), ruined (1), broken (2), torn (1)

A DYSFUNCTIONAL MACHINE→A DEPRESSED PERSON'S MIND
i.e., fix (2), repair (1), adjust (1)

The Most Salient Conceptual Metaphors for DEPRESSION

In relation to the second research objective, Table 1 presents aggregate values representing the metaphorical salience of each conceptual metaphor.

The three most salient conceptual metaphors for depression in Thai ranked according to metaphorical salience were found to be DEPRESSION IS AN OPPONENT, DEPRESSION IS A JOURNEY, and DEPRESSION IS A WOUND with aggregate values of 45.46%, 43.39%, and 42.74% respectively.

The calculation, following the metaphorical salience-based corpus analysis, indicated that DEPRESSION IS AN OPPONENT was the most salient conceptual metaphor, with the highest aggregate value (45.46%) among all conceptual metaphors. It was also a highly elaborated conceptual metaphor, with different mappings (14.71%), types (13.74%), and tokens (17.01%).

The second most salient conceptual metaphor (i.e., DEPRESSION IS A JOURNEY) closely followed, with a similar percentage of mappings for the source domain OPPONENT. However, a slightly higher percentage of types (14.5%) and a lower percentage of tokens (14.18%) yielded an aggregate value of 43.39%.

Table 1

Metaphorical Salience of Each Conceptual Metaphor

Conceptual metaphor	Mapping	%	Type	%	Token	%	Aggregate value
DEPRESSION IS AN OPPONENT	5	14.71	18	13.74	66	17.01	45.46
DEPRESSION IS A JOURNEY	5	14.71	19	14.5	55	14.18	43.39
DEPRESSION IS A WOUND	4	11.76	21	16.03	58	14.95	42.74
DEPRESSION IS A SUBSTANCE IN A CONTAINER	3	8.82	14	10.69	85	21.91	41.42
BEING DEPRESSED IS DESCENT	5	14.71	15	11.45	49	12.63	38.79
DEPRESSION IS A VISITOR	2	5.88	11	8.4	26	6.7	20.98
DEPRESSION IS A CONTAINER	3	8.82	10	7.63	11	2.84	19.29
DEPRESSION IS A HEAVY LOAD	3	8.82	6	4.58	15	3.87	17.27
DEPRESSED PERSON'S MIND IS A CONTAINER	2	5.88	9	6.87	13	3.35	16.1
DEPRESSED PERSON'S MIND IS A MACHINE	2	5.88	8	6.11	10	2.58	14.57
Total	34		131		388		

DEPRESSION IS A WOUND, with a total aggregate value of 42.74%, was salient to a similar degree as the conceptual metaphor JOURNEY. This third-ranking salient conceptual metaphor had fewer mappings than the first two. However, it recorded the highest figure for types (16.03%). It received 58 tokens, fewer than the figure for the most salient conceptual metaphor, but slightly higher than that for the second-ranking one.

In addition to the top three, two more conceptual metaphors also obtained a similar percentage for aggregate value as the third-ranking one: DEPRESSION IS A SUBSTANCE IN A CONTAINER (41.42%) and BEING DEPRESSED IS DESCENT (38.79%). It is remarkable that, while only three mappings of the source domain A SUBSTANCE IN A CONTAINER were identified in the corpus, the highest number of tokens (85 out of 388) was generated, much larger than that for DEPRESSION IS AN OPPONENT. BEING DEPRESSED IS DESCENT was one of only three conceptual metaphors, in addition to the two most salient conceptual metaphors, that exhibited the highest number of mappings among all (i.e., five), regardless of its type and token frequencies.

Discussion

Results associated with the initial research objective yielded altogether 10 conceptual metaphors while those associated with the second revealed the following three conceptual metaphors to be the most salient: DEPRESSION IS AN OPPONENT, DEPRESSION IS A JOURNEY, and DEPRESSION IS A WOUND. The findings are consistent with previous studies in terms of the main conceptual metaphors (e.g., Angkapanichkit et al., 2019; Charteris-Black, 2012; Coll-Florit et al., 2021; Fullagar & O'Brien, 2012; McMullen & Conway, 2002), especially in relation to the concepts DESCENT, OPPONENT, JOURNEY, HEAVY LOAD, and CONTAINER. According to the metaphorical salience, the statistics revealed that even though some conceptual metaphors were also present in this study, others were not salient among the Thai patients.

DEPRESSION IS AN OPPONENT appears to be the most salient conceptual metaphor in the Thai context. The use of various word choices such as WAR, BATTLE, and VIOLENCE can also be seen in other scholars' works. However, the OPPONENT concept in this study was carefully formulated to illustrate patients' motivation to fight and control depression–the target opponent. The work of Fullagar and O'Brien (2012) is particularly relevant in this regard, as the BATTLE concept involves depressed patients' attempts to control the depression that is overwhelming them, their struggle with depression seen as an ongoing battle. Similarly, Coll-Florit et al. (2021) posited that patients are in an inferior position, with depression having control over them.

Taken altogether, depression is conceptualised as an opponent that patients must fight against and control; otherwise, it can damage their lives due to its superior power. If patients can defeat their opponent, they will consider themselves as winners; however, if they are defeated, they may end up thinking that they are losers and might therefore discontinue taking their medications and reject all forms of treatment. This conceptual metaphor reveals a shared embodied experience across cultures in that all elements of the source domain OPPONENT are mapped onto those of the target DEPRESSION by virtue of similarities at the cognitive level. For instance, the experience of "fighting an opponent" is mapped onto "dealing with depression" through the use of several types, such as "battle," "fight," and "confront", suggesting similarities in the conceptual mapping in the sense that depression has to be fought, just like an opponent.

In the Thai context, this conceptualisation is frequently found in peer support aimed at encouraging the sufferer to keep fighting the illness. Moreover, metaphorical expressions associated with VIOLENCE have been previously found in Semino et al.'s (2017) work, used by cancer patients to offer encouragement to one another as "fighters." Thus, the OPPONENT concept might be regarded as a good portent for recovery that helps boost the self-esteem of patients.

DEPRESSION IS A JOURNEY is the second most salient conceptual metaphor. The way depression is conceptualised as a journey obviously relates to our everyday experience of moving from one place to another, which we are all familiar with. This concept is evidence of depression as an embodied experience even though patients are not physically moving. The source domain JOURNEY involves physical experiences such as traveling while the target domain DEPRESSION involves complex emotional dynamics. Elements of JOURNEY, based on similarities in terms of cognition, are thus systematically mapped onto elements of DEPRESSION, allowing us to understand and reason about depression in terms of a journey.

According to the findings, assistance can also be obtained from traveling companions (i.e., other depressed patients in the Facebook group) along the way during the depression journey. This positive aspect of the concept JOURNEY that involves having friends was also discovered in previous research on cancer patients (Semino et al., 2017) and can be viewed as a source of empowerment. However, depression sometimes seems to be a journey without destination, as seen in the expression “no path,” indicating uncertainty about recovery. The results of the study therefore confirm that both conceptual metaphors (OPPONENT and JOURNEY) are indeed pervasive, not only in relation to the experiences of physical illnesses such as cancer, but also in relation to psychological states such as depression.

Unlike OPPONENT and JOURNEY conceptual metaphors, it is worth noticing that DEPRESSION IS A WOUND was not mentioned in other studies despite the salience found in the current study. This might reflect the profound influence of Thai patients’ embodied experience of physical wounds, as revealed in the use of various WOUND-related metaphorical expressions to conceptualise depression in the Thai context. This might also be due to the restricted acceptance of depression as a real sickness in Thai society, its conceptualisation as a wound being an indicator that it does exist. The concept WOUND is considered culture-specific to the Thai context, as different cultures may use different metaphorical expressions to conceptualise depression. The conceptualisation of depression as a wound represents how patients suffer from depression just as they would from a physical wound. Interestingly, even though it ranked third in terms of aggregate value according to metaphorical salience, this conceptual metaphor had the greatest quantity of types (i.e., 21 out of 131) related to the concept WOUND through similarities at the cognitive level, such as “heal,” “wound,” and “suffer.” Properties of the source domain WOUND include its concrete nature, its familiarity, and its association with bodily experiences while those of the target domain DEPRESSION include its abstract nature, its complexity, and its association with concepts that may not have direct sensory-motor correlates. Consequently, some properties, such as “pain from a wound”, are highlighted in our understanding of depression. Use of metaphorical expressions related to the concept WOUND should help others to understand that depression really exists even though it is invisible to the naked eyes and is unknown to those who have never experienced it. In addition, given Thai people's long-standing attachment to Buddhism, the concept of WOUND may perhaps have some connection to the belief in Dhamma Medicine—the teachings of the Buddha—to alleviate suffering from the invisible wound. The statement “I need encouragement to *heal* my mind,” for instance, reveals that depressed patients themselves believe depression can also be healed, just like a physical wound. This implies that they realise that depression should receive some form of treatment, whether it be medication or mental support. The WOUND concept eventually contributes to a proper understanding of the illness in terms of its existence and curability.

DEPRESSION IS A SUBSTANCE IN A CONTAINER, despite its fourth-placed ranking in metaphorical salience, yielded the highest percentage of tokens (21.91%). This figure is much higher than that for the top three conceptual metaphors if the token percentage alone is considered. This phenomenon results from repeated use of some metaphorical expressions among the Thai patients; for instance, "release" was used 37 times, leading to 37 tokens. This expression is in relation to the notion of losing control of overwhelming feelings. The patients might release these emotions by talking to others. If this conceptual metaphor were to be combined with the other two container-related conceptual metaphors (i.e., DEPRESSION IS A CONTAINER and A DEPRESSED PERSON'S MIND IS A CONTAINER), the overall aggregate value would be the largest, adding up to 76.81%. Nevertheless, these three conceptual metaphors had to be kept separate because DEPRESSION and DEPRESSED PERSON'S MIND are different target domains. However, this is in line with Charteris-Black's (2012) containment model, which states that depression and the depressed patient (i.e., the embodied self) can each act as a container. To illustrate, depression can be conceptualised as a container inside which patients find themselves; alternatively, patients may conceptualise themselves as containers containing thoughts, feelings, and emotions.

BEING DEPRESSED IS DESCENT is another significant conceptual metaphor relevant to depression and is recognised as one of the most dominant in seminal studies (e.g., Charteris-Black, 2012; McMullen & Conway, 2002). DESCENT is fundamentally in accordance with Lakoff and Johnson's framework regarding the orientational conceptual metaphor (i.e., SAD IS DOWN), which involves physical stance, the authors stating that "drooping posture typically goes along with sadness and depression" (Lakoff & Johnson, 1980, p. 15). Accordingly, descent is, globally, one of our most mundane physical experiences. People tend to lie down physically when they are ill, so they can also be thought of as feeling "down" mentally when depressed. As for the Thai context, DESCENT was previously mentioned in Angkapanichkit et al.'s research (2019) with the mutual use of "down" which relates to patients' physical posture. Indeed, it represents one of the most salient conceptual metaphors universally when referring to depression. Despite sharing the same concept, the current research, however, identified various actions associated with DESCENT, such as falling down to a lower level, as in "down to hell." The expression "hell" appears in conjunction with "down," indicating a lower level. This might result from the influence of religious belief prevalent among Thai people (i.e., Buddhism) regarding "hell." Since "hell" is an extremely unpleasant place full of suffering, it is understandable that this expression was used among Thai patients to communicate their agony.

The remaining conceptual metaphors, namely, DEPRESSION IS A VISITOR, DEPRESSION IS A CONTAINER, DEPRESSION IS A HEAVY LOAD, A DEPRESSED PERSON'S MIND IS A CONTAINER, and A DEPRESSED PERSON'S MIND IS A MACHINE, are not as salient as the ones mentioned previously. Their aggregate values ranged from 20.98% down to only 14.57%. However, the findings also revealed the influence of embodied and cultural experiences on these conceptual metaphors.

Also, according to CMT, there is no need for pre-existing similarities between any mapping, rather similarities at cognitive level. Evidence of the embodiment of depression, for example, can be found metaphorical expressions associated with the concept HEAVY LOAD, such as “let go” and “lay down,” which both possess the same meaning related to “unloading” in their Thai equivalents. They demonstrate our physical experience of offloading a heavy burden. Likewise, this experience is also thought of as relief from depression as we do not feel depressed anymore afterwards.

While only two concepts (i.e., WOUND and DESCENT), as discussed above, are considered culture-specific to the Thai context particularly in relation to Buddhism, others are thought to be universal, meaning they are also prevalent in other cultures. All of the 10 conceptual metaphors, however, may help us make sense of abstract ideas of depression through our embodied experiences, cultural conventions, and linguistic usage. Although conceptual metaphors provide a flexible framework for understanding abstract concepts, not all elements of the source domains in this study are mapped onto those of the targets. This process of highlighting properties is a fundamental aspect of how conceptual metaphors shape our understanding of depression.

Conclusion

This study investigated the conceptual metaphors for DEPRESSION in Facebook posts by depressed Thai patients to enhance understanding of their experiences. The study also aimed to identify the most salient conceptual metaphors to gain insights into the typical conceptualisation of DEPRESSION within the Thai cultural context. Ten conceptual metaphors were derived from the metaphorical expressions identified. Some of these metaphors are prevalent in other cultures, while others are unique to the Thai context. The most salient source domain was OPPONENT, followed closely by JOURNEY, and WOUND. While the first two have been acknowledged in previous studies on depression, *wound* appears to be more specific to this context.

The findings have significant implications for mental healthcare communication, offering insights into how depression is conceptualised through the metaphorical language used by patients. Understanding these metaphors can aid others in comprehending the thoughts and emotions of patients with depression. The findings may benefit linguists interested in cross-cultures studies of metaphorical expressions related to mental health. Given the close relationship between language and illness, this research contributes to a broader understanding of mental illnesses, such as depression, highlights the role of metaphor in human cognition and communication.

Despite its contributions, the study acknowledges certain limitations, including challenges in generalising the findings due to the data being sourced from only one Facebook group. Although the group restricts membership to patients, it includes individuals with other mental illnesses, such as anxiety disorder, which could introduce variability in the data. A more rigorous screening of posts may be required in future studies. To improve the generalisability of future research, larger sample sizes should be used, and the target groups should consist exclusively of patients diagnosed with depression.

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KONTAK DAN PERUBAHAN DIALEK: TINJAUAN TERHADAP MALAYIK HULU SEMENANJUNG

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ABSTRAK

Pemodenan Malaysia telah mempercepatkan perubahan dialek tradisional, dan ini dicerap menerusi peralihan struktur linguistiknya daripada yang kompleks kepada yang umum dan mudah. Berpandukan perspektif kontak dialek menerusi proses pelevelan, makalah ini membincangkan perubahan yang dialami oleh beberapa dialek tradisional Malayik hulu Semenanjung akibat kontak dengan dialek hilir. Antara dialek yang dianalisis ialah dialek hulu Kelantan, dialek hulu Dungun, dialek hulu Kedah dan dialek hulu Pahang. Makalah ini menegaskan bahawa faktor terpenting yang melatari perubahan dalam dialek yang dikaji ialah kontak yang ternatijah daripada migrasi daripada kawasan hilir ke kawasan hulu dan pedalaman. Secara tabii, migrasi tidak sekadar membawa batang tubuh manusia, tetapi yang turut ikut serta ialah bahasa yang dituturkan. Justeru, migrasi berdaya menghasilkan kontak dialek. Kemudian, kontak mewujudkan peminjaman antara dialek. Proses pelevelan beroperasi serempak dengan peminjaman, iaitu apabila dialek yang meminjam menstrukturkan sistem linguistiknya untuk disesuaikan dengan sistem linguistik dialek peminjam. Keempat-empat dialek yang dikaji sememangnya mematuhi peraturan ini, justeru menampakkan trajektori perubahan yang menuruti sistem linguistik dialek yang dipersepsikan lebih berprestij di sesebuah kawasan, iaitu dialek hilir, berbanding dengan bahasa piawai atau standard. Tuntasnya, makalah ini menawarkan kelihan yang menguntaikan fenomena perubahan dialek dengan kontak akibat migrasi. Kelihan ini menampilkan tafsiran baru tentang trajektori difusi dialek berdasarkan model heteronomi.

Kata Kunci: dialektologi; dialek Melayu; Malayik; perubahan dialek; kontak

Contact and Dialect Change: A Survey on Malayic in the Inland Peninsula

Abstract

The modernisation of Malaysia has accelerated the change of traditional dialects. This can be observed through the transition in the linguistic system of a traditional dialect, which is normally complex, to a simplified one. Based on the dialect contact perspectives through the leveling process, this paper discusses the features of change experienced by some traditional Malayic dialects in the Peninsula, namely hulu Kelantan dialect, hulu Dungun dialect, hulu Kedah dialect and hulu Pahang dialect. This paper asserts that the most important factor behind the dialectal changes is the community migration from downstream to upstream and inland areas. Naturally, the process does not only entail physical relocation, but also the language the people speak. Migration therefore produces contact and creates dialectal borrowings. The process of assimilation operates simultaneously with borrowing, when a borrowing dialect structures its linguistic system to adapt to the linguistic system of a borrowed dialect. The four dialects studied indeed comply with this formula, thus showing a trajectory of change that follows the linguistic system of a more prestigious dialect as opposed to the standard language. Finally, this paper offers an explanation that links the phenomenon of dialect change with ecology, thus showing the importance of ecological elements in determining the trajectory of change.

***Keywords**: dialectology; Malay dialect; Malayic; dialect change; contact*

Pendahuluan

Dialek tradisional merupakan dialek yang lazimnya dicirikan dengan sistem linguistik khusus dan kompleks. Sistem tersebut berbeza dengan sistem linguistik dialek dan bahasa piawai yang berciri umum dan mudah. Kompleksiti sistem linguistik dialek tradisional berpunca daripada tipologi sosiolinguistik yang berparameter “masyarakat yang akrab” disebabkan keterpencilan kawasan huniannya maka kebal daripada sebarang perubahan (Trudgill, 2011). Namun begitu, daya gerak pemodenan Malaysia, umpamanya menerusi penerokaan kawasan yang mempunyai potensi ekonomi, menatijahkan pelebaran perhubungan dan migrasi, justeru telah menyemarakkan kontak linguistik di semenanjung. Hal ini menyebabkan dialek tradisional mengalami perubahan daripada bersistem kompleks kepada bersistem mudah.

Perubahan dialek tradisional akibat kontak ini dapat ditafsirkan dengan dua keadaan. Pertama, kontak menghasilkan sistem linguistik baharu yang menggabungkan sistem linguistik sedia ada dalam ekologi linguistik di kawasan kontak (Britain & Trudgill, 1999; Trudgill, 2004). Kedua, kontak menatijahkan pelenturan sistem linguistik dialek tradisional dengan menuruti sistem linguistik dialek piawai yang memiliki prestij (Trudgill, 1986). Sama ada yang pertama mahupun kedua, perubahan yang dialami oleh dialek tradisional dalam situasi kontak ialah peralihan sistem linguistik yang spesifik dimilkinya kepada sistem yang lebih umum.

Kajian ini bertujuan membincangkan perkara tersebut secara terperinci dengan menjadikan dialek tradisional semenanjung sebagai objek penelitian. Isu yang menjadi fokus ialah apakah bentuk perubahan linguistik yang terjadi kepada dialek tradisional semenanjung? Kemudian, bagaimanakah pula trajektori perubahannya? Akhir sekali, apakah faktor yang mendorong perubahan linguistik dialek tradisional semenanjung? Sehubungan itu, objektif kajian ini adalah untuk mengenal pasti bentuk perubahan linguistik dialek tradisional yang dikaji, selain bertujuan menganalisis trajektori difusi dialek tradisional dan menentukan faktor yang mendorong difusi tersebut.

Bagi memastikan objektif dicapai dengan berpada, kajian ini menjadikan empat dialek tradisional semenanjung, iaitu dialek hulu Kelantan (DHK), dialek hulu Dungun (DHD), dialek hulu Kedah (DHKe) dan dialek hulu Pahang (DHP) sebagai bahan analisis. Keempat-empat dialek tersebut disifatkan sebagai tradisional disebabkan kesemuanya mematuhi tipologi sosiolinguistik yang dikemukakan oleh Trudgill (2011). Aspek linguistik yang menjadi fokus analisis ialah fonologi yang diperikan secara diakronik dan sinkronik. Pemerian fonologi diakronik dan sinkronik membolehkan analisis trajektori difusi dialek bagi menilai dan seterusnya menambah baik model heteronomi dialek yang sedia ada. Akhirnya, kajian ini turut membincangkan faktor yang menyebabkan peralihan dialek tradisional semananjung yang terdapat di kawasan hulu berpandukan perspektif ekologi manusia.

Sorotan Literatur

Tinjauan literatur menunjukkan kewujudan korpus ilmu yang signifikan tentang dialek yang dikaji. Secara umum, semua korpus kajian ini berfokus kepada tiga tema, iaitu (1) pemerian fonologi sinkronik dan diakronik, (2) fenomena linguistik yang dikaitkan dengan kontak dan faktor ekstralinguistik, dan (3) pembinaan model difusi dialek.

Pertama, pemerian fonologi sinkronik. Maksudnya menjurus pemerian sistem fonologi DHK, DHD, DHKe dan DHP dengan menerapkan teori dan pendekatan fonologi struktural, generatif serta neogeneratif seperti optimaliti dan autosegmental (Hussein, 1973; Mohd Noor, 1983; Omar, 1985; Sulaiman, 2015; Salam & Jaafar, 2019). Tujuannya adalah untuk menerbitkan rumus yang mendasari gejala fonologi dialek yang dikaji. Untuk diakronik pula, pemerian fonologi DHK, DHD, DHKe dan DHP berfokus kepada aspek retensi dan inovasi ciri linguistik bahasa dan dialek purba bagi tujuan pengelompokan dan penyebaran (Collins, 1983a, 1998; Omar, 1985; Hasrah, 2018a, 2018b, 2022; Hasrah & Abd Ghani, 2021; Abd Ghani & Hasrah, 2023).

Kedua, fenomena linguistik yang dikaitkan dengan kontak dan faktor ekstralinguistik (Hussein, 1973; Omar, 1985; Collins, 1983a, 1983b, 1998; Sulaiman, 2015; Abd Ghani & Hasrah, 2023). Keberadaan ciri linguistik tertentu dalam DHK, DHD, DHKe dan DHP sama ada retensi mahupun inovasi dipengaruhi oleh kontak dialek. Sebagai contoh, pengekalan vokal tinggi suku kata praakhir dalam DHK dan DHD. Selain itu, pemerian gejala linguistik dikaitkan juga dengan faktor ekstralinguistik seperti migrasi dan pelancongan, umpamanya keberadaan ciri konsonan beraspirasi dalam DHKe dan penyingkatan diftongisasi konsonantal dalam DHP.

Ketiga, pembinaan model difusi dialek. Hanya dua kajian yang relevan dengan tema ini, iaitu Omar (1985) dan Collins (2016). Omar menekankan dialek piawai di pusat kebudayaan sebagai sumber difusi. Oleh sebab itu, fenomena linguistik yang muncul dalam DHK, DHD, DHKe dan DHP dianggap berpunca daripada pengaruh dialek piawai yang dituturkan di pusat pentadbiran yang terletak di kawasan hilir, pekan dan bandar. Collins pula menegaskan tentang perubahan dialek tradisional ke arah penyatuan (1) dengan bahasa Melayu piawai berpandukan model heteronimi, dan (2) dengan "koine" piawai di sesebuah kawasan. Dengan contoh yang spesifik, iaitu dialek Hulu Tembeling (sebahagian daripada DHP), Collins mengemukakan bukti fonologi yang menunjukkan keberadaan dua arah difusi ini yang tersebar menerusi pendidikan, rangkaian komunikasi, pelancongan dan penghijrahan.

Tuntasnya, sorotan literatur menunjukkan tiga perkara. Pertama, fokus pemerian linguistik (iaitu fonologi) adalah terhadap aspek sinkronik dan diakronik tanpa mengambil kira perubahan yang bersifat semasa dalam masyarakat tutur. Dengan perubahan semasa, maksudnya perubahan linguistik antara generasi penutur. Kedua, walaupun kajian sedia ada menyentuh tentang pengaruh ekstralinguistik bagi menjelaskan fenomena linguistik yang dikaji, namun kupasan tentang pengaruh tersebut tidak dilanjutkan bagi merungkai perubahan linguistik semasa. Ketiga, terdapat percanggahan antara model difusi Omar (1985) dan Collins (2016), justeru menatijahkan persoalan tentang trajektori difusi yang lebih berpada bagi menjelaskan gejala perubahan linguistik dalam DHK, DHD, DHKe dan DHP.

Metodologi Kajian

Reka bentuk kajian ini berpaksikan pada metodologi kualitatif. Maka, pemberatnya ialah aspek pengumpulan dan pemerian data lapangan serta analisis dan tafsiran yang berpandukan kerangka teori atau pendekatan tertentu yang dianggap berpada.

Instrumen Kajian

Pengumpulan data di lapangan melibatkan penggunaan instrumen soal selidik yang dibina berdasarkan daftar kata asas Swadesh (Swadesh, 1951). Daftar kata asas ini disesuaikan pula dengan keadaan ~~A~~alam Melayu dan dikembangkan sehingga mencecah 600 item leksikal.

Pengumpulan Data

Data DHK, DHD, DHKe dan DHP dicuplik lewat kajian lapangan yang dilakukan secara berperingkat bermula pada 2009 hingga 2021. Asas penentuan kawasan kajian ialah pernyataan bahawa dialek tradisional ialah variasi yang memperlihatkan perbezaan ketara dengan bahasa piawai (Trudgill, 1999). Dialek tersebut dituturkan di kawasan pedalaman atau hulu lembangan sungai (Collins, 2016). Selain kedudukan geografi, pemilihan kawasan kajian juga disebabkan kewujudan persepsi masyarakat awam yang menyatakan bahawa pertuturan orang hulu dan pedalaman sukar difahami bahkan dianggap sebagai "bahasa lama (Collins, 1998, 2016). Semua justifkiasi ini berpandukan parameter tipologi sosiolinguistik (Trudgill, 2011). Jadual 1 memaparkan senarai kawasan yang dikunjungi.

Jadual 1
Senarai Kampung

Hulu Kelantan	Hulu Dungun	Hulu Kedah	Hulu Pahang
Kuala Betis	Pasir Raja	Bongor	Sentang

Informan

Dalam kajian ini, dua orang informan dipilih bagi setiap kawasan kajian. Pemilihannya ditentukan menerusi kriteria NORM/F (non-mobile, old, rural, male/female) (Chambers & Trudgill, 1998). Bagi menonjolkan kelainan pertuturan antara generasi, semua informan yang dipilih berusia dalam lingkungan 20-an hingga 80 tahun. Hal ini bermaksud kedua-dua orang informan yang ditemu bual mewakili generasi muda dan generasi tua masing-masingnya. Jadual 2 mengandungi maklumat ringkas tentang pecahan informan.

Jadual 2
Informan

Lokasi / Jantina	Kuala Betis	Pasir Raja	Bongor	Sentang
Lelaki	2	1	2	1
Perempuan	-	1	-	1

Pemerhatian Turut Serta dan Temu Bual

Bagi memastikan data yang dikumpul bersifat alamiah dan absah, maka kegiatan di lapangan bermula dengan pemerhatian turut serta terhadap lakuan pertuturan masyarakat. Lokasinya ialah pusat tumpuan masyarakat setempat seperti gerai dan warung. Tujuan pemerhatian turut serta adalah untuk mengenal pasti ciri linguistik khas dan perbezaan pertuturan antara generasi. Setelah dikenal pasti kedua-duanya, barulah temu bual rasmi dijalankan. Dua teknik temu bual diterapkan, iaitu temu bual langsung dan temu bual tidak langsung (Chambers & Trudgill, 1998). Untuk temu bual langsung, pengkaji mengajukan pertanyaan item demi item seperti “orang sini panggil apa?” sambil tangan menunjuk ke hidung. Bagi temu bual tidak langsung pula, pengkaji meminta informan bercerita tentang kisah yang berkaitan dengan item leksikal yang ingin dicuplik. Semua item leksikal dirakam dengan alat perakam dan ditranskripsi menggunakan lambang fonetik antarabangsa (International Phonetic Alphabet).

Pendekatan Analisis

Secara asas, kajian ini menerapkan pendekatan analisis deskriptif-struktural, dan pengoperasiannya berpandukan objektif yang ditetapkan. Oleh sebab kajian ini mengandungi tiga objektif, maka diperlukan juga tiga pendekatan analisis yang saling bertaut: (1) pemerian fonologi bagi mengenal pasti perubahannya, (2) penentuan faktor perubahan dan (3) pembinaan model trajektori difusi.

Pemerian Fonologi

Terdapat tiga peringkat analisis bagi mengenal pasti perubahan fonologi. Peringkat pertama ialah penentuan ciri khas DHK, DHD, DHKe dan DHP. Maksud ciri khas ialah ciri DHK, DHD, DHKe dan DHP yang tidak ada dalam dialek Malayik semenanjung yang lain, justeru dianggap sebagai unik bagi dialek-dialek tersebut. Prinsip penentuan ciri khas adalah jika sesuatu segmen bunyi dialek semasa berinovasi atau diretensikan daripada bahasa/dialek purba, dan ia pula tiada dalam dialek lain, maka segmen bunyi berkenaan dianggap ciri khas dialek semasa. Contohnya, inovasi bahasa Malayik purba (MP) *-a > DHD [-ɛ] ditafsirkan sebagai ciri khas DHD kerana inovasi ini unik di kawasan pedalaman Terengganu.

Peringkat kedua ialah perbandingan ciri khas DHK, DHD, DHKe dan DHP dengan dialek hilir. Secara spesifik, dialek hilir yang terlibat ialah dialek hilir Kelantan varian Pasir Mas dan Pasir Puteh (Che Kob, 1985; Hasrah, 2018a), dialek pesisir Terengganu varian Beladau Selat (Hasrah, 2018a), dialek hilir Kedah varian Alor Setar (Omar, 1985) dan dialek hilir Pahang varian Temerloh (Collins, 1983b; Zaidi et al., 2021). Penentuan perubahan dilakukan menerusi perbandingan ciri khas dialek hulu dengan ciri yang serupa dalam dialek hilir. Tujuan perbandingan adalah bagi menonjolkan perbezaan, justeru menegaskan kewujudan dua dialek di sesebuah kawasan (Hasrah, 2018a).

Analisis peringkat ketiga ialah pengenalpastian perbezaan ciri fonologi antara informan. Premis asasnya ialah ciri fonologi informan generasi tua mewakili ciri khas DHK, DHD, DHKe dan DHP, manakala ciri fonologi informan generasi muda pula dianggap mewakili ciri khas dialek hilir. Berpandukan kepada premis ini, perbandingan ciri fonologi dilakukan antara informan yang terlibat. Andaiannya, jika ciri fonologi informan generasi tua serupa dengan informan generasi muda, maka tidak berlaku peralihan dialek di kawasan hulu. Sebaliknya, jika ciri fonologi informan generasi muda memperlihatkan kelainan daripada ciri fonologi informan generasi tua, maka peralihan linguistik terjadi. Andaian pertama tidak unik, justeru tidak memerlukan analisis lanjut, tetapi tidak demikian untuk andaian kedua, maka analisis terperinci diperlukan. Isunya melibatkan penentuan bentuk perubahan dan trajektori peralihan linguistik.

Model Heteronomi Dialek

Penentuan trajektori perubahan dialek dibuat berpandukan konsep heteronomi dialek (Chambers & Trudgill, 1998). Secara kasar, konsep ini merujuk suatu keadaan yang memperlihatkan kecenderungan masyarakat bahasa yang bertutur dalam variasi tidak piawai tetapi beralih kepada variasi piawai. Dalam kajian ini, heteronomi dialek beroperasi apabila informan generasi muda dialek hulu mula beralih untuk menggunakan dialek hilir yang dianggap sebagai variasi piawai. Kajian ini akan membina model heteronomi bagi menggambarkan perubahan dialek tersebut.

Ekologi Manusia

Faktor perubahan dialek hulu kepada dialek hilir dianalisis berpandukan konsep ekologi. Akan tetapi, konsep ini dibataskan sekadar melibatkan ekologi manusia, iaitu migrasi. Premisnya, pertembungan atau kontak tidak hanya membawa batang tubuh manusia ke kawasan tertentu, tetapi turut membawa dialek yang dituturkan. Kontak mendatangkan natijah linguistik, iaitu peminjaman dan perubahan yang dipengaruhi oleh prestij sosial. Maka, kontak, peminjaman dan prestij sosial ialah tiga elemen penting yang dianalisis sebagai faktor pendorong perubahan dialek di kawasan kajian.

Dapatan dan Perbincangan

Penerapan pendekatan yang dikupas terhadap data yang dikumpul di lapangan dan data sekunder daripada kajian lepas menghasilkan dapatan tentang (1) pemerian ciri fonologi khas dan perubahannya, (2) trajektori difusi, dan (3) faktor perubahan.

Pemerian Fonologi Khas dan Perubahannya

Ciri fonologi khas merujuk ciri linguistik yang unik bagi DHK, DHD, DHKe dan DHP. Ciri tersebut tiada dalam dialek lain. Perubahannya pula bermaksud peralihan ciri fonologi khas DHK, DHD, DHKe dan DHP kepada ciri fonologi khas dialek hilir.

Dialek Hulu Kelantan

DHK ialah dialek yang dituturkan di hulu Kelantan di sepanjang Sungai Nenggiri hingga Bertam (Hasrah, 2018b, 2022). DHK merupakan dialek tersendiri kerana dicirikan dengan beberapa ciri fonologi khas, justeru terpisah daripada dialek yang dituturkan di kawasan hilir Kelantan (kawasan di sepanjang Sungai Kelantan bermula dari jajahan Kuala Krai hingga ke kuala sungai). Walaupun terdapat beberapa ciri fonologi khas DHK yang memperlihatkan persamaan dengan dialek hilir, namun kebanyakannya unik bagi kawasan hulu, antaranya:

1. Pengekalan vokal tinggi MP suku kata praakhir
2. Pengekalan MP *-aŋ

Dari segi penyebaran, kedua-dua ciri khas ini tidak meluas. Hal ini disebabkan ciri tersebut hanya dikesan dalam pertuturan penduduk asal hulu Kelantan. Penduduk yang berhijrah dari hilir mengekalkan ciri fonologi dialek hilir. Ciri MP *-aŋ umpamanya kekal dituturkan sebagai [-aŋ] oleh penduduk asal Kuala Betis seperti dalam [tula^{ŋ}] "tulang", tetapi leksikal ini disebut sebagai [tulɛ̃] oleh penduduk yang berhijrah dari hilir (Hasrah, 2018b, 2022).

Ternyata penghijrahan dari hilir ke hulu menyebabkan pergeseran linguistik. Kesannya, ciri dialek hilir telah mengambil alih ciri khas DHK terutama ciri (ii) di atas.

Hasrah (2018b, 2022) menyatakan bahawa ciri **-aŋ bagi dialek purba semenanjung timur terhasil daripada penyatuan MP *-am, *-an dan *-aŋ. Maksudnya, pada tahap dialek purba, semua konsonan nasal MP dalam lingkungan akhir kata mengalami penyatuan kepada **ŋ. Daripada inovasi dialek purba ini, setiap dialek mengambil trajektori sinkronik yang berbeza, iaitu inovasi dan retensi sekali gus. Salah satu dialek yang meretensikannya ialah DHK.

Jadual 3

*Pengekalan Nasal MP *-aŋ*

MP	DHK
*uɣaŋ	[uɣaŋ]
*aɣaŋ	[aɣaŋ]
*tuqəlaŋ	[tulaŋ]
*ayam	[aya^{ŋ}]
*tanam	[tanã^{ŋ}]
*malam	[mãla^{ŋ}]

Walau bagaimanapun, pengekalan tidak terjadi dalam urutan MP *-an. Hal ini dinyatakan demikian kerana DHK merealisasikan MP *-an sebagai [ɛ]. Contohnys, MP *təlan, *makan dan *taŋan muncul sebagai [təlɛ], [mãkɛ] dan [taŋɛ̃]. Perubahan ini menunjukkan persamaan dengan dialek hilir yang turut merealisasikan MP *-am, *-an dan *-aŋ kepada [-ɛ] (Che Kob, 1985; Hasrah, 2018b; Uthai, 2011; Wu, 2023).

Dalam pada itu, data yang diperoleh daripada informan generasi muda juga menunjukkan perilaku fonologi yang serupa dengan dialek hilir seperti yang terkandung dalam Jadual 4. Data dalam jadual ini memperlihatkan perubahan vokal MP *a yang mengikuti nasal kepada [ɛ].

Jadual 4

*MP *a > [ɛ]*

MP	DHK
*uɣaŋ	[oɣɛ]
*pisaŋ	[pisɛ]
*ayam	[ayɛ]
*tanam	[tanɛ̃]
*makan	[mãkɛ]
*taŋan	[taŋɛ̃]

Jika dibuat perbandingan data dalam Jadual 3 dengan Jadual 4, terdapat perbezaan realisasi vokal MP *a yang mengikuti nasal *m, *n dan *n. Perbezaan yang dimaksudkan ini boleh dikaitkan dengan generasi informan yang ditemu bual. Berkaitan dengan perkara ini, informan generasi tua meralisasikan MP *-aŋ dan *-am kepada [-aŋ] (Jadual 3), sebaliknya informan generasi muda mengubah MP *-am, -an dan -aŋ kepada [-ɛ] (Jadual 4). Dari segi perubahan antara generasi, rumusnya ialah MP *-am, *-an dan *-aŋ > generasi tua [-aŋ] > generasi muda [-ɛ]. Rumus perubahan bertahap ini menunjukkan kewujudan pengaruh dialek hilir di hulu apabila [-aŋ] (< MP

*-am dan *-aŋ) berubah kepada [-ɛ] menerusi pengguguran nasal akhir ([ŋ] > Ø) dan peninggian vokal ([a] > [ɛ]).

Persoalannya, mengapakah trajektori perubahan seperti ini terjadi? Hasrah (2019) menyatakan bahawa salah satu faktornya ialah migrasi penutur dialek hilir ke kawasan hulu. Keberadaannya di hulu membuatkan DHK bergeser dengan dialek hilir. Kesannya menyebabkan DHK meminjam beberapa ciri penting dialek hilir untuk diserapkan ke dalam sistem linguistiknya. Persoalan tentang sebab DHK yang merupakan dialek tempatan meminjam ciri dialek kelompok penghijrah akan dikupas dalam bahagian yang berkaitan.

Dialek Hulu Dungun

DHD dituturkan oleh masyarakat yang tinggal di hulu Sungai Dungun (Hasrah, 2020). Secara spesifik, kawasan ini melibatkan seluruh mukim Pasir Raja yang terdiri daripada tiga kampung, iaitu Pasir Raja, Shukor dan Jongok Batu. Hasrah (2020) mengemukakan tiga ciri linguistik khas yang menunjukkan DHD lebih dekat dengan dialek Hulu Tembeling dan DHP berbanding dengan dialek Terengganu. Ciri yang dimaksudkan ialah:

i. Pengekalan MP *i dan *u suku kata praakhir

MP	DHD
*ikuɣ	[ikɔ]
*tiŋuk	[tiŋɔ̃ʔ]
*timbak	[timbɔʔ]
*utak	[utɔʔ]
*ɣutan	[ɣutaŋ]
*ɣusak	[ɣusɔʔ]

ii. MP *-a > [-ɛ]

MP	DHD
*paha	[pəhɛ]
*muka	[mũkɛ]
*dada	[dadɛ]
*mata	[mãtɛ]
*təliŋa	[lliŋɛ̃]

iii. Preposisi lokatif MP *di direalisasikan sebagai [d] dengan penambahan konsonan geseran velar bagi kata dasar yang bermula dengan vokal, manakala preposisi MP *kə menjadi geminasi konsonan menerusi proses penyingkatan morfologi.

MP	DHD
*di atas	[dɣatah]
*di hulu	[dɣulu]

*di ujuŋ	[dɣudʒo]
*kə atas	[kkatah]
*kə ulu	[kkulu]
*kə ujuŋ	[kkudʒo]

Tiga ciri khas DHD ini memperlihatkan perbezaan dengan ciri dialek hilir di pesisir pantai Terengganu. Varian Beladau Selat misalnya menunjukkan realisasi berikut (Hasrah, 2018a, 2020):

1. Perendahan MP *i dan *u suku kata praakhir

MP	BELADAU SELAT
*ikuɣ	[ɛkɔ]
*tiŋok	[tɛŋɔ̃ʔ]
*timbak	[tɛmbɔʔ]
*utak	[ɔtɔʔ]
*ɣutan	[ɣɔtaŋ]

2. MP *-a > [-ə]

MP	BELADAU SELAT
*paha	[pəhə]
*muka	[mũkə]
*dada	[dadə]
*mata	[mãtə]
*təliŋa	[lliŋə̃]

3. Preposisi lokatif MP *di, *kə mengalami geminasi

MP	BELADAU SELAT
*di atas	[daːtah] [aːtah]
*di ulu	[duːlu] [uːlu]
*kə atas	[kkatah]
*kə ulu	[kkulu]

Perbandingan ketiga-tiga ciri DHD dengan ciri Beladau Selat memperlihatkan perbezaan, terutamanya dari segi realisasi fonem tertentu. Oleh sebab itu, Hasrah (2020) menarik satu kesimpulan bahawa DHD merupakan dialek yang membentuk cabang yang terpisah daripada dialek Terengganu pesisir walaupun kedua-duanya berada dalam negeri Terengganu.

Walau bagaimanapun, cerapan rawak di lapangan memberi gambaran tentang situasi pergeseran linguistik di Pasir Raja. Hal ini secara spesifik merujuk pemerhatian terhadap lakuan bahasa informan generasi muda yang menunjukkan perubahan dialek sedang berlaku. Bukan sahaja informan generasi muda, malah informan utama yang berusia lewat 50-an pun turut menunjukkan pergeseran linguistik dalam pertuturannya. Pergeseran linguistik yang dimaksudkan terserlah dalam dua ciri, iaitu:

1. MP *-a > [-ə]
2. Perendahan vokal tinggi suku kata praakhir

Untuk ciri (1), perkataan yang bermaksud "paha", "mata" dan "telinga" tidak lagi disebut oleh informan generasi muda dan informan utama sebagai [pəhɛ], [mãtɛ], [tliŋɛ] tetapi [pəhə], [mãtə], [lliŋə̃]. Maka, perubahan fonologi antara generasi ialah MP *-a > [-ɛ] > [-ə]. Fakta ini menunjukkan DHD memiliki trajektori perubahan yang menghala ke hilir, iaitu ke arah dialek pesisir. Hal ini disebabkan perubahan vokal MP *-a kepada schwa merupakan ciri khas dialek di pesisir pantai Terengganu (Hasrah, 2020; Omar, 2008; Wu, 2023).

Bagaimanakah peralihan linguistik bagi MP *a terjadi di kawasan hulu Sungai Dungun? Hasrah (2020) memberi bayangan tentang migrasi ke hulu oleh masyarakat hilir sebagai penyebabnya. Secara rinci, pada asalnya ketiga-tiga kampung paling hulu di Sungai Dungun dihuni oleh penutur DHD secara keseluruhannya. Kemudian berlaku migrasi penduduk hilir ke hulu menyebabkan pergeseran linguistik berlaku.

Hasrah (2020) turut menyatakan bahawa kontak antara masyarakat hulu dengan masyarakat hilir tidak sahaja berlaku di hulu, tetapi turut muncul di Kuala Dungun. Hal ini terjadi apabila ramai dalam kalangan anak dari Pasir Raja, Shukor dan Jongok Batu bersekolah di kuala. Kontak, sama ada yang terjadi di hulu mahupun di hilir, menghadirkan kesedaran kepada penutur DHD bahawa mereka merupakan sebahagian penduduk negeri Terengganu. Oleh sebab di negeri ini hanya terdapat satu varian dialek yang dominan dan berprestij, yakni dialek hilir atau pesisir (Collins, 1983a; Omar, 1985), maka penyerlahan keperibadian penduduk Terengganu adalah dengan menjadikannya sebagai wahana pertuturan (Keller, 1994).

Dialek Hulu Kedah

Hasrah dan Abd. Ghani (2021) serta Abd. Ghani dan Hasrah (2022) menegaskan DHKe yang dituturkan di Baling sepatutnya diiktiraf sebagai dialek tersendiri, dan bukannya sebagai subdialek kepada dialek Kedah seperti yang diterima umum (Omar, 1985; Sulaiman, 2015). DHKe membentuk cabang khas merangkumi dialek di Sik dan Pengkalan Hulu. Antara ciri khas DHKe termasuklah realisasi konsonan MP *ɣ di dua posisi, iaitu awal dan antara vokal. Di posisi akhir, MP *ɣ digugurkan. Perinciannya seperti berikut:

1. MP *ɣ > [ɣ] di posisi awal dan antara vokal

MP	DHKe
*ɣumah	[ɣumɔ̃h]
*ɣamay	[ɣamɛ̃]
*ɣəbus	[ɣbuh]
*kiɣi	[kiɣi]
*pəɣut	[pɣɔʔ]

2. MP *-ɣ > Ø, dengan perubahan nilai vokal yang hadir di sebelumnya

MP	DHKe
*bakaɣ	[bakɔ]
*iliɣ	[ile]
*aɲiɣ	[aɲɛ̃]
*aɲcuɣ	[atʃo]
*akaɣ	[akɔ]

Dalam dialek Kedah piawai, ciri (1) dan (2) memperlihatkan realisasi yang berbeza dengan DHKe. Menurut Omar (1985), bagi ciri (1), realisasinya ialah [ʁ]. Bagi ciri (2) pula, MP *ɣ > [ʕ]. Omar menegaskan kedua-dua ciri ini membentuk sekelompok inovasi khas dialek Kedah piawai. Oleh sebab realisasi MP *ɣ dalam DHKe berbeza dengan dialek Kedah piawai justeru menegaskan kemandiriannya, maka DHKe memerlukan pengelompokan khas yang terpisah daripada dialek piawai tersebut.

Walau bagaimanapun, ciri fonologi khas DHKe yang dipaparkan turut memperlihatkan pergeseran linguistik sehingga menyebabkan statusnya sebagai dialek tersendiri tidak lagi absah. Berkaitan dengan perkara ini, informan generasi muda yang ditemu bual dilihat menggunakan dialek Kedah piawai dalam banyak keadaan. Dengan bertutur dalam dialek Kedah piawai, maksudnya informan generasi muda mengubah konsonan MP *ɣ kepada [ʁ] seperti dalam [ʁumɔ̃h] "rumah", [ʁamɛ̃] "ramai" dan [dʒəʁin] "buah jering". Selain itu, informan generasi muda juga memperlihatkan realisasi MP *ɣ kepada konsonan frikatif faring [ʕ]. Maka, [bakɔ] "bakar", [akɔ] "akar" dan [ile] "hilir" dituturkan sebagai [bakaʕ], [akaʕ] dan [iliaʕ].

Fakta yang dikumpul di lapangan menunjukkan keberadaan konsonan MP *ɣ dalam DHKe telah berinovasi menerusi beberapa tahap sehingga menjelma dalam pertuturan informan generasi muda. Tahap yang dimaksudkan ialah:

1. MP *ɣ diretensikan sebagai [ɣ] di posisi awal dan antara vokal.
2. Di posisi akhir, MP *ɣ mengalami pengguguran, dan mengubah nilai vokal sebelumnya. Gejala ini boleh dianggap sebagai ciri kawasan di Baling (Hajek, 2010), kerana dialek-dialek dalam ekologinya seperti dialek Pengkalan Hulu (Che Rosdi & Aman, 2020; Che Rosdi et al., 2023) dan dialek Patani (Uthai, 2011) turut menunjukkan gejala yang serupa.
3. Konsonan geseran velar [ɣ] di posisi dalam (i) berubah kepada [ʁ] dalam pertuturan informan generasi muda.
4. Begitu juga di posisi (ii) kerana berlaku penambahan semula segmen yang digugurkan dalam pertuturan informan generasi muda, yakni daripada zero atau Ø kepada konsonan hentian anak faring [ʕ]. Penambahan ini juga mengubah nilai vokal asal, yakni [ɔ], kepada vokal [a].

Dari satu segi, kewujudan gejala yang dikupas ini dapat dikaitkan dengan asimilasi pertuturan. Hal ini dinyatakan demikian kerana terdapat informan generasi muda yang ditemu bual seakan-akan mahu menyembunyikan identiti dialek natif apabila bertutur dengan orang luar. Akan tetapi, dari segi yang lain pula, yakni apabila pemerhatian yang lebih terperinci dilakukan, penyebab yang lebih absah untuk dipertimbangkan ialah pertuturan informan generasi muda sudah beralih kepada dialek Kedah piawai.

Dialek Hulu Pahang

DHP ditakrifkan sebagai dialek yang dituturkan di lembangan Sungai Jelai, bermula dari Kuala Tembeling hingga ke hulunya di Kampung Serau, sebahagian perkampungan di kiri-kanan Sungai Lipis hingga ke Kuala Lipis termasuk kampung yang terletak di sepanjang Sungai Kechau (Hasrah, 2022; Hasrah et al., 2014). Kawasan ini merangkumi kampung yang terdapat di sungai kecil lain. Walau bagaimanapun, perbincangan dalam bahagian ini hanya tertumpu kepada varian hulu Kechau.

Varian hulu Kechau dituturkan di kawasan Kechau bahagian atas meliputi kawasan yang bermula dari Kampung Melaka hingga ke Kampung Dada Kering (Hasrah, 2022). Semua kawasan ini diumpukkan di bawah nomenklatur hulu Kechau walaupun penduduknya tidak menggunakannya sebagai gelaran terhadap varian yang dituturkan. Berdasarkan data yang dikumpul di Sentang, dialek hulu Kechau memperlihatkan dua ciri fonologi khas, iaitu:

1. MP *ɣ > [ʁ] di posisi awal dan antara vokal

MP	DHP
*ɣumah	[ʁumɔ̃h]
*təɣbaŋ	[tʁəbɑ]
*kəɣbaw	[kʁəbɔ]
*paɣaŋ	[paʁɑ]
*saɣaŋ	[saʁɑ]

2. MP *a > [ɑ] yang hadir sebelum nasal *m dan *ŋ

MP	DHP
*malam	[mãlɑ]
*dalam	[dalɑ]
*teraŋ	[tʁɑ]
*kandaŋ	[kãndɑ]
*pisaŋ	[pisɑ]

Dalam konteks dialek Pahang secara umum, keberadaan ciri (1) dan (2) berstatus distingtif. Maksudnya, kedua-dua ciri ini menjadi penanda bagi membezakan satu varian dengan varian yang lain. Fakta linguistik dialek Pahang ialah konsonan geseran velar [+suara] MP diretensikan dalam kebanyakan varian (Collins, 1983; Hasrah, 2022; Hasrah, et al., 2014; Idris, 1987; Omar, 2008; Saari et al., 2022; Zaidi et al., 2021). Maka, realisasi MP *ɣ kepada geseran uvular [ʁ] di hulu Kechau boleh dianggap sebagai inovasi khas (Hasrah, 2022). Realisasi MP *a juga serupa dengan MP *ɣ. Jika MP *a direalisasikan kepada [ɑ] di Kechau, di kawasan lain vokal ini kekal sebagai [a] dengan beberapa variasi (Collins, 1983b; Hasrah et al., 2014; Hasrah, 2022). Dalam huraian lain, di Hulu Pahang khususnya Kechau, realisasi MP *a juga berfungsi sebagai penanda yang membezakannya dengan varian lain, seperti varian Budu yang menunjukkan kewujudan vokal yang dinasalkan (Hasrah, 2018a, 2019).

Walau bagaimanapun, pemerhatian terhadap informan generasi muda di Kampung Sentang memperlihatkan fenomena pergeseran linguistik dalam dua ciri di atas. Hal ini terjadi demikian kerana penyebutan [ʁ] dan [ɑ] yang menjadi ciri distingtif varian hulu Kechau sudah "dicairkan". Perkataan "dicairkan" sengaja diletakkan tanda petik kerana persepsi masyarakat di Kuala Lipis ialah varian hulu Kechau agak "pekat" bunyinya kerana banyak fonemnya dihasilkan di titik artikulasi yang lebih ke belakang (Collins, 1983b; Hasrah, 2022; Hasrah et al., 2014). Pencairan [ʁ] dan [ɑ] menghasilkan bunyi [ɣ] dan [a]. Sebagai contoh, MP *ɣumah "rumah" tidak lagi disebut sebagai [ʁumɔ̃h] tetapi [ɣumɔ̃h]. Begitu juga dengan MP *malam "malam" yang dilafazkan sebagai [mãla] bukan [mãlɑ].

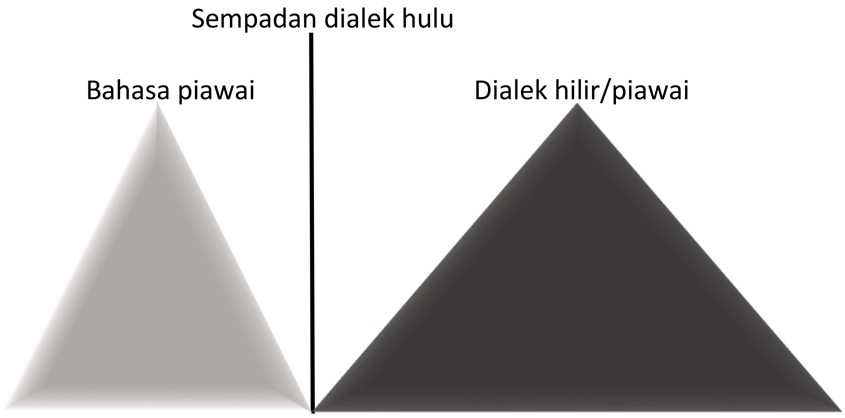
Pergeseran linguistik seperti ini menunjukkan kecenderungan penutur varian hulu Kechau untuk menonjolkan gaya pertuturan dialek Pahang am. Faktanya, untuk bersatu dengan masyarakat yang lebih luas dan memiliki prestij, maka penutur varian hulu Kechau perlu memperlihatkan kebersamaan. Salah satu kebersamaannya adalah dari aspek linguistik. Omar (1985) menyatakan bahawa dialek Pahang piawai berdasarkan varian Pekan. Antara pewajaran Omar ialah kawasan tersebut memiliki prestij budaya, politik, ekonomi dan sosial. Semua ini ikut menjelmakan prestij linguistik. Maka, difusi linguistik dari Pekan yang tersebar menerusi kontak hilir-hulu di lembangan Sungai Pahang telah menghadirkan kesedaran kepada informan generasi muda di hulu Kechau untuk ikut bergabung menjadi orang Pahang yang tulen.

Trajektori Perubahan Dialek

Analisis perubahan ciri fonologi khas dialek hulu menunjukkan kewujudan pola yang mendekatkannya dengan dialek piawai di kawasan kajian. Dialek piawai yang dimaksudkan ialah dialek hilir yang lebih berprestij (Omar, 1985). Trajektori seperti ini memperlihatkan perbezaan dengan Collins (2016) yang menampilkan kesimpulan bahawa peralihan dialek tradisional semenanjung adalah kepada bahasa Melayu piawai, kesan daripada kegiatan pembakuan bahasa yang dipaksakan menerusi pendidikan dan sistem penyiaran kebangsaan.

Seperti yang dinyatakan, hasil perbincangan menunjukkan trajektori perubahan dialek hulu yang berbeza dengan kesimpulan Collins kerana penyatuannya bukan kepada bahasa Melayu piawai tetapi kepada dialek piawai. Dapatan ini menyamai kesimpulan Omar (1985) yang menegaskan jalur difusi dialek adalah daripada kawasan pusat budaya yang dianggap menuturkan dialek piawai ke kawasan hulu. Secara gambar rajah, trajektori difusi ini dapat direpresentasikan menerusi konsep heteronomi dialek (Chambers & Trudgill, 1998), iaitu:

Rajah 1
Trajektori Perubahan Dialek Hulu



Rajah 1 menggambarkan arah perubahan dialek hulu yang menghala kepada dialek hilir, bukan kepada bahasa piawai. Hal ini ditunjukkan dengan segi tiga gelap yang lebih besar berbanding dengan segi tiga bahasa piawai yang lebih kecil. Penggunaan dua segi tiga bagi mewakili bahasa piawai dan dialek hilir/piawai ini bertujuan menunjukkan hakikat bahawa bahasa piawai masih mempengaruhi trajektori perubahan dialek hulu. Akan tetapi, pengaruhnya tidak begitu dominan berbanding dengan pengaruh dialek hilir/piawai.

Faktor Perubahan

Persoalannya, mengapakah berlaku pergeseran linguistik di semua kawasan hulu yang dikaji justeru menatijahkan peralihan kepada dialek hilir? Bagi mengupasnya, kajian ini berpandukan kepada konsep ekologi terutama ekologi manusia.

Ekologi Manusia

Ekologi manusia merujuk kedinamikan interaksi manusia dengan persekitaran (Smith & Pimm, 2022). Salah satu elemen ekologi manusia yang penting ialah demografi dan populasi yang menyebabkan migrasi atau penghijrahan (Britain & Trudgill, 2003). Migrasi berakhir dengan pembentukan dialek baru menerusi proses pelevelan (Trudgill, 2004). Walaupun bahagian sebelum ini tidak menunjukkan sebarang gejala pembentukan dialek baru, tetapi migrasi menyebabkan kontak manusiawi, yang ikut menghasilkan kontak dialek. Dalam situasi kontak, mekanisme *levelling* (Kerswill, 2003) mendominasi kolam linguistik [*feature's pool*] (Mufwene, 2001), justeru berdaya menatijahkan inovasi linguistik dialek termasuk trajektori difusinya. Oleh sebab itu ekologi manusia dianggap sebagai faktor penting bagi menjelaskan gejala perubahan dialek di kawasan yang dikaji.

Hakikatnya, manusia tidak kekal menetap di sesebuah kawasan selama-lamanya. Keperluan ekonomi dan penghidupan mendesak manusia berhijrah ke kawasan lain. Lebih menarik lagi ialah penghijrahan tidak sekadar membawa batang tubuh, tetapi turut beriringan dengan kebudayaan dan bahasa (McNill, 1984). Menetapnya manusia di sesebuah kawasan membolehkan kawasan berkenaan dimanipulasi untuk kepentingan ekonomi, sosial atau politik. Berdasarkan fakta ini, dapat disimpulkan bahawa penghijrahan manusia ke kawasan hulu dan pedalaman di semenanjung turut ikut mengubah landskap budaya dan linguistik.

Omar (1985) umpamanya pernah menyinggung perkara ini sewaktu menghuraikan keragaman linguistik di Kuala Lipis yang diakibatkan oleh migrasi dari hilir ke hulu dan dari luar Pahang ke hulu Jelai. Lebih awal lagi daripada Omar ialah Hussein (1973) yang juga mengaitkan kerencaman dialek Pahang di Raub dengan migrasi orang Rawa dari Sumatera dan migrasi kesan daripada kegiatan perlombongan emas. Perubahan linguistik yang terjadi di hulu Kelantan, hulu Dungun, hulu Kedah dan dan hulu Pahang yang dikupas dalam bahagian lalu juga bertepatan dengan realiti yang dinyatakan ini. Maka, ia sememangnya menunjukkan bahawa penghijrahan manusia ke kawasan tersebut telah mempengaruhi aspek linguistik dalam dialek yang dituturkan.

Sebagai contoh, perubahan yang terjadi terhadap ciri fonologi khas DHK, iaitu daripada MP *aŋ kepada [-ɛ]. Perubahan ini jelas menunjukkan pengaruh dialek hilir. Maka, dapat dikatakan bahawa dialek hilir berdaya mengalih gaya pertuturan khas DHK bagi menuruti gaya pertuturan masyarakat yang menuturkan dialek hilir. Hal yang sama terjadi kepada DHD yang menjelmakan realisasi MP *a di posisi akhir sebagai [ɛ], serupa dengan dialek Hulu Terengganu (Collins, 1983a; Hasrah, 2022; Wu, 2023). Pada masa ini realisasi [ɛ] sudah beralih kepada [ə]. Vokal *schwa* dalam posisi ini merupakan ciri khas dialek Terengganu pesisir (Hasrah, 2020; Wu, 2023) yang dibawa oleh orang hilir yang berhijrah ke hulu Sungai Dungun.

Secara umum, perbincangan tentang perubahan ciri fonologi khas dialek yang dikaji menunjukkan keberadaan trajektori perubahan linguistik yang disebabkan oleh ekologi manusia. Trajektori yang dimaksudkan ialah penghijrahan masyarakat hilir ke kawasan hulu dan pedalaman telah mengimplikasikan suatu keadaan yang menuntut masyarakat asal di hulu mengubah gaya pertuturan agar menuruti percakapan orang yang berhijrah. Sandaran utama bagi kesimpulan ini ialah kupasan Trudgill (1986) tentang peranan prestij dalam situasi dialek berkontak; termasuk kupasan Kerswill (2003) yang menyatakan sebab *geographical diffusion* sesuatu dialek berpunca daripada kawasan penutur yang "...*populous and economically and culturally dominant centre*" (hlm. 225). Maka, masyarakat yang berhijrah dari hilir berasal dari kawasan pekan atau bandar dihuni ramai, justeru lebih berprestij sama ada dari segi sosial, budaya mahupun ekonomi. Kesannya, gaya pertuturan kawasan penghijrah akan menjadi panduan kepada penduduk di kawasan yang dihijrah. Hal ini dinyatakan demikian kerana pertuturan natif masyarakat kawasan yang dihijrah dipersepsikan sebagai kurang berprestij berbanding dengan pertuturan masyarakat penghijrah.

Tindak-Jelma Kejatian

Perbincangan berkaitan aspek fonologi dialel ini menunjukkan sebab utama yang mendorong difusi dialek hilir-hulu boleh dikaitkan dengan fenomena tindak-jelma kejatian (*acts of identity*) (Le Page & Tabouret-Keller, 1985). Berkaitan dengan hal ini, kecenderungan penutur untuk memilih lambang linguistik tertentu sebagai bentuk piawai pertuturan merupakan manifestasi psikologi bagi mengasosiasikan diri mereka dengan masyarakat bahasa yang dipersepsikan sebagai lebih berprestij (Le Page & Tabouret-Keller, 1985). Proses pengasosiasian berlaku secara sedar kerana ia melibatkan keinginan anggota masyarakat bahasa untuk ikut bergabung dengan masyarakat bahasa lain, justeru menegaskan hakikat bahawa pemilihan sesuatu lambang linguistik bagi mewakili pertuturan disandarkan pada kemahuan untuk bersatu dengan pengguna asal atau pengguna awal lambang linguistik berkenaan.

Hal yang serupa pernah dibincangkan oleh Trudgill (1986) tentang wawasan *dialect in contact* dan kemudiannya Trudgill (2011) menerusi idea *sociolinguistic typology*. Dalam Trudgill (1986), diperikan kecenderungan penutur bahasa Inggeris England untuk meniru aksen bahasa Inggeris Amerika Syarikat. Tujuannya adalah untuk memastikan penyatuan penutur jati bahasa Inggeris England itu dengan masyarakat bahasa di Amerika Syarikat. Dengan tipologi sosiolinguistik, Trudgill (2011) menegaskan bahawa peralihan bahasa daripada struktur yang kompleks kepada struktur mudah (*simple*) berpunca daripada penyatuan penutur bahasa X dengan masyarakat bahasa Y dalam situasi kontak. Sejajar dengan wawasan Le Page danTabouret-Keller, Trudgill juga beranggapan bahawa faktor penting yang mendorong penyatuan seperti ini ialah prestij.

Maka, tindak-jelma kejatian berfungsi sebagai penyebab kepada pergeseran linguistik di semua kawasan kajian. Di kawasan hulu, proses pelevelan menyebabkan banyak ciri diagnostik dialek lenyap secara beransur-ansur. Contohnya, realisasi fonem MP *a di Hulu Terengganu dan ~~h~~Hulu Dungun kepada [ɛ], justeru menjadi inovasi khas bagi kedua-dua dialek. Akan tetapi, realisasi [ɛ] dalam pertuturan informan generasi muda sudah berubah kepada [ə], yakni mengikuti ciri dialek Terengganu pesisir. Contoh kedua ialah perubahan realisasi bagi urutan fonem MP *-am, *-aŋ dan *-an di Kuala Betis. Realisasi urutan ini asalnya ialah [-aŋ], kemudian berubah menjadi [-ɛ] sejajar dengan bentuk pertuturan di kawasan hilir. Contoh ketiga pula ialah realisasi MP *ɣ di Baling. Dalam bentuknya yang asli, DHKe mengekalkan fonem MP *ɣ. Namun begitu, realisasi fonem ini berubah kepada [ʁ], sama seperti bentuk yang ada dialek Melayu Kedah yang piawai.

Mengapakah peralihan seperti ini terjadi? Sebab perubahan mengambil tempat di Hulu Terengganu, Hulu Dungun, Hulu Kelantan, Baling dan hulu Pahang ialah kecenderungan penutur asli dialek hulu ini untuk menjadi sebahagian daripada masyarakat penutur dialek hilir. Hal ini dinyatakan demikian kerana kawasan hilir dianggap sebagai kawasan yang memiliki prestij dalam segenap lapangan termasuk bahasa (Nasir, 2005). Kalau menjadikan Kelantan sebagai contoh, kawasan hilir Kelantan merupakan kawasan pusat kebudayaan, maka kawasan tersebut memiliki prestij yang tersendiri. Maka, takrif menjadi “orang Kelantan” bermaksud “menjadi serupa dengan orang di kawasan hilir”. Hal inilah yang berlaku di Hulu Kelantan, yakni adanya kesedaran dalam kalangan penutur DHK untuk bergabung dengan penutur dialek hilir agar dapat membentuk satu kelompok orang Kelantan. Maka, orang di Hulu Kelantan pun bertindak secara sedar untuk mengubah unsur linguistik yang menjadikannya berbeza dengan orang di hilir, iaitu dengan mendepankan [-aŋ] kepada [ɛ].

Keadaan di Hulu Terengganu juga demikian. Fakta linguistik dialek Terengganu piawai ialah perubahan MP *a kepada [ə] di posisi akhir. Di kawasan hulu, sama ada hulu Dungun mahupun Hulu Terengganu, dialek aslinya tidak menunjukkan perubahan seperti ini, tetapi muncul sebagai [ɛ]. Kini, di kedua-dua kawasan hulu ini telah berlaku perubahan daripada [ɛ] kepada [ə]. Hal ini menunjukkan tiada lagi pemisahan antara dialek hulu dengan hilir di Terengganu kerana kedua-duanya sudah merealisasikan bentuk *schwa* bagi vokal MP *a. Sebab utama yang menjelmakan keadaan ini ialah keinginan penutur dialek di kawasan hulu untuk ikut bergabung dengan penutur dialek pesisir bagi membentuk masyarakat Terengganu, memandangkan kawasan hilir memiliki prestij yang tidak dimiliki oleh penduduk yang tinggal di kawasan hulu sungai.

Kesimpulan

Kajian ini menghuraikan pergeseran ciri fonologi khas DHK, DHD, DHKe dan DHP dan perubahannya ke arah penyatuan dengan dialek hilir. Penyatuan ciri fonologi khas dialek hulu dengan dialek hilir menjelmakan difusi dialek dari hilir ke hulu. Kajian ini juga telah membincangkan faktor yang mendorong perubahan dialek hulu kepada dialek hilir yang dikaitkan dengan konsep ekologi manusia.

Dari segi fonologi, DHK, DHD, DHKe dan DHP memiliki ciri khas yang terhasil daripada inovasi dan retensi fonem MP. Ciri tersebut masih jelas kedengaran dalam pertuturan informan generasi tua. Perbandingan dengan pertuturan informan generasi muda menunjukkan berlakunya peralihan linguistik. Maksudnya, informan generasi muda sudah tidak atau jarang menuturkan ciri khas dialek hulu seperti informan generasi tua. Analisis perbandingan fonologi menunjukkan bentuk linguistik yang dituturkan oleh informan generasi muda ialah ciri khas dialek hilir.

Peralihan informan generasi muda dialek hulu kepada ciri khas dialek hilir menunjukkan trajektori difusi dialek adalah dari hilir ke hulu. Kajian ini menganalisis trajektori ini menerusi model heteronomi dialek, lantas menampilkan kesimpulan bahawa bukan bahasa Melayu piawai yang berfungsi sebagai sumber difusi tetapi dialek yang dianggap piawai di kawasan hulu, dan dialek piawai tersebut merupakan dialek yang dituturkan di kawasan hilir. Trajektori difusi dialek yang sedemikian membolehkan kajian ini menambah baik model heteronomi dialek yang dikemukakan oleh Collins (2016).

Trajektori difusi dialek hilir > hulu turut menimbulkan persoalan tentang faktor penyebabnya. Kajian ini mengupas secara rinci sebab ekologi manusia, atau secara spesifiknya migrasi masyarakat hilir ke kawasan hulu. Kajian ini menegaskan bahawa keberadaan masyarakat hilir di kawasan hulu memberi kesan secara psikologi kepada masyarakat hulu untuk berasimilasi, justeru membentuk masyarakat linguistik yang lebih luas. Kesan psikologi ini dikupas menerusi konsep tindak-jelma kejatian.

Oleh sebab terdapat banyak kekangan, maka masih banyak isu yang belum terjawab tentang perubahan dialek di kawasan hulu dan pedalaman serta trajektori difusinya lantas menuntut kajian yang lebih mendalam dan sistematik. Pertamanya, adakah semua kawasan hulu dan pedalaman memperlihatkan pola perubahan yang serupa maka boleh digeneralisasikan dalam semua keadaan? Kedua, adakah peringkat morfologi dan sintaktik turut memperlihatkan perubahan yang serupa? Ketiganya pula adakah trajektori difusi hanya bersifat sehala, yakni hilir > hulu, atau mungkin trajektorinya bersifat dua hala?

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LANGUAGE CONTESTATION AT BOROBUDUR TEMPLE, THE WORLD'S LARGEST BUDDHIST TEMPLE

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ABSTRACT

This study aims to explore various types of public signs with different uses, designs, and materials to determine the contestation of local, national, and international languages in the Borobudur Temple area, particularly in relation to ideology and identity. Public signs were photographed on December 20, 2022. A total of 299 photos were analysed using linguistic landscape theories based on a qualitative descriptive method with techniques of quantification of qualitative data and interpretive descriptions. The results showed 28 types of signs. The most common public signs are of the Top-down type, with Indonesian being the most widely used language. This represents a solid national identity because Indonesian is the language of unity and the *lingua franca* of the entire Indonesian nation. English is the second most frequently used language at the Borobudur Temple, a well-known international tourist site. Other than Indonesian and English, Javanese language and script, which reflect local identities, are little used on public signs. The findings suggest that local language seems to be marginalised.

Keywords: Borobudur; ideology; identity; language contestation; public signs

Introduction

The Borobudur temple is a cultural heritage site recognised by UNESCO. It was designated as a World Cultural Heritage Site in 1991 and listed as the world's largest Buddhist temple (Bear et al., 2021). The temple, located in Magelang Regency, Central Java, Indonesia, is one of the most important temples for Buddhists. Celebrations and commemorations of Buddhist religious holidays are held in the temple. One of them is the Vesak celebration (a celebration of the birth, enlightenment, and death of Buddha) which is held annually.

Visitors to Borobudur Temple are not only Buddhists because this temple is open to the public. On 15 July 1980, it was inaugurated as a tourist spot (Wiratmoko, 2012). This ancient Buddhist temple is so important and well-known that it has become one of Indonesia's super-priority tourism destinations (Kusumowidagdo & Rembulan, 2022; Rembulan et al., 2022). Thousands and even millions of tourists, both domestic and foreign, visit the Borobudur temple every year. In 2022, the temple was visited by 1,497,222 tourists (Centre of Statistics Bureau of Magelang Regency, 2022)

Table 1

The Number of Tourists Visiting Borobudur Temple 2020-2022

Tourists	Number per year		
	2020	2021	2022
Foreign	31,551	674	53,936
Domestic	965,699	422,930	1,443,286
Total	997,250	423,604	1,497,222

Millions of visitors come for various reasons. Some enjoy the temple's popularity by taking a tour to witness the ancestral heritage. Some others pray. Some are engrossed in observing the structure of the building and the reliefs. All activities can occur because the Borobudur temple performs several functions, such as education, research, tourism, and as a place of worship (Pageh et al., 2022). The last function was assigned on 11 February 2022 with the signing of a memorandum of understanding between the Government of the Special Region of Yogyakarta, the Government of Central Java Province, the Ministry of Religion, the Ministry of Education, Culture, Research and Technology, the Ministry of State-owned enterprise, the Ministry of Tourism and Creative Economy to make Borobudur Temple a place of worship for Buddhists from around the world (Taman Wisata Candi Borobudu, 2022).

Nevertheless, despite all the functions it performs, the Borobudur temple, receives limited linguistic research attention, particularly within the framework of linguistic landscape (LL). Past studies on Borobudur Temple focussed on tourism, architecture or business (Devi & Kesumasari, 2020; Kowal, 2019; Munandar, 2016; Pradana et al., 2020; Usmawati et al., 2021). Linguistically, Borobudur presents intriguing aspects worthy of investigation. Covering an extensive area of six hectares, Borobudur hosts millions of tourists from various nationalities and backgrounds. Hence, it must accommodate the diverse interests of these visitors, given its multifaceted functions as a temple. Consequently, understanding the patterns of how different languages are used on public signs becomes essential.

This study adopts the framework of LL studies to analyse interactions with public signs. Introduced by Landry and Bourhis (1997), LL serves two primary functions: informative and symbolic. Researchers in linguistics study the existence, representation, meaning, and interpretation of languages displayed in public places (Fedorova & Nam, 2023; Lu et al., 2020; Shohamy, 2019). One of the reasons why LL studies are captivating is their emphasis on the LL phenomenon as a symbolic construction (Andriyanti, 2019; Duizenberg, 2020). LL provides a different and unique perspective on multilingualism. LL field is very broad.

It also delves into the tourism field, providing a conceptual understanding of language use and their relation to tourism. Diana et al. (2022) examined the language used in labelling historical objects at the Keraton Sumenep Museum. It was discovered that Indonesian is the preferred language, as the majority of visitors are local tourists who are fluent in it. Furthermore, the English language appears in LL because the museum attracts some visitors from abroad.

Researchers found that the use of the English language in tourism is market-driven. Rong's (2018) result shows that English is becoming a pivotal part of the LL of Beijing 5A tourism spots; China now actively participates in the globalising process of English language commodification. On the other hand, Dong et al. (2020) investigated the intersection of language practices and ideologies in cultural heritage sites and tourism scenic spots in Bangladesh. They showed that the linguistic environment is inherently multimodal. The sociopolitical dimension to their study can be examined via the official establishment of a policy oriented towards the use of a monolingual sign of Bengali which emphasises the use of the national language as a symbol of Bangladeshi nationality and identity. English is perceived as a post-colonial reproducer of linguistic hegemony. On the other hand, the use of Arabic and Chinese languages in Bangladesh points towards consideration of economic factors. The former is a reflection of Islam, the predominant religion of the population and the latter is a recently emerged foreign language in the country. The study offers a fresh perspective on the globalisation-related multilingual practices in Bangladesh as well as its language planning and management.

Language contestation is one of the studies in multilingualism related to language marginalisation and dominant language. A region's ideological factors and political conditions are very influential in this type of case. Edwards (2009) stated that language contestation relates to identity in a social context that cannot be separated from the language of a community group. This identity can refer to all identities that humans have in life, including religious, social, ethnic, cultural, and national identities. Shohamy (2012) views public space as an area that any party does not own. To claim public space to one's own is a form of language contestation.

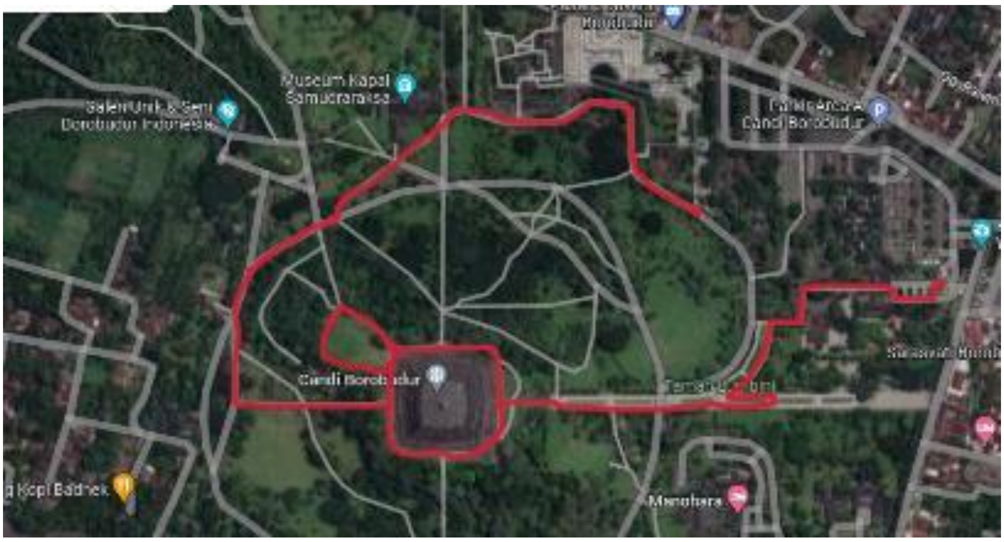
The three LL studies in the field of tourism illustrate that the forms, topics, and foci are very diverse. Each study offers unique insights. Although Diana et al. (2022) and Dong et al. (2020) explored language use in specific cultural heritage sites, none of these studies focused on understanding how a language is used and contested. Rong (2018), on the other hand, highlighted the impact of market-driven tourism on language use. However, there is a gap in understanding how different languages compete for space in specific contexts. This research will therefore contribute by delving into the LL of Borobudur Temple, an extraordinary place of both cultural and religious significance, and by analysing the intricacies of language contestation in this distinctive context. Borobudur Temple is an interesting research locus for LL review because the language contained in the signs of its public space has its own pattern and uniqueness compared to other tourist sites, especially in term of language contestation.

Thus, this research presents two research questions: (1) What are the types of public signs in the world largest Buddhist Temple? and (2) How does language contestation manifest in the public space of Borobudur temple as the world largest Buddhist temple? Based on these research questions, this study aims to explore the types of public signs with various uses, designs, and materials and to investigate the contestation of local, national, and international languages in Borobudur Temple area in relation to ideology and identity. In this paper, we show the linguistic dynamics at the world's largest Buddhist temple.

Method

This study used a descriptive qualitative study utilised by Paramarta (2022). The data was analysed based on LL theories as proposed by Landry and Bourhis (1997) and Cenoz and Gorter (2006). It was conducted at the Borobudur temple area in Magelang Regency, Central Java Province, Indonesia. The temple sits on a compound of six hectares, a vast area for multipurpose activities. Nevertheless, this study was limited to pedestrian routes as illustrated in Figure 1 because it is a busy route tourists use, so it is considered the main road in the Borobudur Temple area. The decision to choose the main road as the location for data collection was made by LL researchers, similar to what was done by Cenoz and Gorter (2006) in the city of Friesland, the Netherlands, and in Basque, Spain. In addition, Backhaus's (2006) method for determining the research locus and data collection was adopted. This approach covers several elements, such as the defined geographical limits of the research area, the chosen public signs, and the differentiation between the language and script used on these signs.

Figure 1
Map of Pedestrian Route



The red line shows the route and the data collection site. It passes through several important supporting tourist attractions in the area, such as the Elephant Cages, Samudra Raksa Museum, and Borobudur Museum. Along the route are many signs in various shapes, languages, and positions. It raises awareness of language contestation in that area which is the focus of this study. Contestation is viewed through the presentation of the language or script and its prominent position (Mulyawan et al., 2022; Paramarta et al., 2022; Shohamy, 2012). Language contestation is classified into monolingual, bilingual, and multilingual. The scripts are differentiated into Javanese script and Roman Script. Then the salience of the signs is determined from the position of the script, font size, and readability (Kress & van Leeuwen, 2021). In addition, other classifications are also applied to enhance the analysis of language contestation, such as the type of sign maker, and the top-down and bottom-up categories as suggested by Cenoz and Gorter (2006). The top-down category refers to public signs created by the government, while the bottom-up category pertains to those produced by private entities.

Instrument

In this study, observation sheets were used as an instrument during the data collection process. They were used to guide and record the results of observations with regards to the location and additional information about the placement or position of signs. A digital camera was used for photographing and capturing images of public signs in written language(s) that align with the research objectives.

Data Collection Procedure

The data comprising 299 photos of public signs were collected on 20 December 2022, through observation methods and photographic techniques. The use of photographic materials to analyse language signs in public spaces is a notable characteristic of LL studies (Yendra & Artawa, 2020). The main data were photos. The data collected by photographing signs in the Borobudur temple complex followed these criteria:

(1) The signs were located inside the temple complex, excluding the exterior.
(2) The signs contained written language.
(3) The signs were easy to read and were not damaged or faded.
(4) Each sign was counted individually, even if identical in design but placed in a different location.
(5) Signs with two sides were considered as a single sign.

Data Analysis Procedure

Data analysis was carried out using LL theories as presented by Landry and Bourhis (1997), based on a qualitative descriptive method with techniques of quantification of qualitative data and interpretive descriptions. A simple count of public signs classified into several types or categories was made. This was followed by descriptive interpretation based on presentation and position in language or script reflecting identity, culture, politics, and other issues.

Results and Discussion

The data comprising 299 public signs at Borobudur Temple were classified into 28 types, as can be seen in Table 2. The most frequent type of sign is directional, with 45 signs (15.1%). This is understandable given the expansive area of Borobudur Temple. The management must ensure that tourists can easily navigate routes, locate tourism spots, access public facilities such as toilets and prayer rooms, find other amenities, and reach exit points.

Table 2
The Types of Signs

Type	Number	Percentage (%)
Directions	45	15.1
Information	42	14.0
Plant label	35	11.7
Prohibition	27	9.0
Keeping one's distance sign	20	6.7
Garbage sorting	20	6.7
Advertisement	17	5.7
Hand washing sign	13	4.3
Rubbish bin	12	4.0
Territory sign	11	3.7
Exit	7	2.3
Evacuation route	5	1.7
Plant information	5	1.7
Building name	5	1.7
Hand sanitiser sign	4	1.3
Multipurpose signs	4	1.3
Map	4	1.3
Inscription	4	1.3
Recommendation	3	1.0
Name board	3	1.0
Meeting point	3	1.0
Announcement	2	0.7
Welcome board	2	0.7
Warning	2	0.7
Automated Teller Machine (ATM)	1	0.3
Charging station	1	0.3
Drinking fountain	1	0.3
Security check	1	0.3
Total	299	100

Information signs ranked second highest, with 42 signs (14%). The informational signs contain various necessary information for tourists (Figure 2). These signs provide information about ticket prices, emergency responses, specific rules, and detailed information about temples, such as restoration efforts made, history, facilities, and interesting facts. These types of public signs are available to provide the vital information needed by the tourists and to prevent confusion among visitors.

Figure 2

Informational Signs

Table 3 presents the examples of Top-down type signs, which dominate the total number of signs studied with a percentage of 98.7%. This means almost all public signs in the Borobudur temple area are government-issued signs. As the Indonesian government manages Borobudur through Borobudur Conservation Centre, PT Taman Wisata Candi Borobudur, Prambanan, dan Ratu Boko (TWC) and the Magelang Regency Government, it is normal that the majority of signs are in the top-down category. The top-down signs have a variety of designs, unlike most government signs. The bottom-up category is only found in four types (or 1.3%) of signs, one each for ATM, charging station, advertisement, and information (see Figure 3).

Table 3

Top-down and Bottom-up signs

Type	Number	Percentage (%)
Top-down	295	98.7
Bottom-up	4	1.3
Total	299	100.0

The design of top-down signs is not limited to rigid designs using basic colours such as green, blue, brown, or certain letter fonts. In the Borobudur temple, the designs are more colourful and attractive by using pictures, illustrations, or diagrams. A more attractive design is the advertisement type of signs. It is no different from the bottom-up type in design, the placement of the BUMN (State-Owned Enterprises) and TWC logos is a way to identify whether the government was responsible in issuing the signs. In addition, all signs located in zone 1 (the area closest to the temple site) must be in the top-down category. The government must have issued the signs, although some do not display the logo or identity of the government agency. This is because zone 1 is under the management of the Borobudur Conservation Centre.

Figure 3
Bottom-up Signs

(a) (b) (c)

The Bottom-up sign is very limited in number, the three examples in Figure 3 are located not far from the entrance after the ticket booth. Figure 3a is an ATM of J-Trust Bank. The cash withdrawal machine is provided by the private banks. The ATM machine is located strategically because it is in the inner area of Borobudur Temple and is the only ATM in the area. This ATM sign features English and Japanese languages.

Figure 3b is a charging station provided by a multinational private company in ride-hailing, Grab, as per the logo displayed the charging station. Based on its placement, the tool can be utilised by all tourists at the temple. Next, the sign in Figure 3c is produced by the Association of Indonesian Tour Guides, Magelang Regency as shown in the embedded logo. The designs of the three bottom-up signs are not alike, indicating that the government does not provide a specific design template. All designs can be made based on the creativities or standards of each company or institution. Overall, the use of script or language of public signs, both top-down and bottom-up, are not specifically regulated so the use of language varies.

The existence of language diversity can be observed via the descriptions and examples of the types of public signs at Borobudur Temple. It indicates that language contestation occurs in the public space of Borobudur Temple. The public signs found in the temple feature nine languages: Indonesian, English, Latin, Japanese, Chinese, French, Korean, German, and Arabic. These languages do not appear individually in the signs, but they appear together with one or more languages. This phenomenon is understandable because of the status of Borobudur Temple as an international tourism spot and its new additional status as a worship place for Buddhists globally.

Table 4 shows the languages used on public signs. In the monolingual category, Indonesian is dominantly used in public signs. There are 80 signs (26.8%) in the form of suggestions, hand washing, information, keeping one’s distance, evacuation routes, plant labels, prohibitions, multipurpose signs, building names, garbage sorting, announcement, territory map, directions, advertisements, exit, inscription, and territory sign. This is followed by English with 19 signs (6.4%), and the last is Javanese with only two signs (0.7%). The English monolingual signs include charging station, information, building names, directions, advertisements, and territory signs. In comparison, the monolingual Javanese signs are only in the building names and welcome board.

Table 4

Language Used on Public Signs

Type	Language	Number	%
Monolingual	Indonesian	80	26.8
	English	19	6.4
	Javanese	2	0.7
Bilingual	Indonesian-English	149	49.8
	Indonesian-Latin	13	4.3
	English-Japanese	1	0.3
Multilingual	Indonesian-English-Latin	26	8.7
	Indonesian-English-Javanese	8	2.7
	Indonesian-English-Arabic, French-Chinese-Germany-Japanese	1	0.3
	Total	299	100

The monolingual sign of widely dominant Indonesian represents a strong national identity. The management of Borobudur temple, part of a state-owned enterprise, prioritises Indonesian language. It is the *lingua franca* and official language of Indonesia. Indonesian language is also a unifying factor for the people of Indonesia who come from multicultural and multireligious background. This was stated in the Youth Pledge on 28 October 1928, long before the Indonesian state became independent. This was later confirmed through various regulations such as Article 36 of the 1945 Constitution, Law Number 24 of 2009 and Presidential Regulation Number 63 of 2019.

The monolingual sign in Indonesian has six types of prohibition signs. However, there is one prohibition sign that catches the eye because it is located very close to the road, it uses attractive designs and colours, along with large font sizes. The sign is located in front of an elephant house, which says "*Makanan kami sudah diatur secara khusus mohon tidak beri kami makanan dari luar. Terima kasih"* (our meal has been specially arranged, please don't give us food from outside. Thank you). The sign is a prohibition to feed the elephants by using indirect language. It is not found on the English sign, whether monolingual, bilingual or multilingual signs. English public signs are observed to be more direct in nature, for example, "no smoking" or "no entry" due to cultural reasons. This is in accordance with Hall's (1976) cultural theory of high and low context that western culture is more direct than Asian culture (Hornikx & Le Pair, 2007; Mulyawan et al., 2022). In this case, Indonesian signs apply the high context principle and English signs use the low context principle. In Indonesian, prohibition signs employ an implied communication style, requiring readers to decode the message to understand its full meaning. In contrast, prohibition signs in English are explicit, concise, and brief.

Figure 4

Indonesian Monolingual Signs

The appearance of English language as one of the languages in the monolingual sign can be explained by the reputation of the Borobudur temple as an international tourism destination. It openly welcomes international tourists. The sign also presents an international atmosphere as English is a very common language used for cross-country communication. English is the language of globalisation, so the sign is designed for tourists who understand English but do not know Indonesian.

Figure 5

Advertisements that Feature Only English or Indonesian Language

The majority of people in around the world generally recognise the status of English as an international language, with its embedded symbols of prestige, high economic standing, modernity, high technology, and a global perspective (Mulyawan et al., 2022; Rong, 2018; Sheng & Buchanan, 2019; Yan, 2019). This perspective can also be seen in the public sign at Borobudur Temple. In Figure 5, there are two monolingual signs of advertisements; the left is in English, and the right is in Indonesian. In terms of material, the English advertisement uses an acrylic board, so it looks elegant, neat, and luxurious. Such design choices intrinsically targeted the intended audience, foreign tourists, who are perceived as more modern and possess greater financial means. This necessitates the adaptation of advertising signage to capture their attention. On the other hand, the Indonesian advertisement use a banner cloth stretched over several pieces of bamboo, which looks simpler. This illustrates that English holds a higher prestige than Indonesian in advertising signs.

The placement of these advertisements is also different; most English advertisements are firmly affixed to walls in strategic locations so that they seem exclusive, while those in Indonesian are leaning against or standing under a tree. Moreover, in terms of content, English advertisements tend to offer something with a higher economic value or exclusive experiences such as special photoshoot packages, extraordinary breakfast or evening meals, and cultural performances such as the Ramayana Ballet. In contrast, Indonesian advertisements promote traditional activities such as horse-drawn carriage rides and feeding of elephants. Hence, the differences in the two types of monolingual signs strengthen English with all its prestige and the Indonesian language represents an Indonesian identity. Purnawati et al. (2022) argue that the use of Indonesian in tourist locations reflects cultural diversity oriented towards affirming the Indonesian identity rather than a specific ethnicity. In contrast, English gains prestige and popularity due to tourism activities (Paramarta, 2022).

The last monolingual sign is Javanese. The use of Javanese in monolingual signs indicates an appreciation for local identity, even though the number is very small (0.7% of 299 signs). Borobudur Temple is located in Magelang, Central Java, at the heart of the Java Island and Javanese society. The lack of Javanese-only signs can be explained by the policy of prioritising the Indonesian language in public spaces. Nevertheless, the policy may threaten the existence of local cultural identity represented by Javanese language in the public space as a result of the national language and the dominance of English as an international language (Sakhiyya & Martin-Anatias, 2023).

Furthermore, only one Javanese monolingual sign is written using Javanese script, commonly called *Carakan* or *Hanacaraka*. It is a welcome board in Javanese *Sugeng Rawuh*, written in the *Hanacaraka* script as a companion to the Roman script above it (see Figure 6). The board hangs at the front of the *pendopo* (gazebo-like building) near the ticket counter. It is made of wood, as befits a traditional Javanese ornament. The simple vernacular design fits perfectly with the *pendopo*, reinforcing the impression of traditional Javanese identity.

With regards to the bilingual signs, the combination of Indonesian and English is the most dominant, reaching 149 signs (49.8%), followed by the combination of Indonesian and Latin with 13 signs (4.3%). Lastly, there is only one English and Japanese combination (0.3%) to point out a private bank ATM. The Indonesian and English bilinguals are found in almost all types of signs, including hand washing, information board, hand sanitising, keeping one's distance, evacuation routes, prohibitions, multipurpose signs, security checks, garbage sorting, directions, exits, inscriptions, welcoming boards, territory signs, meeting points, rubbish bins, and warnings.

Figure 6
Javanese Welcome Board

Of all the Indonesian and English bilingual signs, quite many of them are signs related to COVID-19. There are 32 signs: 11 hand washing, 4 hand sanitising, and 17 keeping one's distance signs. This is followed by direction with 29 signs, information 24 signs, and prohibition 21 signs. Examples of these signs are presented in Figure 7.

Figure 7
Indonesian and English Bilingual Signs

The COVID-19 outbreak has greatly affected many aspects of human lives, including the use of public space signs. The management of tourist attractions like the Borobudur temple was very concerned about these health issues to ensure the safety of all visitors. These signs are used as a form of management of public health, even when cases of COVID-19 had greatly decreased and there were almost no new cases at the time of data collection. The use of bilingual signs in Indonesian and English is intended to make all visitors or tourists understand the contents of these signs and in turn, to be more vigilant and to comply with rules to minimise COVID-19 transmission.

Bilingual signs with the composition of Indonesian and Latin appear only on public signs related to plants which consist of plant information and plant labels. The presence of Latin in a tourist spot, particularly in a Buddhist temple, is a bit strange. Latin is not a religious language in Buddhism. However, the religious domain has been identified as an important domain for language maintenance (Sakhiyya & Martin-Anatias, 2023). An example would be Arabic, which is perceived to be a prestigious language among the adherents of Islam because of its religious significance (Cenoz & Gorter, 2006; Coluzzi & Kitade, 2015).

However, the appearance of the Latin language on the public signs of the Borobudur temple has very little to do with religious language or cultural identity. Latin is used to represent the scientific names of plants in the temple area. Plants generally have scientific names taken from Latin which are used universally. The placement of plant information and labels aims to educate tourists or visitors about plants in that area.

Public signs at the Borobudur temple do not only have signs that use one or two languages in a single sign. Some use more than two languages, commonly known as a multilingual sign. There are three groups of multilingual signs. First, the composition of Indonesian, English, and Latin, the most frequently observed with 26 signs (8.7%). The second group is a combination of Indonesian, English, and Javanese, with 8 signs (2.7%). The last group consists of seven languages: Indonesian, English, Arabic, French, Chinese, German, and Japanese, with only one sign seen at the drinking fountain.

The 26 signs on the multilingual sign in Indonesian, English, and Latin only exist on one type of sign, the plant label. The plant label sign is erected in front of the referred plant as seen in Figure 8. It listed three languages and is made of wood and cloth with a gradient green background design. The Indonesian and Latin refer to the same entity, the plant seed whereas the English complements the sign with the phrase "scan me" below the barcode, which can be scanned with a mobile phone to obtain more information about the plants.

Figure 8

A Multilingual Sign of a Plant Label

Furthermore, the second group of multilingual sign consists of Indonesian, English, and Javanese. The multilingual sign is present in building name signs, name boards, territory maps, advertisements, and territory signs. Based on the examples of data presented, Indonesian is a salient language. Salience is determined by the position of the script, font size, and readability (Kress & van Leeuwen, 2021). The salience of Indonesian does not only apply to multilingual signs but also to bilingual signs (see Figures 7 and 9). Indonesian has always been positioned above other languages, both Javanese and foreign languages. On other signs where Indonesian is not placed at the very top, the font size for the language is bigger and more prominent.

Figure 9

The Indonesian-English-Javanese Multilingual Sign

The priority and use of the Indonesian language is contained in President Regulation number 63 of 2019 in section twelve, specifically articles 32 to 34. Indonesian language must be featured in public spaces, while local languages or foreign languages can be used as a complement. Therefore, the domination of the Indonesian language in all types of signs, whether monolingual, bilingual, or multilingual, is a form of consistency in enforcing the presidential regulation.

The opposite condition occurs in the Javanese, which is the local language in the area where the Borobudur temple stands. The Javanese language is not present much on the public signs of the Borobudur temple while Indonesian and foreign languages are more prominent. The Javanese language, with its script, is always displayed at the end in bilingual or multilingual signs. As a matter of fact, it is always below the foreign languages. The marginalisation of local languages is becoming increasingly conspicuous, not only in the case of Javanese but also other local languages in Indonesia. Similarly, Permanadeli et al.'s (2016) study in five major cities in Indonesia also the limited presence of local languages in public space, with their dominant usage confined to familial settings. Similarly, the Balinese language is gradually being marginalised by the intensive use of English and Indonesian (Artawa, 2016; Artawa & Sartini, 2019).

The minimal presence of the Javanese language in each type of sign illustrates the sidelining of Javanese. The absence of specific regulations governing the use of Javanese language in public signs makes the position of the language even more marginalised and precarious. This is observed even though there exist several local regulations concerning the use of Javanese language, literature, and script, such as Regional Regulation Number 9 of 2012 and Governor Regulation Number 55 of 2014, which allude to the use of Javanese in public spaces.

The regional regulation only mentions that the use of the Indonesian language accompanied by Javanese script for naming public places and buildings is encouraged. The governor's regulation is further clarified by suggesting that Javanese script is included as a companion to the Indonesian language on street names/identities, Regional and Regency/City Government offices, and other agencies in Central Java. These regulations only bind government agencies and do not apply to the private sector. Even so, it has yet to be implemented fully and consistently.

Another interesting matter to discuss is that the Borobudur temple is a very famous Buddhist temple and a valuable representation of Buddhist architecture (Purwaningsih et al., 2021). Still, no public sign uses the Buddhist religious language, such as Pali, Sanskrit, or Tibetan. There are also no public signs representing elements of Buddhist philosophy. Even so, it does not mean that Buddhists may not worship at the Borobudur temple or there are no spiritual activities. Buddhists often carry out those activities there, but in terms of the LL, the Borobudur temple area has not yet represented elements of Buddhist identity even though the government has designated it as the centre of worship for world Buddhists.

Conclusion

Based on the studies, it can be concluded that the language contestation in Borobudur temple involves local, national, and international languages. The dominant language appearing on the public signs of Borobudur temple is Indonesian, which is present in almost all types of signs. It represents a strong national identity, being the language of unity and the *lingua franca* across Indonesia. English, as the second most prevalent language, aligns with Borobudur temple's status as an international tourist destination. The local identity is minimally represented by the Javanese language and script on some public signs, with its position being marginalised by the dominance of national and international languages.

This study provides a significant contribution to language contestation research and a perspective on multilingualism in the context of a significant cultural and religious site. It reveals the interplay between local, national, and international languages, focusing on how language use in public signs reflects broader socio-political and cultural identities. It enriches the understanding of language use in public spaces, particularly in terms of identity and cultural representation. However, the scope is limited to a single cultural site which may not fully represent the broader LL of the region, and this study only focuses on language contestation. Therefore, further research could explore other culturally significant sites for a more comprehensive understanding of LLs in varied contexts. In addition, incorporating interviews with locals and tourists can help to gain deeper insights into the perceptions and the impact of the linguistic choices. Conducting language policy studies in cultural and religious sites can be one of the means to observe the efforts made in the preservation of local languages and religious ideology and to study the marginalisation of the local language and religious ideology of the ethnic minority.

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PUZZLINGUISTICS: A TYPOLOGY OF LUDIC LANGUAGE BASED CLUES FOR IN-GAME PUZZLES IN ROLE-PLAYING GAMES

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ABSTRACT

Hundreds of role-playing video games have been produced since the creation of the first title of the genre, *Dungeons and Dragons*, in 1974. These titles incorporate one common feature in the genre, puzzle. In designing a puzzle which primarily revolves around its major element which is clue design, language contributes to the playfulness and playability of the game itself. This study attempts to explore the roles of ludic language in designing clues with regards to the user's functions of the games. The study employed Crystal's ludic language, Danesi's puzzling language, Caillois' *ludus* theory, Huizinga's play function, and Aarseth's user functions on twenty-three role playing video games or commonly abbreviated as RPGs and their sub-genres. The study further proposes a typology of clues. This typology comprises clues which are orbital, conditional, collocative, referential, indicative, reflective, reversal, and signalling. Game developers could employ the results of this study as a consideration in designing puzzles in video games especially role-playing video game genres.

Keywords: ludic language; puzzle; clues; role-playing games; user's functions

Introduction

Puzzles, as Danesi (2002) suggests, have always been integral to adventures. From the mythic wisdom-seeking riddle contest between Odin and Vafthrudnir to the life-and-death puzzles Alice must solve in Carroll's Alice's Adventures in Wonderland, puzzles play a significant role in shaping the character lores. In role-playing games, puzzles assume a central role, differing only in the interactive nature of games.

The interactivity of video games prompts designers to consider what Caillois (2001) terms as *ludus* or structured play, and what Huizinga (2014) refers to as the play function. The former dictates how a game is to be played, while the latter governs playability and the playfulness of a game. Therefore, all elements of a game, including puzzles, must adhere to these considerations. When it comes to puzzles where language serves as both a medium of instruction and storytelling – functioning as both a mechanic and a narrative – the design of in-game puzzles must address these dual concerns. The following riddle, taken from Ubisoft's Assassin's Creed: Valhalla, serves as an example to illustrate this point:

Havi:	*You are not drinking, Gunlodr.*
Gunlodr:	*I do not care. Drink is the heron that steals away one's memory.*
Havi:	*Some would say it frees the spirit of worry.*
Gunlodr:	*We call those people drunks.*
Havi:	*I see your wit as sharp as your intelligence*
Gunlodr:	*Wit? I was simply stating the truth.*
Havi:	*Let us play a game. Ask me some riddles. I will see if I can guess them.*
Gunlodr:	*I enjoy a good riddle. How did you know?*
Havi:	*All great minds enjoy riddles. You fashion order from disorder, sense from nonsense.*
Gunlodr:	*You have me at that. Very well, I will play.*
Havi:	*Give me an easy one to begin.*
Gunlodr:	*Would that I had now what I had yesterday. Find out what that was. Mankind it mars, speech it hinders, yet speech will it inspire.*
Player:	*a. Courage* *b. Ale* *c. Gold* *d. Can you repeat the riddle?*

The puzzle is designed to allow players to decipher the Gunlodr riddles. The puzzle is constructed by providing clues and distractions. The clues are in the form of a pre-riddle dialogue. The dialogue preceding the riddle revolves around Gunlodr's dislike of alcohol. On the other hand, the distractions take the shape of choice a, b, and c that share similarities in the implied meaning. The three choices are what defines Norsemen or the Vikings and the cultural background of the story. These choices are morphosemantically related to "mar" and "hinder" with "inspire" as the distraction. The players have to consider these three words. Players might also think that a dialogue about drinking alcohol is a distraction from which they will not select the choice of an “ale”. However, if the players pay attention to the words “mar”, “hinder”, and “speech” and relate them with the clues, they will select “ale”, the correct answer.

The example of Gunlodr’s riddle signifies how an in-game language use has to consider the players by treating any lingual elements as a mechanic and as a narrative of the game. The fact that the riddle has an option of Gunlodr’s repeating the riddle and a level of difficulty, as implied by Havi’s saying to give him the easiest one to start with, also points out the mechanical aspect of in-game language use in the context of puzzle design. Studies on in-game language use which address the issues of puzzle design with concerns to the roles of lingual elements in the construction of clues were undertaken. Previous studies on the roles of language in puzzle design revolve around puzzle typologies and their corresponding elements (Danesi 2002; Shokeen et al. 2020) and puzzle for language learning (Avinash 2016; Levine et al., 2012). On the other hand, puzzles in video games are studied around their lucidity (Liang 2012), situatedness of speech (Gorniak & Roy 2005), visualisation (Nguyen et al., 2021), clue system from player’s behaviour perspectives (Wauck & Fu 2017), and the impacts of clues in educational games (O’Rourke et al., 2014).

Departing from the gap left by the previous studies, namely, puzzle design with the focus on clues from the perspectives of language play, *ludus*, and user functions, this study attempts to construct a typology of clues. To construct the typology, the theory of ludic language by Crystal (1998), puzzle language by Danesi (2002), and user’s functions by Aarseth (1997) were adopted to serve as foundation bases.

Ludic Language, Puzzles, and User’s Functions in Role Playing Games

Role-playing games (RPGs) are inherently story-driven genres, where narratives profoundly influence gameplay. Fernández-Vara (2011) introduces the concept of indexical storytelling in RPGs, emphasising the integration of verbal and non-verbal elements (visual, audial, and operative) to not only convey the story to players but also engage them actively in navigating the narrative. Puzzles serve as crucial elements of this engagement. Through this type of storytelling, every object is treated as a device that tells a particular narrative. This narrative treatment, which Prakoso et al. (2023) term as “pygmalionisation”, requires gamers to carefully explore the game world when it comes to solving the puzzles.

In puzzle design, it is essential to structure puzzles to generate play functions, as outlined by Huizinga (2014), where playfulness and playability are central concerns. Aarseth (1997) categorises the delivery of playfulness and playability as user functions, encompassing interpretive, explorative, and configurative functions. These functions with regards to puzzles are tied in with quests. Howard (2022) indicates that puzzles are inseparable from quests implying that quest types might define and signify the puzzles. Quests focusing on world exploration might have different puzzles from quests emphasising on character immersion. This further implies that ludic language applied on the puzzles might possess different characteristics.

Ludic language, as defined by Crystal (1998), focuses on signifying the ludic values of language within the context of puzzles. It defines the game by establishing rules through lingual elements. Therefore, the lingual elements of puzzles must incorporate user functions to define and signify playfulness and playability, giving each puzzle distinctive challenges via the design of clues. In the context of quests, clues of each puzzle might be dependent not only on the quests but also on the sub-genre of RPGs. The distinctiveness resulting from different fashions of playing games and narrative immersion are expected to generate what Fjellestad (2021) calls ludic impulse. Through these impulses, different experiences in dealing with the puzzles are expected to occur.

Clues in RPGs, according to Barton and Stacks (2019), guide players to complete games through in-game stories, printed manuals, or intertextual references. In-game story clues work mechanically and narratively, printed manuals offer explicit details, and intertextual references establish connections with narratives from other games. The first and third types of clues are laden with distractions to enhance ludic engagement and replayability, while the second type, due to its explicitness, tends to minimise distractions.

Ludic engagement in video games, as studied by Lindley (2004), is connected to immersion of the gamers into the game world. Thus, to ensure that the engagement is continuously preserved, flow, a term introduced by Csikszentmihalyi (2014), has to be managed in order to make the games neither too easy nor too hard. The same principle also applies to the design of clues.

Methodology

The data of this qualitative study are in the forms of verbal and non-verbal information as captured from in-game puzzles. Non-verbal information encompasses visual, audial, and operative elements of the information perceived from the analysed puzzles. The data were taken from RPGs and their sub-genres (Table 1).

Table 1
Data Sources

Game Titles	Publishers/Developers	Sub-genres of RPGs
Assassin's Creed: Valhalla	Ubisoft	Action RPG
Breath of Fire IV	Capcom	RPG
Devil May Cry 3: Dante's Awakening	Capcom	Action RPG
Dragon Quest XI	Square Enix	JRPG
Final Fantasy VIII	Square Enix	RPG
Final Fantasy IX	Square Enix	RPG
Final Fantasy X-2	Square Enix	RPG
Final Fantasy XVI	Square Enix	Action RPG
Middle-Earth: Shadow of War	Warner Bros Interactive/Monolith	Action RPG
Metal Gear Solid	Konami	Action RPG

Metal Gear Solid 3: Snake Eater	Konami	Action RPG
Pokémon Arceus	Nintendo/Game Freak	RPG
Star Ocean: Second Story	Square Enix/Tri-Ace	RPG
Suikoden	Konami	RPG
Suikoden II	Konami	RPG
Suikoden III	Konami	RPG
Suikoden IV	Konami	RPG
Suikoden V	Konami	RPG
Tales of Arise	Bandai Namco	RPG
Thousand Arms	Atlus/Red Company	RPG
Valkyrie Profile	Square Enix/Tri-Ace	Action RPG
Wild Arms 2nd Ignition	Prokion/Media Vision/Sony Interactive Entertainment	RPG
Xenogears	Square	RPG

The data sources on Table 1 were selected based on puzzles which are featured in character immersion, exploration, or equipment finding tasks. The first criterion refers to puzzles that will immerse the gamers into the narratives through their interactions between the controlled characters with other characters who occasionally are hidden in the game world. The second criterion refers to the emphasis of directing gamers to the world setting of the games through puzzles. The third criterion refers to puzzles, if solved, will grant the gamers new and powerful equipment that might assist the gamers in engaging the games. It was expected that the typology would be constructed in a comprehensive fashion due to the various characteristics of the clues. The data acquired were analysed by applying the theory from Spradley (2016). Four steps were taken to analyse the data.

The first step was domain analysis. In this step, puzzling language theory by Danesi (2002) was implemented to reveal which ones belong to puzzles and which do not. Once completed, the second step known as taxonomic analysis commenced. In this step, the theory of user's functions by Aarseth (1997) was applied to reveal whether the puzzles along with the clues belonged to interpretive, explorative, or configurative functions. Componential analysis proceeded next. In this step, the theory of ludic language by Crystal (1998) and *ludus* of Caillois (2001) were implemented to reveal the structurisation of clues as a part of the puzzles. In the last step, finding cultural theme, a typology of clues was presented based on the findings of the previous steps. To indicate the analytical aspects of the typology, game premises were employed. The premises incorporated logical relationships of two objects called "a" and "b". Their relationships were premised based on the types of clues found. Through the premises, logics behind the naming of each clue type was expected to generate more comprehension.

Findings

The findings indicate that there are eight types of clues, namely, orbital, conditional, collocative, referential, indicative, reflective, reversal, and signalling. The differences that set these eight clues apart are the premise of the ludic mechanics, further illustrating how the clues operate (Table 2).

Table 2
Clue Premises

Clue Types	Premises	Explanations	User Functions
Orbital	a is there for b	Relying on core and satellite relationship between words appearing on the puzzles	interpretive
Conditional	if a, then b	Relying on logical conditional expressions and consequences	configurative
Collocative	with a comes b	Emphasising on the pairing of verbal and non-verbal expressions	explorative
Referential	a refers to b	Relying on employing hidden in-game references in solving the puzzles	explorative
Indicative	a is a until it becomes b	Emphasising on the use of game mechanics as a clue delivered through verbal expressions	configurative
Reflective	a can be changed with b	Relying on connotation and denotation in tandem with particular game mechanics of the game	explorative
Reversal	a comes after b	Relying on reversed logic	configurative
Signaling	a signals b what to do	Emphasising on the use of narrative as a cue	interpretive

Through the premises, the *ludus* or structured play is built, further indicating that ludic language is of in-game use. The use of ludic language is primarily perceived from how lingual expressions are made in tandem with game mechanics to establish a distinctive structure differentiating it from the other structures of puzzle. The following sub sections will elaborate on each clue in detail.

Clue Typology

The existence of a clue in puzzle design, as suggested by Schell (2008), is a required condition to cognitively incite the minds of the players that the puzzles are solvable. Therefore, any forms of clues, either in verbal or non-verbal expressions, are a must-have companion for any puzzles in video games. The details of each type are explained. Table 3 shows the orbital clues in Bandai Namco's tales of arise.

Orbital

Orbital clues are clues which operate under the premise of "a is there for b". These clues indicate that there are words functioning as satellite and a word functioning as the core to which the satellite orbits. The order of the words follows the rule of general to specific relationship.

Table 3
Orbital Clues in Bandai Namco's Tales of Arise

Quest Name	Puzzle	Object	Clues	Satellites	Core	User Function
The Mysterious Pair	Finding a hidden instrument somewhere in the game world	a place	Just beyond the hovels in a land shrouded by sand and stone	Sand Stone	Hovel	Explorative
			The northernmost reaches of a wasteland to the north of an abandoned village	Northernmost Wasteland	Abandoned Village	
			It lies dormant at the back of a narrow road to the west, whereupon an ancient tower stands	West Ancient Tower	Narrow Road	

The quest asks the players to locate an item somewhere in the world called Dahna. Three clues are given, and each clue has two satellites and one core. When the cores of each clue are combined, a structure of meaning is found. Hovel, besides denoting an establishment with a simple construction, also refers to a building with conical shape. This is a visual clue to the place in the wasteland called Iglia Wastes of which the map is conically shaped. Comprehending these clues, the players could start exploring the area to find the hidden instrument.

In its simplest form, orbital clues would usually have visual assistance that functions as core. Many RPG titles like Square's *Xenogears*, Square Enix's *Final Fantasy XVI,* Konami's *Metal Gear Solid 3: Snake Eater*, Prokion's *Wild Arms 2nd Ignition*, and Tri Ace's *Star Ocean 2nd Story* employ this orbital form. This simplest form of orbital tends to be employed when the reward of the puzzle is deemed necessary for the gamers in order to make progress in or to ease them into the games. In Capcom's *Breath of Fire IV*, to get Grass Dragon or Cho Ryong, gamers have to follow a shining bird in a plain (see Figure 1). The game automatically displays the shining bird as the gamers enter the plain. The only distractor generated by the puzzle is the fact that it is a bird, the gamers would have to keep a distance from the bird or else it will fly away.

Figure 1

Orbital Clues with Visual Assistance in Capcom's Breath of Fire IV

Conditional

Conditional clues operate on the "if a, then b" basis either between verbal or non-verbal expressions. The clues of this nature are rather scarce of information. The scarcity of the information indicates that the distractors might be fewer to none compared to orbital, but the scarcity compels the players to thoughtfully decipher the limitedly expressed clues. Conditional clues are formulaically found on boss battle sections that demand a wit from the gamers to beat them in creative ways. One of the examples is Capcom's *Devil May Cry 3: Dante's Awakening*. In one of the boss battles, gamers must battle a Greek mythological hound, Cerberus. If the gamers comprehend the background myth of the hound as a hell gate keeper, they would focus on casting ice magic. Doing so, gamers will be rewarded with a weapon going by the same name of Hades' hound. Another example is from Square Enix's *Final Fantasy IX* (see Table 4).

Table 4

Conditional Clue in Final Fantasy IX

Quest Objective	Clues				User Function
	Verbal	Visual	Audial	Operative	
Defeating a	The name	Tree	Intimidating	Soulcage's	Configurative

tree monster called Soulcage	'Soulcage'	with a skull		undead or zombie summoning ability Soulcage's instant death ability

As seen from Table 4, the clues revolve around "death". From the onomastic verbal clue, "soulcage" suggests the necessity to "uncage" the soul, death. The visual clues strengthen the "death" through the depiction of a skull. The intimidating audial element further supports the "death" nuance. Operative elements even further deliver the "death" nuance through "undead summoning" and "instant death" abilities. Comprehending this "death", players are expected to counter "death" with its opposing force, life. Thus, the decision the players should take is to cast life related spells like "cure" or using life related items like "elixir" or directly use a spell by the name "life".

This if-then operation requires the players to perform a configuration through various in-game accesses like changing spells, changing weapons, and many other mechanical changes. Therefore, conditional clues are likely to intratextually link themselves to onomastic elements of the games. These elements could be found in characters, spells, abilities, weapons, armours, places, and any other in-game objects.

Collocative

Collocative clues operate under the premise of "with a comes b", which emphasises a pairing presence. This type of presence indicates that the clues tend to minimise the options of correct answers. The following example from Monolith's *Middle-Earth: Shadow of War* might help to comprehend collocative clues:

Table 5

Collocative Clues in Middle-Earth: Shadow of War

Puzzle	Choices
In the land of Mordor where the _______ lie We bear our banners aloft, boots like _____ Our ______ quick, our countenance dire. For who in this dark, dream-hunted ___ dares Resist the righteous flame of _______ And ____ themselves to despair and	Shadows/Doom/Cadence/Wrath/Drums/Land

death?

As seen from Table 5, the correct answers are limited under the premise "with A comes B" projected through grammatical aspects, causal consequences, and thematic alignment. The example for the first is seen from *In the land of Mordor, where the "shadows" lie*, the second from *We bear our banners aloft, boots* (stomps that sound) *like "drums"*, and the third from the war theme as seen from *Resist the righteous flame of "wrath"*.

As indicated from Table 6, the theme is the primary focus of the puzzle, followed by grammar and causality. It indicates that the puzzle attempts to immerse the players to the narrative of the game. The fact that the game is an extended lore of Tolkien's world has hinted to the players that the theme of the game will not deviate from the theme of war among races. Capturing this theme will both assist the players in solving the puzzles and immerse them in the lore. However, since the user function of collocative puzzles is likely to be interpretive, they would be designed with the players' general knowledge in mind, meaning that they can solve the puzzles through logical pairing such as general grammatical and writing system.

Table 6

With A Comes B Breakdown

Puzzle	with A comes B			User Function
	Grammar	Causality	Theme	
In the land of Mordor where the _______ lie	√	×	×	Interpretive
We bear our banners aloft, boots like ______	×	√	×	
Our _______ quick, our countenance dire.	×	×	√	
For who in this dark, dream-hunted ____ dares	√	×	×	
Resist the righteous flame of ________	×	×	√	
And _____ themselves to despair and death?	×	×	√	

Figure 2 shows how Qwilfish evolves into Overqwil in Pokémon Arceus.

Collocative clues are likely to occur in the form of wordplays. In Game Freak's *Pokémon Arceus*, for example, where the strategy of evolving monsters into their stronger forms is a must, gamers have to pay attention to particular conditions in order to make the evolution happen. One of the monsters that the gamers need to evolve is a puffer fish, such as Qwilfish in the Pokémon game. "Qwil" is a wordplay of "quill" that might refer to "feather" or "sharp spines". The meaning of "quill" is linked to the image of the fish Pokémon whose body is covered with sharp spines. The "feather" meaning of "quill" acts as an obstacle while the "sharp spines" functions as a hint. The first meaning is a distractor for the correct associative meaning which is the second one. This meaning has an association with 'barbed' that associatively signifies spikes. “Barrage” and “twenty” are visually associated with the numerous spikes protruded from the body. If these two associative meaning, “sharp spines” and “number of spikes” are connected, the gamers would be able to decode how to evolve Qwilfish.

Figure 2
Qwilfish Evolves Into Overqwil in Pokémon Arceus

Referential

Referential clues operate under the premise of “a refers to b”. As the name and the premises suggest, the clues focus on employing references. Thus, the puzzles might be easily solved when the players fathom what the puzzles refer to. The references most of the time point to in-game objects in the games played. The example in Table 7 on Square Enix’s *Final Fantasy VIII*’s painting puzzle might better illustrate how the clues work.

Table 7
Referential Clues in Final Fantasy VIII

Puzzle	Referenced Clues	Explored Clues	User Function
Guessing the title of a painting	A clock with clock hands pointing on VIII, IV, and VI	IGNUS (fire) INANDANTIA (flood) IUDICIUM (judgement) INTERVIGILIUM (sleep) VENUS (love) VIATOR (messenger) VIGIL (watchman) VIVIDARIUM (garden) INAUDAX (cowardice) XYSTUS (tree-lined road)	Explorative Interpretive

	XERAMPELINAE (red clothes)
	XIPHIAS (swordfish)

The puzzle asks the players about the title of a mysterious painting. The players have to traverse the gallery where the untitled painting is housed (see Figure 3). They will encounter twelve paintings with titles. The players have to examine the paintings to reveal the titles and from the twelve titles, the players have to pair the correct names to generate the title of the untitled painting. If the players heed his or her surrounding in the exploration, they will spot a clock whose hour, minute and second hands pointing at VIII, IV, and VI respectively. This is the referenced clue to solving the painting puzzle. Based on the clock hands, the players have to select Latin words containing VIII, IV, and VI and those refer to the order of the painting titles namely VIVIDARIUM, INTERVIGILIUM, and VIATOR.

Figure 3

In the Garden Sleeps a Messenger

Referential clues also operate configuratively, which means the players need to do some in-game adjustments to solve the puzzles. When configurative user function is implemented, explorative and interpretive user functions would integrally function along with the configurative user function.

Indicative

Indicative clues operate under the premise of 'a is a until it becomes b'. In indicative clues, implicit mechanical instructions to configuratively perform in-game action sequences are given to the players. If the players succeed in digesting the implicit clues, they would be able to solve the puzzles. The challenge these clues offer come from the mechanical instructions implicitly delivered through narrative or verbal expressions. Table 8 gives an example from Konami's *Metal Gear Solid* might help shed light on how these clues operate (see Figure 4).

Table 8

Indicative Clues in Metal Gear Solid

Clues (the Player's Past Actions)	Clues (the Player's Memory Card)	User Functions
Now let me read your mind. No perhaps I should say your past. You are extremely careful of traps. You are either very cautious or you are a coward	Still don't believe me? Now I will read deeply into your soul. Ah. I can see into your mind. So you like (Suikoden/Azure Dreams/other Konami games) You like Castlevania, don't you? I see that you enjoy Konami games.	Interpretive Configurative

Figure 4

Psycho Mantis Could Read the Saved Game File on The Memory Card

The character who utters the lines is a psychokinesis and telepathy practitioner called Psycho Mantis. The players cannot defeat him with a normal method like shooting or punching as he could read every move that Snake performs. This is hinted from the clues as seen on Table 8. The first clue deals with the fact that Psycho Mantis is designed with the ability to track the player's actions in the game. Thus, he could know whether the players play the game aggressively or tactically from which the lines of clues appear. After analysing how the players play the game, he goes further in checking what games are saved in the memory card plugged into the Playstation system. If games from Konami are within the card, he would utter the titles. These clues indicate that the players have to do something with the game mechanics or the system to win the battle.

Reflective

Reflective clues operate on the basis of "a can be changed with b". These clues combine explicit and implicit hints to suggest the players that either refer to a denotative or a connotative clue. Comprehending the denotative out of the connotative or vice versa will compel the players to exercise explorative and configurative user functions e.g. traversing the game world and changing equipment. Table 9 shows an example from Square Enix's *Dragon Quest XI* shows how reflective clues work.

Table 9

Reflective Clues in Dragon Quest XI

Quest Name	Objective	Clues	Connotative	Denotative	Answers	User Functions
A Right Riddle	Equipping the right weapons	What sort of single-handed sword sounds like you pilfer it?	Pilfer	Single-handed sword	Steel Broad-sword (steel sounds like steal which is synonym for pilfer)	Explorative
		This one's like a short-tempered cactiball – it's particularly prickly! What sort of weapon sounds like it's made to frustrate something that's flagging?	Flagging Frustrate	Cactiball	Fizzle Foil (fizzle is correspo-ndding with flagging and frustrate with foil)	

As seen from Table 9, spotting expressions which fall into connotative and denotative ones will lead players to comprehend the puzzle. In the first puzzle, the denotative clue is a single-handed sword. To perceive the sword as denotative comes from the fact that the puzzle instructs the players to find weapons and equip them. Since there are numerous single-handed sword types, the players are required to decipher what sword it is by directing their attention to the remaining expressions. The only expression that stands out in the sentence is pilfer. The players have to decipher them by addressing them in the fashion of implied meaning as suggested from 'sounds like'. Thus, the correct answer is "pilfer" since "steel" in steel broadsword sounds like steal. Similar process of deciphering clues occurs in the second puzzle with a difference being where to find the weapon. This is hinted by the mention of "cactiball", a cactus like monster nesting in a desert area.

Recognising this, the players have to traverse the desert area in the game to locate the weapon.

Reversal

Reversal clues operate under the premise of “a comes after b”, meaning that causality is reversed through implication or inference. These clues would prompt the players to think in a reversal logic–effect-cause relationship.

Konami’s *Suikoden* series are famous for runes–Nordic alphabets–attached to characters, where the characters attached with the runes could cast spells, enhance their skills, or equip themselves with unique abilities. One of those runes is called Waking Rune. Characters attached with this rune will fall asleep when the battle starts. They need to be damaged by enemy’s strikes to wake them up. Woken up, they will go into the stats of berserk, which increase the attack stats of the characters. The reversal comes from the fact that “waking” implies the presence of preceding action, sleeping. That the series have a rune called Sleep from which sleeping effect can be evoked signifies the reversal logic Waking Rune implies. The fact that the characters of Sid, Juan, and Ornan have a sleepy look also suggests a causal assumption that they carry a Waking Rune to prevent them from sleeping, which is a desynchronised fact when the battles take place.

Reversal logic also employs general logical reasoning in the world which shows desynchronicity within the gaming or narrative reasoning. The following example from Atlus’ *Thousand Arms* illustrates the statement:

Palma : Can you make a grass whistle, Meiss?
Meis : a. Of course! Check it out!
b. Nah, that’s for kids!
Palma : (response to choice a) Eww! You put grass in your mouth! Don’t you think it’s unsanitary?
(response to choice b) I’m glad to hear that. Nobody in their right mind would do something unsanitary.

The game features a dating simulation where players, through the hero character Meiss, could date several girls in the game, each with distinct personality traits. Players must understand these traits while simultaneously being nice and romantic to increase intimacy levels. Choice “a” suggests a romantic response, making it more likely to attract players. In contrast, choice “b” evokes arrogance and a less romantic tone, making it less appealing. However, if players grasp that intimacy must be built based on the girl's personality, they may choose the less romantic option of choice “b”. Selecting this option leads to a positive response from Palma, as it demonstrates that Meiss values cleanliness, aligning with her personality. The game's logic for romancing a girl is generally reversed.

Signaling

The premise of signalling is “a signals b what to do”. Signalling is related to cueing, where timing plays the most significant role in deciding the correct response. These puzzles are mostly found in games with Quick Time Event (QTE), where quick thinking is required to execute the most correct response. One of the examples of QTEs can be found from Konami’s *Suikoden* series’ one-on-one duel. To win the duel, the players have to guess the opponent’s upcoming moves by deciphering verbal signals expressed by the opponents (see Figure 5). Table 10 gives an example from Konami’s *Suikoden V* might help shed light on how these clues operate.

Table 10
Signaling Clues in Suikoden V

Clues	Intended Action	Correct Response	User Function
Let me see what you can do.	Guard	Attack	Interpretive
You should have shown me a move at least as powerful as this!	Special Move	Guard	
Let us calm things down a bit.	Guard	Attack	
Heh heh heh... A little bit of tension isn’t a bad thing, either.	Guard	Attack	
Very nice... Now I’ll show you what I can do!	Super Move	Guard	
I’m not finished with you yet!	Attack	Special Move	
This time why don’t you make a move?	Guard	Attack	
Very nice... But do you think you can counter this next one as well?!	Special Move	Guard	

Figure 5
Rock Scissors Paper System in Suikoden V

The duel in the series operates under *rock scissors paper* (RPS) system where attack > guard > special/super move > attack. The players are given three seconds to decide which move they will take in response to the battle cries expressed by the opponent. Table 10 shows the dialogue during a duel between Gizel Godwin, one of the antagonists, against Prince Freyjadour Falenas, the hero of the game. The players can either perform a trial and error by mnemonically memorising the pattern or guessing the next move through a quick scan on the lines and the voices uttering the lines.

Timing in signalling also refers to the narrative timing in which certain cutscenes that display particular narratives appear. Tri Ace's *Valkyrie Profile*, for instance, employs this when the players have to recruit supporting characters called Einherjar – they can be recruited based on the chapters of the narratives. Another example is Square Enix's *Final Fantasy X-2*. If gamers want to acquire a "dressphere" – a power-imbued costume or trainer, they have to patiently walk through chapter one and two and meet the lion-like bipedal Ronso Kimahri.

Kimahri: Ronso youth grown horns of hatred for Guado.
Yuna: a. Have you discussed it with everyone?
b. You have to learn to deal with these things!
c. Why not forget about it for now?

If gamers are accustomed to the game's prequel, *Final Fantasy X*, they would select the second choice which is the correct choice. The two games narratively deliver the message of being self-reliant as depicted from the main character Yuna. The self-reliance message is more profoundly expressed in the sequel as seen from the personality development of a more matured Yuna. In the second chapter, when asked a similar question, gamers have to select the second choice, which contains the similar message, in order to once more unlock the trainer "dressphere".

Discussion

To be playful, as hinted by Huizinga (2014), an act should indicate lability and merriness – the breaking of rules to break a laughter within the context of a contest. Ludic language serves these indicators. As laid out by Crystal (1998) through examples, the lability of language use, such as puns, aims at triggering laughter from those reading the puns. The problem is that in-game puzzles might not entirely work the same way as how puns work for the sake of lability and merriness. Puns indicate their lability through word plays while puzzles do that via the various ways they are displayed and clued. In-game puzzles also address this lability either through lingual, para-lingual, and non-lingual expressions. This is evident from the various means of exploiting them in tandem with visual, audial, and operative elements.

Playability, as implied by Aarseth (1997), is manifested through user functions. Interpretive user function suggests that in-game puzzles are designed with a clue to which the players have to do an interpretation. All clue types are fundamentally interpretive since the players have to cognitively decipher what the clues mean. This is particularly so with clues that employ orbital and signalling user function. The next user function, explorative, focuses on narrative and mechanical exploration exercised to solve the puzzles. Clues with this user function encompasses mostly puzzles aimed at driving the players to traverse the game world, especially RPGs with an open world genre. Collocative, referential, and reflective clues are likely to be designed with this user function since they would mostly exploit in-game objects as possible hints. All these user functions define the eight clues and determine the playability of the clues.

The combination of ludic language and user function could serve as a theoretical basis to investigate how puzzles are designed in the video game context. Without the combination of the two, puzzles who rely not only on lingual aspects, but also visual and mechanical aspects would only be treated textually, implying an ignorance toward the narrative and mechanical aspects of the games. This combination could patch the gaps left by the previous theories that explicate puzzles, riddles, and hints. Enigmatisation, the process of encoding hints (Hassan-Rokem & Shulman, 1996), could be explained in detail when the process is applied in the video game context. The enigmatisation in games requires ludic language and user functions to explain how the narrative and mechanical elements of the games ought to be aligned and adjusted. Through this alignment and adjustment, what Pagis (1996) calls as balance in the riddles could be achieved.

The combination of ludic language and user functions could also add a contribution to the study of puzzling language, as studied by Danesi (2002). Orbital, conditional, collocative, referential, indicative, reflective, reversal, and signalling clues could signify how puzzling language function and operate differently in the gaming context. This typology could be further employed and transformed into an algorithm to invent a puzzle design related tools as studied by Nelson and Stratchan (2009), Oei and Patterson (2014), and Pusey et al. (2021). The logical basis of typology renders it possible to be transformed into becoming an algorithm.

Conclusion

The aim of this qualitative study is to address the issues of puzzle design in video games from the perspectives of ludic language. To achieve the aim, a typology of puzzle design in video games that emphasises on the tandem between ludic language and user functions was constructed. The findings indicate that puzzles in game are constructed based on eight premises. We call these premises orbital (a is there for b), conditional (if a, then b), collocative (with a comes b), referential (a refers to b), indicative (a is a until it becomes b), reflective (a can be changed with b), reversal (a comes after b), and signalling (a signals b what to do). The findings further indicate that ludic language and user functions work side by side in delivering the premises from which the clues are constructed. The combination further suggests that ludic language in game design is likely to function mechanically in a blend with the game narratives. Nevertheless, the study was limited to ludic language and user functions in general. Therefore, future studies on puzzle designs in video games can still disclose possibilities on specific parts of ludic language like wordplay, or of specific genre of games like RPGs, and of specific user functions. Future studies could propose, define, and formulate the neologism of *puzzlinguistics* by implementing quest theory by Howard (2022), balance theory by Csikszentmihalyi (2014), gaming language theory by Purnomo and Khristianto (2019), the study of distraction by McMahon et al. (2011), dramatic sense of puzzles in video games by Fullerton (2008), puzzle design principles by Schell (2008), and pedagogical and affective dimensions by Anable (2018). Delving into studies of game language via the use of these theories could shed more light on the linguistic intricacies involved in the design of video games.

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SINTAKSIS KATA GANTI NAMA DALAM BAHASA KINTAQ

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ABSTRAK

Makalah ini membincangkan tentang Kata Ganti Nama (KGN) yang wujud dalam bahasa suku Kintaq di Perak menerusi analisis sintaksis. KGN merupakan penanda untuk mewakili orang yang sedang bercakap, orang yang mendengar dan orang ketiga yang dimaksudkan dalam sesuatu perbualan. Pengkaji telah mengadakan kajian lapangan ke penempatan yang didiami oleh penutur natif Kintaq iaitu Kampung Bukit Asu, Lenggong, Perak. Kajian ini akan menumpukan kepada setiap kategori Kata Ganti Nama Diri (KGND), iaitu KGND Pertama, KGND Kedua dan KGND Ketiga suku Kintaq. Data yang diambil ialah data primer kerana data ini telah dikumpulkan melalui kaedah temu bual penutur natif suku Kintaq semasa pengkaji menjalankan kajian lapangan. Hasil kajian mendapati terdapat lapan leksikal KGN secara keseluruhannya. Pecahan leksikal tersebut ialah tiga KGND Pertama, dua KGND Kedua dan tiga KGND Ketiga. Program Minimalis juga membantu kajian ini untuk memberikan fitur kepada KGN Kintaq yang mempunyai kasus nominatif, akusatif mahupun genetif apabila berada pada kedudukan tertentu dalam ayat.

Kata Kunci: Orang asli Negrito; Kintaq; kata ganti nama; Program Minimalis

SYNTAX OF PRONOUNS IN KINTAQ LANGUAGE

ABSTRACT

This paper reports a syntactic analysis of pronouns that exist in the language of the Kintaq tribe in Perak. Pronouns is a marker to represent the person who is speaking, the person who is listening and the third person referred to a conversation. The researcher conducted a field study in Kampung Bukit Asu, Lenggong, Perak, a settlement inhabited by native Kintaq speakers. This study focuses on each category of pronouns which are First Personal Pronouns, Second Personal Pronouns and Third Personal Pronouns of the Kintaq tribe. The data were primary data because they were collected by interviewing native speakers of the Kintaq tribe. The results of the study found that there are eight lexical pronouns in total. The lexical fragments are three First Personal Pronouns, two Second Personal Pronouns and three Third Personal Pronouns. The Minimalist Program also assists this study in providing features to the Pronouns of Kintaq tribe that have nominative, accusative, or genitive cases when in certain positions in the sentence.

Keywords: *Negrito Natives; Kintaq; pronouns; Minimalist Program*

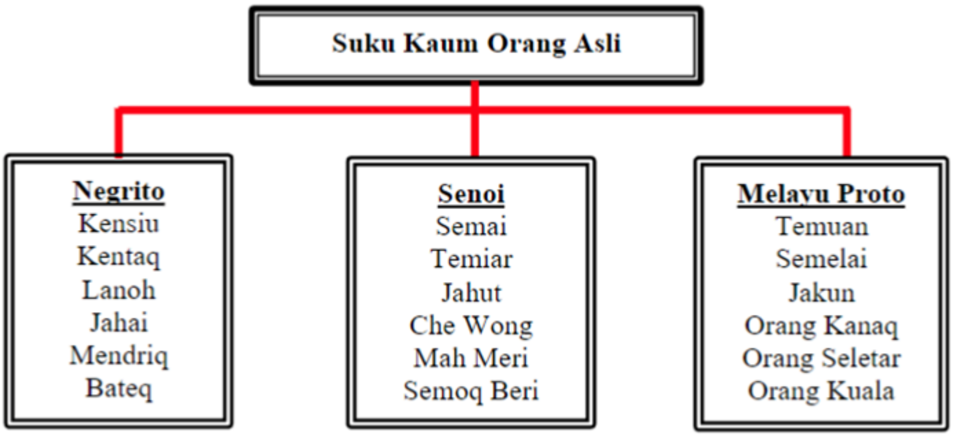
Pengenalan

Sintaksis merupakan satu cabang di bawah ilmu linguistik yang memainkan peranan dalam kajian struktur ayat (Carnie, 2011). Bahkan, bidang ini juga bukan sahaja menekankan kepada pembinaan ayat semata-mata, namun menganalisis hukum-hukum yang menentukan cara setiap leksikal disusun dalam ayat sehingga terbentuknya satu ayat yang bermakna.

Terdapat pelbagai kajian sintaksis yang telah dijalankan oleh para pengkaji dengan fokus kajian yang berbeza. Bagi kajian ini, kajian sintaksis yang dijalankan ialah analisis terhadap Kata Ganti Nama (KGN) bagi orang asli Negrito, khususnya suku Kintaq. Secara umum, terdapat empat jenis KGN, iaitu KGN diri, KGN panggilan, KGN tanya dan KGN tunjuk (Jalaluddin, 2001). Penggunaan jenis kata ini banyak digunakan dalam pertuturan, iaitu komunikasi itu akan menjadi lebih mudah kerana adanya elemen yang boleh merujuk kepada pihak-pihak yang terlibat dalam sesuatu proses komunikasi.

Komuniti orang asli Negrito merupakan antara masyarakat orang asli yang wujud di Malaysia, seperti Melayu-Proto dan Senoi. Memiliki jumlah penuturnya yang terendah, berbanding dengan dengan Melayu-Proto dan Senoi, masyarakat orang asli Negrito berjumlah hampir 5,009 orang sahaja penuturnya (Jabatan Kemajuan Orang Asli [JAKOA], 2021). Oleh yang demikian, hampir majoriti suku kaum orang asli Negrito berpusat di Semenanjung Malaysia, khususnya di negeri Kelantan, Pahang, Terengganu, Perak dan Kedah. Seperti suku kaum orang asli yang lain, orang asli Negrito juga turut mempunyai suku kaumnya yang tersendiri, sama seperti komuniti orang asli yang lain, seperti ditunjukkan dalam Rajah 1.

Rajah 1
Senarai Suku Kaum Orang Asli Mengikut Kaum Utama



(Sumber: Yusop & Sabak, 2018)

Kepelbagaian suku kaum dalam masyarakat orang asli juga melahirkan perbezaan penggunaan bahasa dalam kalangan suku kaum masing-masing. Sama seperti dialek, kewujudan perbezaan bahasa juga melahirkan perbezaan penggunaan KGND dalam kalangan komuniti orang asli Negrito yang merupakan antara rumpun bahasa Austrosiatisk. Oleh yang demikian, perbezaan tersebut dapat dilihat melalui komunikasi harian mereka dan sosioekonomi serta geografi penempatan suku kaum masing-masing. Masyarakat orang asli Negrito yang mengamalkan gaya hidup memungut hasil hutan masih lagi tinggal di kawasan berdekatan bukit-bukit dan pedalaman hutan ekoran daripada kegiatan mereka yang mengambil masa untuk memasuki hutan demi mencari hasil hutan sebagai keperluan harian mereka. Justeru, gaya hidup mereka masih lagi sama seperti kegiatan asal orang asli dan hanya sebilangan kecil daripada masyarakat mereka yang mula untuk menceburi bidang-bidang kerani (JAKOA, 2021). Melihat kepada gaya hidup komuniti orang asli Negrito, kajian ini memberikan tumpuan kepada sintaksis bahasa Kintaq, iaitu antara bahasa suku kaum orang asli Negrito yang berpusat di negeri Perak. Seperti suku kaum yang lain, suku kaum Kintaq turut mempunyai keunikan dalam pembentukan ayatnya yang memiliki syarat-syarat untuk memastikan setiap leksikal yang digunakan dalam ayat berada pada posisi yang tepat agar ayat yang dibina gramatis dan boleh difahami, seperti kajian yang dilakukan oleh Sultan dan Ramli (2015) mengenai kata ganti nama diri bahasa Mendriq, suku kaum Negrito yang lain.

Tidak ketinggalan, isu kekurangan kajian terhadap orang asli Negrito ini boleh dianggap sebagai satu ancaman terhadap etnik mereka kerana komuniti ini berupaya untuk kehilangan identiti mereka dalam masa yang singkat. Oleh sebab itu, kajian yang dijalankan ini adalah satu inisiatif yang memberi manfaat kepada kelompok ini sendiri. Penggunaan pendekatan yang bersesuaian bagi menganalisis sintaksis bahasa Kintaq juga membolehkan perbincangan yang baik dapat diulas dalam kajian ini agar kajian ini dapat dijadikan panduan kelak. Maka, bahasa komuniti orang asli di Malaysia haruslah terus diselidiki supaya bahasa yang digunakan oleh mereka dapat dipelihara, dan dijaga sebagai warisan negara.

Bahasa Orang Asli Negrito

Datuk Anthony Ratos telah memperkenalkan istilah orang asli Negrito yang kemudiannya dikemukakan kepada Kirby's Teacher College di Liverpool, United Kingdom (Radzi et al., 2011). Menurut statistik yang diperoleh daripada JKOA (2021), negeri-negeri lain paling ramai didiami oleh masyarakat ini ialah Pahang, Perak dan Kelantan, yang kemudiannya diikuti oleh negeri Selangor, Negeri Sembilan, Johor, Melaka, Kedah dan Terengganu. Walaupun dunia semakin berubah, gaya hidup masyarakat orang asli yang sering berpindah-randah masih tetap sama kerana sehingga kini penempatan mereka boleh dijumpai di kawasan pedalaman, kawasan hulu sungai, kawasan persisiran pantai ataupun di kawasan pinggir hutan yang berdekatan dengan kampung Melayu. Faktor lokasi kediaman di kawasan pedalaman amatlah penting bagi masyarakat ini dalam pencarian penempatan baharu bagi memastikan kelangsungan hidup mereka berterusan dengan sumber-sumber alam semula jadi yang berdekatan dengan mereka. Kini, orang asli masih mengamalkan amalan hidup, sistem kepercayaan dan bahasa tertua di negara ini (JAKOA, 2021).

Meskipun kebanyakan masyarakat orang asli masih mengamalkan tradisi nenek moyang mereka, namun masih ada perubahan yang akan berlaku terutamanya terhadap bahasa mereka sekiranya mereka sudah boleh menjalani kehidupan bersama masyarakat Melayu pada waktu kini. Bahasa mereka akan menjadi terancam kerana tiada pembelajaran secara formal terhadap bahasa mereka walaupun dalam kalangan suku mereka sendiri. Hal ini dikatakan demikian kerana, bahasa mereka diwarisi daripada nenek moyang mereka dan perubahan akan berlaku apabila masyarakat mereka mula berasimilasi dengan masyarakat Melayu tempatan. Sehubungan dengan itu, kajian ini dijalankan untuk mengenal pasti penggunaan KGN yang sememangnya banyak digunakan dalam sesuatu proses komunikasi. Kajian ini menumpukan kepada suku kaum orang asli Negrito Kintaq sahaja. Suku kaum ini dipilih disebabkan oleh peratus bilangannya adalah antara yang terendah berdasarkan statistik daripada JKOA (2021) dalam kalangan orang asli Negrito di Semenanjung Malaysia, iaitu seramai 112 orang yang merangkumi 25 buah keluarga (JAKOA, 2022).

Seperti komuniti orang asli di Malaysia, penggunaan KGN dalam masyarakat orang asli pada peringkat antarabangsa juga mempunyai keunikan tersendiri dalam penggunaannya dalam ayat. Rumpun bahasa Austroasiatik yang turut melibatkan komuniti orang asli Negrito dan beberapa masyarakat orang asli yang lain membuktikan bahawa setiap suku kaum orang asli mempunyai leksikal-leksikal tersendiri yang berbeza untuk digunakan sebagai KGND dalam komunikasi harian mereka. Kajian bahasa orang asli Austroasiatik seperti suku kaum Tondano dikaji oleh Brickell (2023) di kepulauan Sulawesi, Indonesia. Kajian tersebut merangkumi fonologi, morfologi, dan sintaksis, dengan perhatian khusus diberikan kepada sistem penandaan suara simetri dan kesannya terhadap pelbagai bahagian tatabahasa. KGND dalam bahasa Tondano didapati menggunakan beberapa leksikal *kèy* sebagai "kami" yang digunakan dalam ayat, sama ada boleh berdiri sendiri mahupun menjadi apitan anaforik. Dalam bahasa Tondano juga menunjukkan bahawa penggunaan beberapa apitan dalam bahasa tersebut yang diapit dalam KN memberikan subjek dalam ayat tersebut tanpa memerlukan kehadiran leksikal KN atau KGND sebagai subjek dalam ayat. Maka, kajian tersebut memberikan panduan kepada kajian yang dilakukan ini untuk pengkaji menganalisis dan membincangkan KGND dalam bahasa Kintaq, iaitu sekiranya leksikal KGND bahasa Kintaq boleh berdiri sebagai leksikal atau perlu diapit.

Walaupun golongan ini telah lama menetap di semenanjung Malaysia, namun didapati sedikit kajian dilakukan kerana pengasingan mereka daripada masyarakat tempatan. Hanya beberapa kajian didapati telah dijalankan ke atas orang asli Negrito suku lain seperti Sultan (2009), Sultan, Jalaluddin dan Radzi (2010), Radzi, Sultan, Ahmad dan Jalaluddin (2011), Sultan dan Ramli (2015), dan Abd Ghani dan Che Lah (2015).

Merumuskan perbincangan kajian lampau ini, kajian-kajian mengenai bahasa orang asli diberikan tumpuannya kepada sudut linguistik bermula dari peringkat fonetik sehinggalah sintaksis untuk menganalisis penggunaan bahasa tersebut dalam komunikasi harian. Fokus kajian ini yang memberikan tumpuan kepada KGND dalam bahasa Kintaq dapat memberikan gambaran kepada masyarakat mengenai leksikal-leksikal yang terlibat, yang digunakan oleh penutur bahasa Kintaq untuk membina ayat dalam bahasa orang asli dengan menggantikan KN dalam ayat menggunakan KGND sebagai subjek dalam ayat. Sehubungan itu, kajian ini hanya memberikan tumpuan kepada jenis KGND dalam bahasa Kintaq dan penggunaannya dalam struktur ayat bahasa tersebut berdasarkan kasus atau posisi leksikal tersebut dalam ayat.

Responden dan Kawasan Kajian

Melalui kajian ini, pengkaji telah meletakkan beberapa penanda aras yang dipecahkan kepada tiga bahagian dalam membantu pengkaji untuk memperoleh data yang telus. Tiga bahagian tersebut dipecahkan kepada kategori KGN, responden kajian dan penempatan suku orang asli Negrito yang terpilih. Bagi kategori KGN, pengkaji memfokus kepada KGN pertama, KGN kedua dan KGN ketiga. Tambahan pula, buku yang bertajuk *Pronouns: Structure, acquisition and processing* yang disunting oleh Sultan dan Othman (2021) telah memberikan pandangan tentang proses kognitif yang terlibat dalam penggunaan KGN dan peranan KGN dalam pemprosesan bahasa. Oleh sebab itu, mana-mana bahasa sekalipun memerlukan KGN untuk memastikan kesampaian maksud yang diinginkan. Kedua, pemilihan responden yang ditetapkan oleh pengkaji dihadkan kepada dua orang responden sahaja. Pendekatan ini membolehkan pengkaji mendalami pengalaman subjektif responden. Pendekatan ini juga sangat sesuai untuk kajian dengan saiz sampel yang kecil, serta membolehkan analisis mendalam tentang pengalaman responden dan bukannya berpandukan statistik semata-mata (Creswell, 2013). Dua orang responden tersebut mestilah memenuhi kriteria yang ditetapkan oleh pengkaji seperti penutur natif yang fasih dalam bahasa Kintaq dan bahasa Melayu serta tinggal di penempatan mereka sejak lahir lagi. Maklumat ini penting bagi pengkaji memperoleh data asli bagi setiap suku yang terlibat. Selain itu, mereka mestilah berumur dalam lingkungan golongan dewasa sehingga warga tua. Penutur generasi muda tidak diambil sebagai responden disebabkan oleh faktor percampuran bahasa dengan masyarakat tempatan. Perkara ini mudah berlaku kerana generasi ini mudah terikut-ikut dengan bahasa atau trend semasa walaupun mereka tinggal di kawasan pedalaman.

Ketiga, penempatan bagi suku Kintaq merentasi banjaran Titiwangsa di Semenanjung Malaysia dan meliputi sebahagian negeri Kedah dan negeri Perak. Penempatan suku kaum ini boleh dijumpai di kawasan Hulu Perak. Pengkaji telah melakukan kajian lapangan ke Kampung Bukit Asu, iaitu kedua-dua kampung ini didiami oleh suku Kintaq. Maklumat tentang keberadaan penempatan mereka telah diperoleh daripada pihak JAKOA sendiri dan memerlukan bantuan mereka mengiringi pengkaji untuk memasuki kampung tersebut. Pengkaji juga telah mendapatkan kerjasama daripada Tok Batin Rizal, iaitu penghulu di kampung tersebut. Melalui kajian ini, pertimbangan etika adalah penting. Pengkaji telah mendapatkan persetujuan daripada responden, memastikan mereka memahami tujuan dan prosedur yang dilakukan. Pengkaji juga perlu peka akan sensitiviti budaya, menghormati adat dan kepercayaan suku Kintaq.

Konsep Kata Ganti Nama Diri

Kata ganti nama diri (KGND) merupakan kata yang tergolong dalam frasa nama. Penggunaan KGND menggantikan KN yang berperanan sebagai subjek dalam ayat dan turut mengambil alih tugas nama khas (Hassan, 1973). Frasa, yang boleh digolongkan kepada frasa nama, frasa kerja, frasa adjektif dan frasa posisi mempunyai peranan masing-masing dalam membentuk ayat yang gramatis (Karim et al., 2004). Berdasarkan jenis-jenis frasa, frasa nama memerlukan kata nama sebagai kepala dalam ayat untuk memberikan ayat mempunyai makna. Frasa nama bahasa Melayu boleh terdiri daripada ciri nama yang perlu diikuti penerang kata sifat (Soh, 2000). Sultan (2009) menerangkan bahawa penggunaan kata nama adalah sebagai subjek yang memerlukan objek untuk berfungsi dalam ayat. Oleh yang demikian, kata nama mahupun KGND merupakan kata yang mudah untuk dikenal pasti kerana posisinya yang perlu berada sebagai kepala ayat. Sekiranya objek atau predikat ayat mendahului subjek, maka ayat tersebut akan menjadi janggal dan tidak difahami oleh pendengarnya. Ayat (a) dan (b) berikut yang mempunyai subjek “kami” dan objeknya “berlari” menunjukkan bahawa KGND memerlukan predikat atau ayat tersebut tidak gramatis:

a. Kami berlari
b. *berlari kami

Oleh yang demikian, penggunaan KGND adalah berbeza peraturan dan syaratnya dalam bahasa yang wujud di dunia. Perbezaan posisi kata nama atau KGND yang hadir dalam pembentukan ayat mempunyai ciri unik yang pelbagai dalam bahasa di dunia. Wujud juga KGND yang memiliki fitur bilangan, kata tugas, jantina dan kelas dibawa bersamanya dalam ayat, menggantikan leksikal dalam pembinaan ayat, seperti yang diulas oleh Sultan (2009). Maka, kajian ini memberikan tumpuan untuk merungkai penggunaan KGND dalam bahasa Kintaq untuk mengetahui fungsi dan posisi leksikal KGND dalam pembinaan ayat bahasa Kintaq.

Seperti yang diterangkan oleh Chomsky (1995), setiap kata nama mempunyai atau ditandai dengan kasus yang jelas berdasarkan posisi dalam ayat. Maka, KGN, yang juga berada di bawah kategori kata nama sewajarnya memiliki kasus-kasus yang telah dihuraikan oleh Chomsky dalam sintaksis. Sekiranya KGN berfungsi sebagai subjek, maka kasus nominatif diberikan kepada KGN tersebut. Begitu juga dengan objek atau pemilik, kasus akusatif atau genetif akan ditandakan kepada KGN atau KGN tersebut sudah memiliki kasus-kasus berkaitan berdasarkan posisi mereka. Oleh itu, perbincangan mengenai kasus-kasus pada KGN bahasa Kintaq akan diterangkan berdasarkan huraian deskriptif yang dipandukan rajah pohon bagi memperlihatkan pergerakan KGN dalam ayat.

Kata Ganti Nama Suku Kintaq

Berdasarkan dapatan kajian, KGND dalam bahasa Kintaq menduduki posisi subjek sebagai pelaku dalam ayat tersebut. Posisi subjek diletakkan pada kepala ayat agar subjek ayat tersebut dapat difahami dengan jelas pelakunya. KGND bahasa Kintaq, seperti bahasa Melayu, terbahagi kepada tiga, iaitu pertama, kedua dan ketiga. Maka, seperti bahasa Melayu, KGND pertama, kedua dan ketiga merupakan KGND yang membawa fitur tunggal atau jamak bersamanya. Perbincangan mengenai fungsi dan kegunaan KGND dalam bahasa Kintaq dijelaskan pada subtopik berikut.

Kata Ganti Nama Diri Pertama

Umumnya, pada KGND pertama, penggunaan KGN ini akan merujuk kepada orang yang pertama dalam ayat yang dibentuk. Dalam bahasa Kintaq, *yek* merupakan KGND pertama dalam bahasa Kintaq, yang membawa maksud *saya*. Penggunaan *yek* berperanan sebagai subjek dalam ayat, objek dan juga pemilik. Ayat (1) dan (2) merupakan contoh bagi KGND pertama.

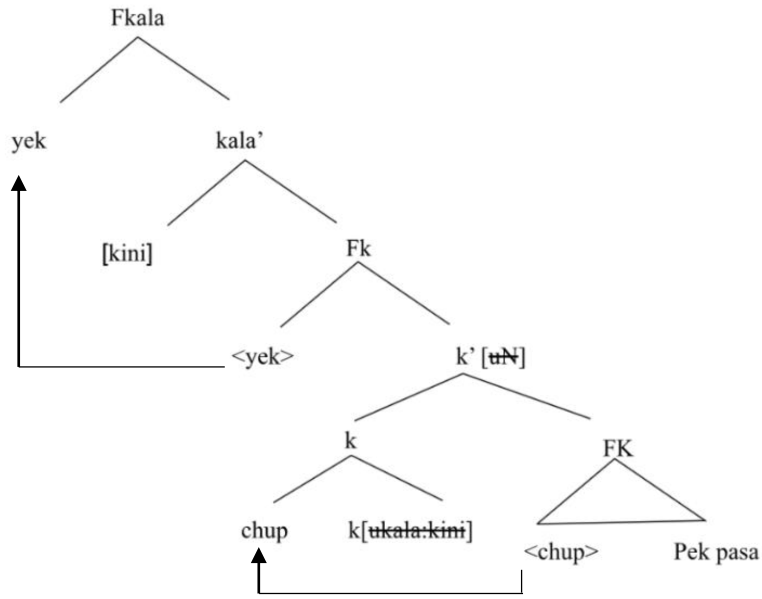
1. *yek* chup pek pasa
   Saya pergi ke pasar
   Saya pergi ke pasar.

2. ei *yek* sapuh cemin
   Ayah saya sapu cermin
   Ayah saya mengelap cermin.

Merujuk ayat (1) dan (2), kedua-dua ayat tersebut menggunakan *yek* sebagai subjek atau pemilik dalam ayat. Penggunaan *yek* dalam ayat membuktikan bahawa KGND pertama dalam bahasa Kintaq boleh membawa fungsi subjek mahupun pemilik berdasarkan posisi KGN tersebut. Pada ayat (1), *yek* berada pada posisi subjek, menjadi pelaku bagi ayat tersebut, yang berada sebelum kata kerja *chup*, pergi dan *pek pasa* sebagai pelengkap ayat. Keadaan ini menunjukkan bahawa maklumat pada ayat tersebut sudah lengkap dan boleh difahami oleh pendengar mengenai subjek *yek*, KGND *saya*, yang *pergi ke pasar*. Bagi penggunaannya sebagai pemilik, ayat (2) menunjukkan bahawa *yek* berada selepas kata nama *ei*, yang membawa maksud *ayah* diikuti dengan kata kerja *sapuh cemin* yang memberi maklumat bahawa *ayah saya mengelap cermin* pada ayat (2). Rajah 2 menunjukkan rajah pohon bagi ayat (1) mengenai posisi *yek* sebagai KGND pertama.

Rajah 2

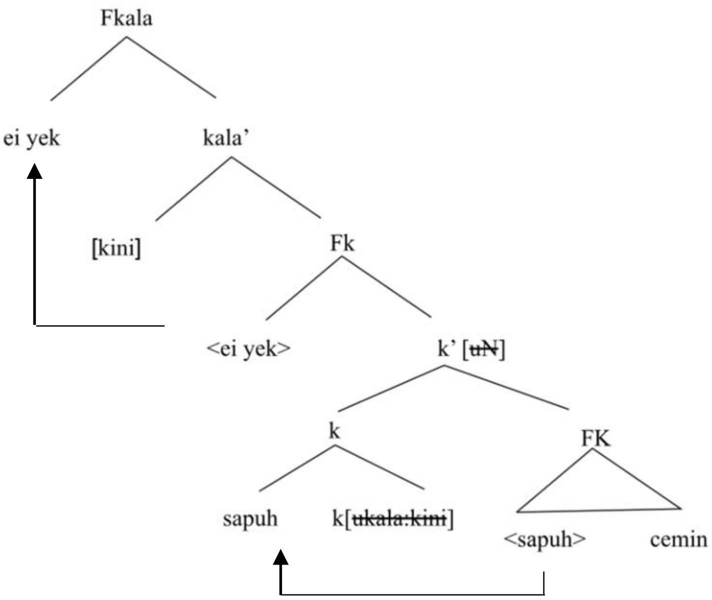
Rajah Pohon Ayat (1)



Berdasarkan rajah pohon bagi ayat (1), penggunaan *yek* dilihat meninggalkan bekas di bawah Fk untuk menjadi subjek yang bergerak di bawah kepala Fkala. Maka, ayat berikut menjadikan *yek* sebagai subjek dalam ayat untuk memberikan maklumat mengenai ayat berikut *yek chup pek pasa* yang bermaksud *saya pergi ke pasar.* Maka, bagi penggunaan *yek* sebagai subjek, leksikal tersebut bergerak ke kepala Fkala untuk menjadi subjek dalam ayat dalam bahasa Kintaq bagi mengisi kekosongan spek dalam ayat berdasarkan keserasian, maka, KGND *yek* dipilih untuk mengisi kekosongan pada peringkat penyemakan fitur [N, tunggal]. Bagi kasus genetif (pemilik), rajah pohon bagi ayat berikutnya adalah seperti dalam Rajah 3.

Rajah 3

Rajah Pohon Ayat (2)



Bagi tujuan pemilik, posisi *yek* berada selepas KN untuk merujuk kepunyaan KN tersebut. Bagi rajah pohon ayat (2), *ei* yang merujuk kepada *ayah* digandingkan bersama *yek* selepasnya untuk menunjukkan bahawa subjek dalam ayat tersebut ialah *ayah saya*, atau *ei yek*. Oleh itu, bagi ayat tersebut, subjek dalam ayat *ei yek* diberikan penerangan pemiliknya dengan kehadiran *yek* selepas KN *ei.*

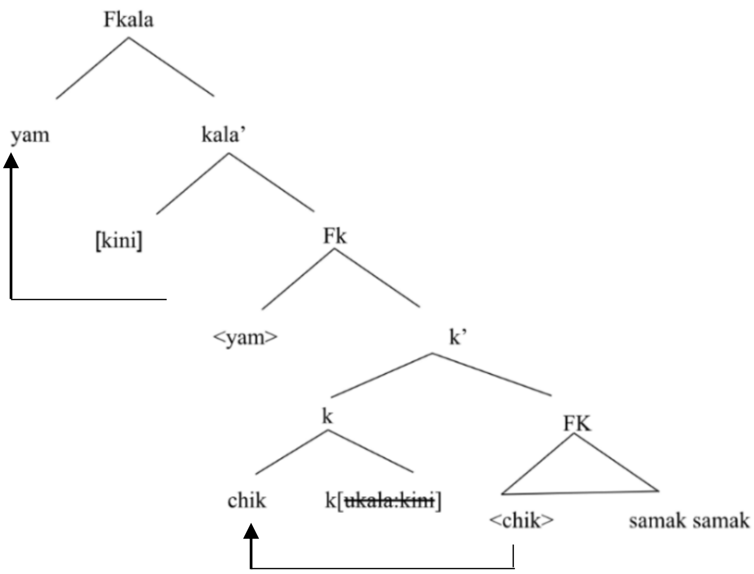
Bagi KGND *kita* atau *kami*, penggunaan *yam* tiada perbezaannya dengan bahasa Melayu kerana penggunaannya boleh dijadikan sebagai subjek mahupun pemilik dalam ayat. Ayat (3) merupakan contoh penggunaan *yam* dalam ayat yang membawa maksud *kita* dalam terjemahan dalam bahasa Melayu.

3. *yam* chik samak samak
   Kita makan sama sama
   Kita makan bersama-sama.

Berdasarkan ayat (3), *yam* merujuk kepada kumpulan orang pertama dalam keadaan jamak yang hadir sebelum kata kerja *chik* dan menunjukkan bahawa perbuatan tersebut dilakukan secara beramai-ramai. Kehadiran *yam* dengan memasukkan pelaku kumpulan orang pertama dalam ayat sebagai maklumat bahawa perbuatan tersebut dilakukan secara beramai-ramai. Rajah 4 menerangkan mengenai posisi *yam* dalam ayat.

Rajah 4

Rajah Pohon Ayat (3)



Penggunaan *yam* sebagai KGND pertama jamak mempunyai peranan sintaksis yang sama seperti KGND tunggal *yek*. Posisi *yam* perlu berada pada posisi subjek untuk menjadi kepala bagi ayat seperti rajah pohon ayat (3). Leksikal *yam* yang meninggalkan bekas untuk menjadi subjek menunjukkan subjek dalam ayat tersebut membawa fitur jamak untuk memberikan maklumat bagi ayat tersebut.

Ayat (4) pula menunjukkan penggunaan *yam* sebagai pemilik dalam ayat dan hadir selepas kata nama *hiyak* yang membawa maksud rumah. Berikut merupakan contoh ayat (4) mengenai penggunaan *yam* sebagai pemilik dalam ayat:

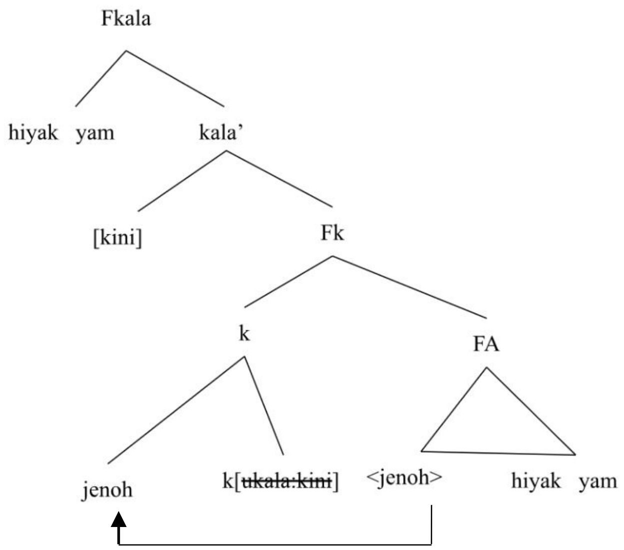
4. hiyak *yam* jenoh
   Rumah kami bersepah
   Rumah kami bersepah.

5. **yam* hiyak jenoh
   Rumah kami bersepah
   Rumah kami bersepah.

Berdasarkan ayat (4), *yam* hadir selepas kata nama *hiyak* menunjukkan bahawa *rumah* tersebut merupakan kepunyaan penutur untuk menerangkan keadaan rumah tersebut dengan kehadiran kata adjektif *jenoh* yang membawa maksud bersepah. Walau bagaimanapun, sekiranya KGND *yam* mendahului kata nama *hiyak*, maka ayat tersebut akan menjadi janggal. Berdasarkan ayat (5), tiada perubahan yang berlaku pada *yam* kerana KGND tersebut boleh hadir sebagai subjek atau pemilik berdasarkan posisinya dalam ayat. Rajah 5 merupakan rajah pohon bagi menerangkan struktur ayat (4).

Rajah 5

Rajah Pohon Ayat (4)



Pemilikan bagi KGND pertama jamak mempunyai peraturan yang sama seperti bahasa Melayu, yang menunjukkan bahawa leksikal KGND perlu berada selepas KN untuk menggambarkan pemilikan bagi KN dalam ayat seperti rajah pohon ayat (4). Leksikal *hiyak* yang merujuk kepada "rumah" digandingkan bersama *yam* untuk merujuk kepada pemilikan "rumah kami". Oleh itu, *hiyak yam* yang menjadi subjek dalam ayat tersebut digandingkan bersama adjektif *jenoh* untuk menjadikan ayat mempunyai maklumat yang bermakna.

Bagi ayat (6) pula, penggunaan *kami* dalam bahasa Kintaq mempunyai perbezaan kerana *kami* perlu digandingkan bersama dengan kata bilangan *jenuh* yang membawa maksud *semua* dalam bahasa tersebut. *Bom* pada dasarnya membawa maksud *ramai* dalam bahasa Kintaq, namun apabila diletakkan bersama *jenuh*, maksud *bom* berubah kepada *kami semua* daripada gabungan *bom jenuh*.

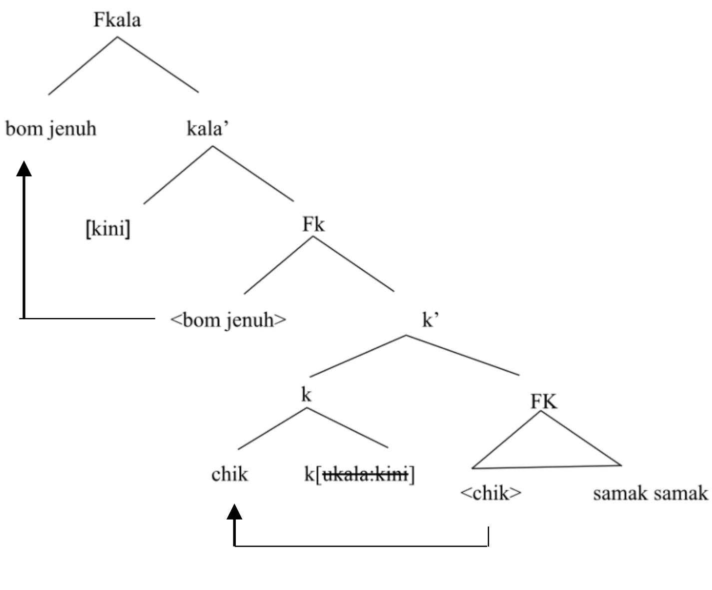
6. *bom* *jenuh* chik samak samak
   Kami semua makan sama sama
   Kami semua makan bersama-sama.

7. **jenuh* *bom* chik samak samak
   Semua ramai makan sama sama
   Semua ramai makan bersama-sama.

Berdasarkan dapatan, penggunaan *bom jenuh* merujuk kepada bilangan pelaku yang ramai, lebih daripada tiga orang, maka penggunaan *jenuh* menegaskan bilangan pelaku dalam ayat bahawa pelakunya adalah ramai seperti ayat (6). Kata kerja *chik* yang hadir selepas *bom jenuh* menunjukkan perbuatan tersebut dilakukan oleh ramai pelaku dalam maklumat ayat tersebut. Maka, maklumat dalam ayat membawa maksud bahawa perbuatan *chik* dilakukan oleh pelaku secara beramai-ramai. Walau bagaimanapun, sekiranya kedudukan *bom jenuh* berubah kepada *jenuh bom*, maka gabungan tersebut tidak menjadikan pasangan leksikal tersebut sebagai KGND kerana dasarnya, leksikal masing-masing mempunyai makna tersendiri (semua dan masing-masing). Ayat tersebut juga merupakan ayat janggal sekiranya dituturkan oleh penutur bahasa Kintaq. Maka, ayat (7) tidak digunakan oleh penutur bahasa Kintaq. Rajah 6 menunjukkan kedudukan *bom jenuh* dalam struktur ayat.

Rajah 6

Rajah Pohon Ayat (6)



Leksikal *bom* dan *jenuh* kedua-duanya merujuk kepada kata bilangan yang boleh digunakan secara berasingan dalam ayat. Namun begitu, sekiranya digunakan bersama, maka fungsi kedua-duanya akan berubah kepada KGND pertama jamak, *kami semua* yang digunakan sebagai subjek dalam ayat seperti rajah pohon ayat (6). Leksikal *bom* perlu dihadiri sebelum leksikal *jenuh* untuk berfungsi sebagai KGND sebagai subjek dalam ayat, dan sekiranya posisi tersebut berubah, maka ayat tersebut akan menjadi janggal. Seperti yang ditunjukkan dalam Rajah 6, *bom jenuh* yang merujuk kepada *kami semua* menjadi subjek dalam ayat tersebut, digandingkan bersama predikat *chik samak-samak* untuk memberikan maklumat kepada pendengar mengenai subjek jamak yang melakukan kata kerja dalam ayat bahasa Kintaq tersebut.

Kata Ganti Nama Diri Kedua

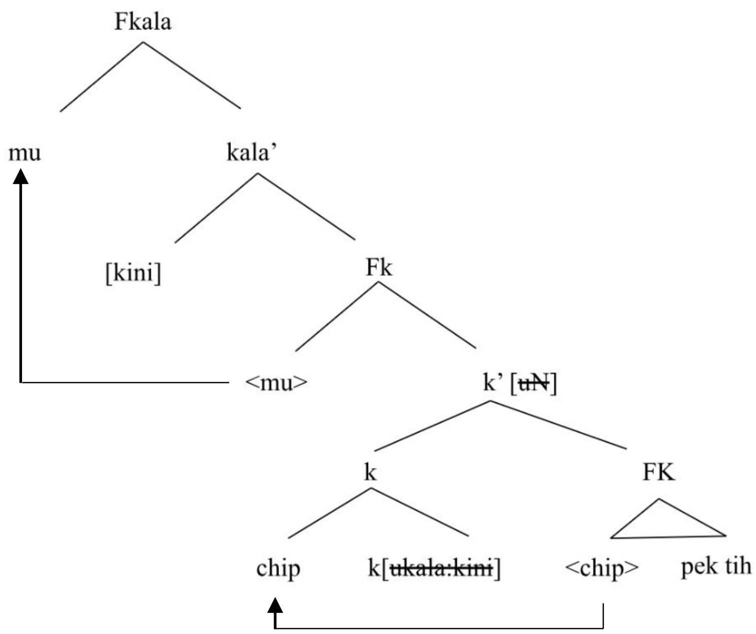
Bagi KGND kedua untuk *kamu* atau *awak* pula, bahasa Kintaq menggunakan *mu* sebagai KGN dalam pelbagai konteks perbualan. Penggunaan KGND kedua dalam bahasa Kintaq adalah seperti berikut:

8. *mu* chip pek tih
   Awak pergi ke sana
   Awak pergi ke sana.

Berdasarkan ayat (8), penggunaan *mu* pada posisi subjek menjadikan KGN tersebut sebagai kepala bagi ayat tersebut yang juga membawa peranan sebagai kasus agentif atau pelaku dalam binaan ayat. Kehadiran *mu* sebelum kata kerja *chip*, bermaksud pergi, juga memberikan maklumat bahawa KGN *mu* sebagai pelaku yang pergi ke sana, secara lengkapnya dalam bahasa Kintaq, *mu chip pek tih*. Maka, posisi *mu* ketika berada di posisi subjek akan memberikan fungsi kepada leksikal tersebut sebagai subjek dalam ayat. Oleh itu, maklumat yang diterima oleh pendengar secara asasnya telah lengkap dengan kehadiran subjek *mu* dalam ayat tersebut. Rajah 7 menerangkan struktur ayat tersebut.

Seperti KGND pertama, leksikal *mu* yang boleh membawa maksud *awak* dalam bahasa Melayu, juga mempunyai peraturan yang sama, sekiranya ingin dijadikan sebagai subjek dalam ayat. Bagi rajah pohon ayat (8), leksikal *mu* bergerak ke bawah payung Fkala untuk menjadi subjek ayat meninggalkan bekas pada Fk. KGND kedua *mu* yang menjadi subjek ayat, dijadikan sebagai kepala ayat, yang digabungkan bersama predikat *chip pek tih*, yang memberi maklumat, *awak pergi ke sana*. Maka, posisi *mu* yang berada pada posisi subjek menjadikan KGND tersebut sebagai subjek dalam ayat.

Rajah 7
Rajah pohon ayat (8)



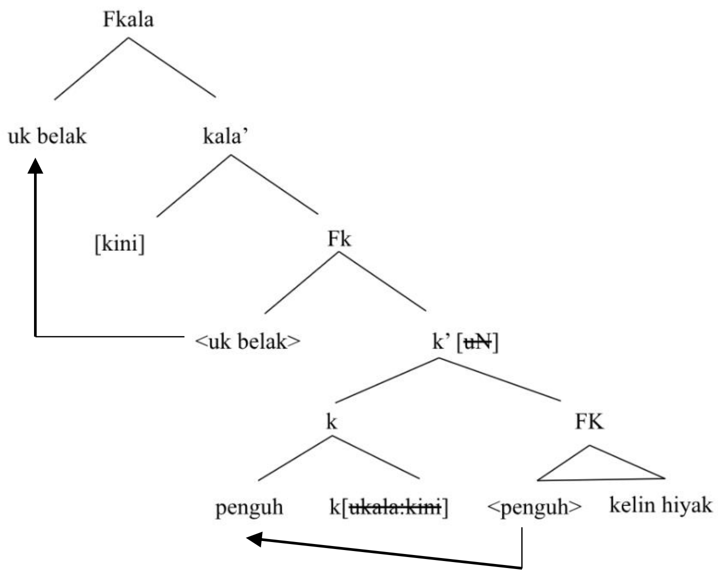
Dalam beberapa perihal, penggunaan *uk* juga dikelaskan sebagai KGND kedua *kamu*, namun perlu dihadiri dengan penjodoh bilangan *belak* yang bermaksud *seorang*. Sekiranya *uk belak* dihimpunkan dalam binaan ayat, maka kedua-dua leksikal tersebut akan membentuk KGND kedua *kamu seorang* dan dijadikan subjek dalam ayat. Berikut merupakan contoh bagi leksikal tersebut:

9. *uk* *belak* penguh kelin hiyak
   Kamu seorang main dalam rumah
   Kamu seorang bermain di rumah.

10. **belak* *uk* penguh kelin hiyak
    Seorang dia main dalam rumah
    Seorang dia bermain di rumah.

Berdasarkan data, *uk* pada asalnya merupakan KGND ketiga *dia*, yang akan dijelaskan pada subtopik seterusnya. Walau bagaimanapun, berdasarkan responden yang memahami bahasa Kintaq, dengan menggabungkan *uk* dan *belak*, perubahan fungsi juga berubah daripada orang yang ketiga kepada orang kedua, iaitu berdasarkan ayat (9). Maka, subjek dalam ayat (9) berubah dari sudut pandang orang ketiga kepada kedua, *kamu seorang*, yang dihadiri kata kerja *penguh*, bermain selepasnya. Struktur ayat (9) yang telah lengkap maklumatnya akan mudah difahami oleh pendengar dengan maksud bahawa subjek yang dimaksudkan merupakan orang yang kedua. Namun begitu, sekiranya kedudukan *belak* mendahului *uk*, maka ayat tersebut akan dianggap janggal kerana *uk* hanya boleh berdiri seorang sekiranya menjadi KGND ketiga tanpa memerlukan penjodoh bilangan *belak* sebagai seorang. Penutur bahasa Kintaq juga tidak menggunakan *belak* bersama *uk* untuk menggambarkan *dia seorang.* Oleh itu, ayat (10) ialah ayat yang janggal dalam struktur ayat bahasa Kintaq dan tidak digunakan oleh penutur bahasa Kintaq. Rajah 8 merupakan rajah pohon bagi struktur ayat (9).

Rajah 8
Rajah Pohon Ayat (9)



Bagi fenomena ini pula, leksikal *uk* pada asalnya merupakan KGND ketiga tunggal *dia*, yang akan dibincang pada subtopik seterusnya. Walau bagaimanapun, setelah leksikal tersebut digabungkan bersama *belak*, yakni *seorang*, maka KGND tersebut berubah fungsi kepada KGND kedua tunggal yang merujuk kepada *kamu seorang,* yang boleh berfungsi sebagai subjek dalam ayat dalam bahasa Kintaq. Namun begitu, kedua-duanya perlu digabungkan bersama, seperti dalam rajah pohon ayat (9), *uk* perlu mendahului *belak,* dan sekiranya *belak* mendahului *uk,* seperti ayat (10), maka ayat dianggap tidak gramatis.

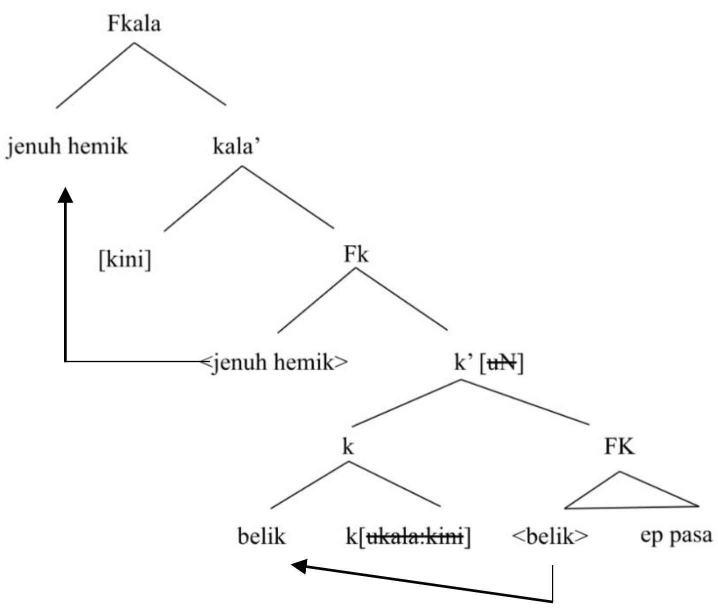
Bagi KGND kedua jamak pula, penggunaan *jenuh* digunakan untuk menggambarkan *ramai* bagi KGND kedua seperti *ramai (kamu)* dalam bahasa Melayu. Kehadiran kata nama *hemik* (*orang)* perlu hadir selepasnya untuk membentuk KGND sebagai subjek dalam ayat tersebut. Walau bagaimanapun, apabila digabungkan *jenuh* bersama *hemik*, maka ayat tersebut akan berubah fungsi *jenuh* daripada *ramai* KGND kepada *ramai* kata bilangan. Maka, struktur gramatis yang lebih tepat adalah seperti ayat (11) dan struktur tidak gramatis digambarkan seperti ayat (12). Ayat berikut menerangkan fungsi *jenuh hemik* sebagai subjek KGND kedua.

11. *jenuh* *hemik* *b*elik ep pasa
    Ramai orang beli di pasar
    Ramai orang membeli di pasar.

12. **hemik jenuh* belik ep pasa
Orang ramai beli di pasar
Ramai orang membeli di pasar.

Berdasarkan ayat (11) dan ayat (12), kehadiran *jenuh* pada asalnya akan membawa maksud *ramai* tanpa fitur KGN yang hadir bersamanya. Namun begitu, apabila dihadirkan bersama kata nama *hemik*, leksikal *jenuh* membawa fitur KGND kedua *(kamu)* bersamanya dan mengubah fungsinya dalam ayat untuk menjadi subjek ayat. Bagi gabungan *jenuh hemik* pula, ia hanya merujuk kepada bilangan orang dalam ayat, tanpa kehadiran KGND yang jelas. Rajah 9 menerangkan struktur ayat *jenuh hemik.*

Rajah 9
Rajah Pohon Ayat (11)



Fenomena lain yang berlaku seperti yang telah dihuraikan boleh dilihat pada Rajah 9. Posisi *jenuh hemik* yang digabungkan dibawa ke bawah kepala Fkala untuk berfungsi sebagai subjek yang mewakili KGND kedua jamak tanpa menggunakan leksikal KGND khusus seperti bahasa Melayu. Proses semakan bagi mengisi posisi spek yang dilakukan membawa gabungan *jenuh hemik* merupakan padanan yang sesuai sebagai kepala ayat, meninggalkan bekas di bawah Fk. Maka, *jenuh hemik* membawa fitur KGND kedua jamak, diangkat menjadi subjek ayat telah ditandai dengan kasus nominatif. Predikat ayat (11) kemudiannya menjadikan ayat tersebut lengkap dengan kehadiran KK *belik* dan objek *ep pasa*.

Kata Ganti Nama Diri Ketiga

KGND ketiga pula, iaitu *uk* mewakili *dia* dalam bahasa Kintaq yang mewakili kata ganti diri tunggal, manakala bagi jamak pula ialah *gin* dan *wih*. Penggunaan *uk* boleh berfungsi sebagai subjek, objek dan pemilik, bagaimanapun untuk *gin* dan *wih,* perbezaan jamak bagi kedua-duanya ialah *gin* mewakili jamak yang ramai, manakala *gin* terpakai bagi dua orang sahaja. Berikut merupakan contoh data bagi KGND ketiga untuk tunggal dan jamak dalam bahasa Kintaq:

13. *uk* chep epol
    Dia pegang epal
    Dia memegang epal.

14. yek lehat *uk* lari da kəh
    Saya lihat dia lari ke sini
    Saya melihat dia berlari ke sini.

15. Bukuk ton *uk*
    Buku itu dia
    Buku itu kepunyaannya.

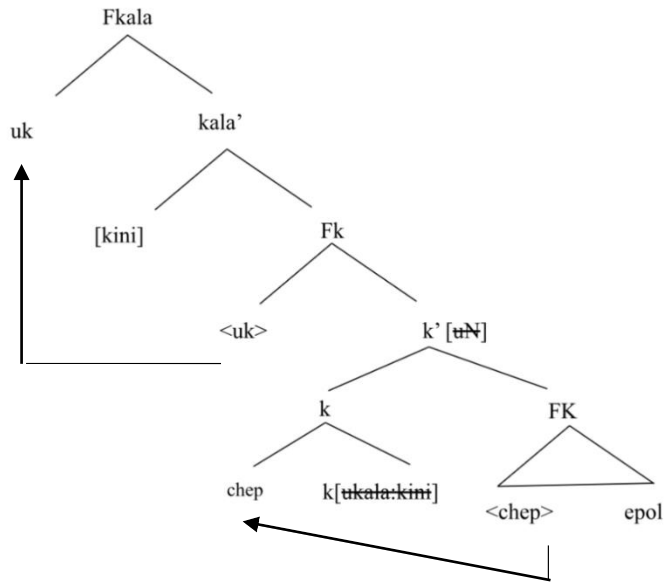
16. *gin* nyoi chinoi
    Mereka duduk sembang
    Mereka duduk bersembang.

17. *wih* chep epol
    Mereka pegang epal
    Mereka memegang epal.

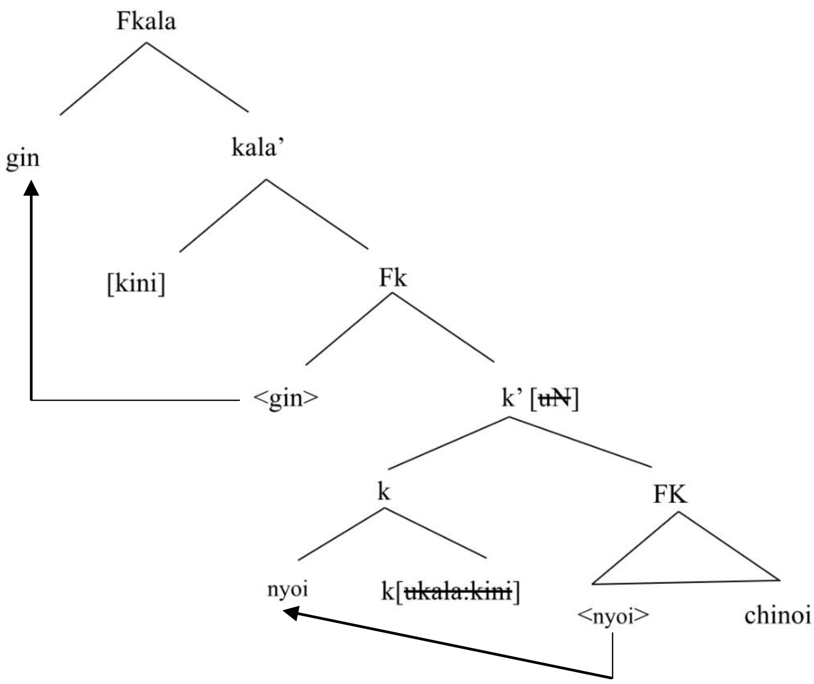
Bagi ayat (13), (14) dan (15), kedudukan *uk* didapati boleh diletakkan pada posisi subjek, objek dan pemilik tanpa sebarang kekangan. Keadaan ini membuktikan bahawa leksikal *uk* boleh berubah fungsinya dalam binaan ayat sekiranya kedudukannya berubah mengikut kesesuaian dan maklumat yang ingin disampaikan oleh penutur. Berbeza dengan kata ganti nama diri tunggal, kata jamak *gin* dan *wih* membawa maksud yang berlainan meskipun boleh berada pada posisi subjek kedua-duanya. KGND ketiga *gin* membawa maksud jamak yang tidak boleh dikira bilangannya menunjukkan bahawa sekumpulan orang yang mewakili KGND tersebut adalah terlalu ramai, berbeza dengan *wih* yang boleh dihitung jumlahnya, iaitu seramai dua orang. Maka, penggunaan *wih* akan digunakan sekiranya penutur ingin menggambarkan bahawa dalam ayat tersebut terdapat dua orang pelaku yang sedang memegang epal, maka ayatnya akan menjadi seperti ayat (16). Rajah 10 dan Rajah 11 masing-masing merupakan rajah pohon bagi ayat (13) dan ayat (16).

Bagi KGND ketiga tunggal, leksikal *uk* yang membawa maksud *dia* dijadikan sebagai subjek pada Rajah 10 bagi ayat (13). Posisi *uk* yang berada pada awal ayat, dilihat berada di bawah payung Fkala, meninggalkan bekas di bawah Fk. Ayat (13) disempurnakan dengan predikat ayat *chep epol* yang membawa maksud *makan epal*. Maka, penggunaan *uk* sebagai subjek dalam ayat menjadikan ayat tersebut bermakna apabila leksikal tersebut berada pada posisi yang betul.

Rajah 10
Rajah Pohon Ayat (13)



Rajah 11
Rajah Pohon Ayat (16)



KGND ketiga jamak pula diwakili oleh leksikal *gin* yang membawa maksud mereka. Seperti bahasa Melayu, sekiranya KGND ingin menjadi subjek, maka posisi leksikal tersebut perlu diletakkan sebelum KK agar leksikal tersebut boleh dijadikan sebagai kepala ayat. Berdasarkan rajah pohon bagi ayat (16), *gin* hadir pada posisi subjek, mendahului KK *nyoi* dan objek *chinoi*. Maka, ayat ini dilihat bermakna kerana *gin* dijadikan sebagai subjek diikuti KK dan objek, membentuk *gin nyoi chinoi* yang bermaksud "mereka duduk bersembang".

Berdasarkan rajah pohon bagi ayat (16), leksikal *gin* boleh diubah kepada *wih* sekiranya penutur ingin menggambarkan bahawa situasi tersebut dilakukan oleh dua orang sahaja. Struktur binaan ayat tersebut masih sama dengan hanya menukarkan leksikal pada kedudukan subjek. Walau bagaimanapun, bagi fungsi pemilik untuk KGND *uk*, sekiranya penutur mengetahui jantina pemilik tersebut, maka penggunaan *uk* akan digugurkan dan digantikan dengan *temekal* bagi lelaki dan *mabey* bagi perempuan, namun kedua-duanya membawa fitur *(-nya)* bersama mereka. Ayat data berikut menunjukkan contoh tersebut:

18. bukuk ton *temekal*
    Buku itu kepunyaannya (lelaki)
    Buku itu kepunyaannya.

19. bukuk ton *mabey*
    Buku itu kepunyaannya (perempuan)
    Buku itu kepunyaannya.

Contoh ayat (18) dan (19) membuktikan bahawa sekiranya penggunaan jantina diketahui oleh penutur, maka penggunaan KGND ketiga *uk* akan digugurkan, namun fiturnya akan kekalkan kepada leksikal jantina dalam bahasa Kintaq, misalnya *temekal* dan *mabey* seperti dalam ayat (18) dan (19). Walau bagaimanapun, struktur ayat tidak terganggu dan ayat tersebut masih gramatis dari segi binaan dan maksudnya. Rajah 12, 13 dan 14 menunjukkan perbezaan antara ayat (15), (18) dan (19). Ayat (15) menunjukkan penggunaan KGND ketiga uk tanpa menyatakan jantina seseorang manakala ayat (18) dan (19) telah menyatakan secara langsung jantina individu yang dimaksudkan dalam ayat tersebut.

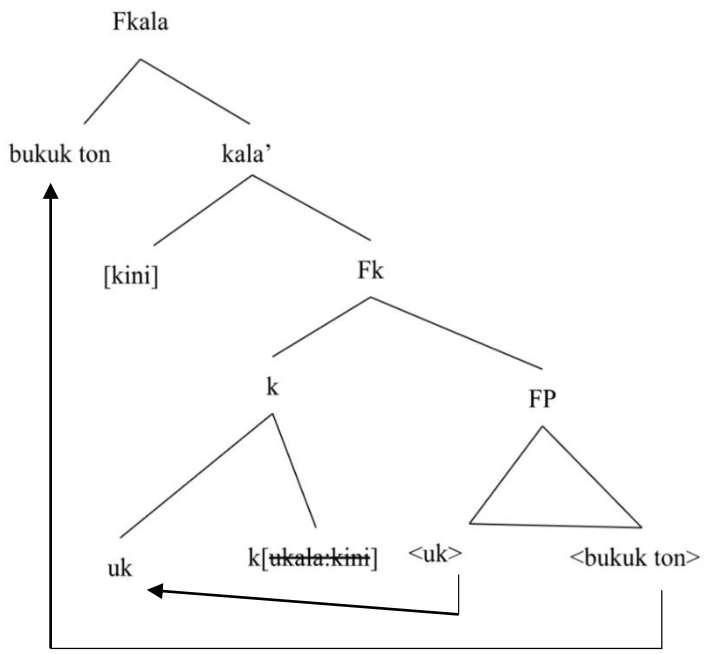
Bagi fungsi pemilikan, KGND bahasa Kintaq mempunyai peraturan yang sama seperti bahasa Melayu, namun wujud fenomena jantina dalam bahasa orang asli ini. Penggunaan pemilikan bagi KGND ketiga tunggal *uk* mempunyai ciri persamaan seperti bahasa Melayu, yang menunjukkan KGND digunakan selepas KN seperti dalam rajah pohon bagi ayat (11). Walau bagaimanapun, apabila pemilik tersebut diketahui jantinanya, maka pergerakan ayat tersebut boleh dianalisis seperti yang digambarkan melalui Rajah 13 dan Rajah 14.

Bagi Rajah 13, pemilik bagi ayat tersebut diketahui jantinanya merupakan seorang lelaki, maka KGND ketiga *uk* digantikan kepada *temekal* yang membawa maksud "lelaki". Sekiranya pemiliknya merupakan seorang wanita, maka leksikal tersebut digantikan kepada leksikal *mabey* yang membawa maksud "perempuan", seperti rajah pohon 14. Fenomena ini menunjukkan bahawa dalam bahasa Kintaq, wujud leksikal yang boleh membawa fitur KGND ketiga tunggal apabila digunakan untuk menunjukkan pemilikan dalam bahasa tersebut.

Merumuskan perbincangan di atas, KGND bagi bahasa Kintaq juga mempunyai pengkelasan pertama, kedua dan ketiga. Bagi KGND pertama, *yek* digunakan bagi penggunaan subjek tunggal yang boleh berfungsi sebagai *saya* dalam ayat yang boleh menjadi subjek, objek, mahupun pemilik berdasarkan posisi kedudukan KGND tersebut. *Yam* pula digunakan untuk memberikan maklumat bahawa pelaku dalam ayat merupakan subjek "kita" sekiranya berada pada posisi subjek, manakala "kami" sekiranya berada pada posisi pemilik dalam struktur ayat bahasa Kintaq. Dalam KGND pertama juga wujud perubahan kata bilangan kepada kata ganti nama diri seperti *bom jenuh* yang asalnya merupakan "ramai", namun apabila digandingkan bersama *jenuh*, fungsi *bom jenuh* berubah menjadi "kami semua" yang turut menjadi KGND pertama jamak.

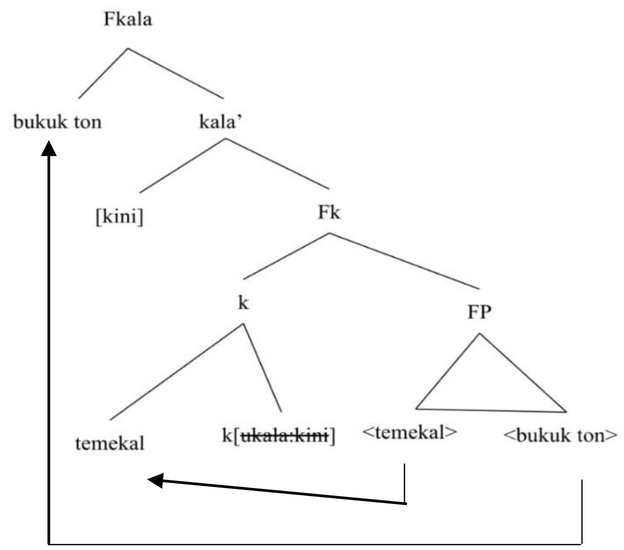
Rajah 12

Rajah Pohon Ayat (15)



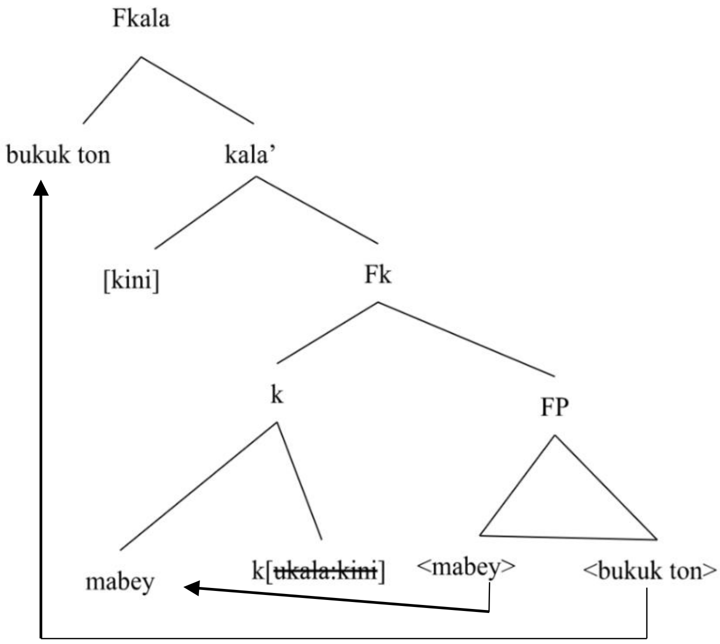
Rajah 13

Rajah Pohon Ayat (18)



Rajah 14

Rajah Pohon Ayat (19)



Bagi KGND kedua pula, *mu* dan *uk* merupakan penggunaan bagi "kamu" dalam bahasa Kintaq yang berperanan sebagai subjek dalam ayat. Walau bagaimanapun, berbeza dengan *mu, uk* memerlukan penjodoh bilangan *belak* bermaksud "seorang" untuk berfungsi sebagai subjek bagi KGND kedua, kerana sekiranya *uk* tidak dihadiri dengak penjodoh bilangan *belak*, maka fungsi *uk* berubah kepada KGND ketiga. Bagi KGND kedua jamak pula, tiada leksikal khusus yang digunakan bagi penutur bahasa Kintaq, namun mereka menggunakan leksikal *hemik jenuh* yang membawa maksud "ramai orang" untuk menunjukkan bahawa pelaku pada ayat yang digunakan ialah pelaku orang kedua.

Bagi KGND ketiga pula, *uk* merupakan leksikal "dia" yang digunakan dalam bahasa Kintaq sebagai subjek, objek mahupun pemilik bergantung kepada posisi leksikal tersebut. Bagi kategori jamak, *gin* dan *wih* kedua-duanya digunakan oleh penutur Kintaq bagi membawa maksud jamak, *gin* ialah tiga orang jumlahnya, manakala *wih* pula membawa kepada jumlah lebih daripada tiga. Keunikan dalam bahasa Kintaq terletak pada penggunaan pemilik tunggal *uk* yang berubah mengikut jantina yang dimaksudkan dalam ayat. Sekiranya jantina pemilik ialah lelaki, maka leksikal yang digunakan ialah *temekal*, manakala *mabey* digunakan untuk jantina perempuan. Leksikal *uk* digunakan sekiranya jantina pemilik tidak diketahui oleh penutur.

Rumusnya, penggunaan KGND bahasa Kintaq mempunyai leksikal yang tersendiri bergantung kepada situasi dan keselesaan penutur untuk menyampaikan maklumat dalam ayat dengan baik dan difahami maksudnya oleh penutur. Oleh yang demikian, penggunaan leksikal KGND yang digunakan oleh penutur Kintaq berubah mengikut konteks dalam ayat agar setiap maklumat yang ingin disampaikan mempunyai makna yang tepat dan tidak menjadi nipurnama. Jadual 1 menyimpulkan himpunan KGND dalam bahasa Kintaq.

Jadual 1

Jenis dan fungsi setiap KGND dalam bahasa Kintaq

Jenis KGND	Leksikal KGND	KGND Kintaq	Subjek	Objek	Makna kepunyaan
Pertama	Saya	yek	/	/	/
	Kami	yam	/	/	/
Kedua	Awak/Kau	mu	/	/	/
	Kamu seorang	uk belak	/		
Ketiga	Dia	uk	/	/	/
	Mereka	Gin	/	/	/

Perbincangan

Bahasa Kintaq menggunakan KGND untuk menunjukkan kewujudan subjek dalam ayat bagi memastikan ayat yang dibina mempunyai pelaku agar tidak kedengaran janggal sekiranya didengari oleh pendengar. Jika dilihat pada Rajah 8, setiap leksikal KGND dalam bahasa Kintaq mempunyai fungsi yang tersendiri dan perlu hadir pada posisi yang tepat agar penggunaannya tidak dianggap janggal. Posisi subjek, objek dan kepunyaan menunjukkan bahawa kasus KGND boleh berubah fungsi berdasarkan kedudukannya dalam ayat. Walau bagaimanapun, beberapa leksikal KGND bahasa Kintaq mempunyai syarat yang memastikan mereka tidak boleh hadir pada posisi tertentu kerana sekiranya leksikal tersebut berada pada posisi yang tidak sepatutnya, maka pendengar tidak dapat memahami maklumat ayat dan ayat akan dianggap janggal serta tidak gramatis.

Meskipun terdapat leksikal bahasa Kintaq yang mempunyai persamaannya dengan bahasa Melayu, namun ada beberapa leksikal bahasa Melayu yang tidak ada persamaannya dalam bahasa Kintaq yang diterjemah secara langsung, tetapi memerlukan gabungan kata bilangan untuk berfungsi sebagai KGND. Gabungan *bom jenuh* yang kedua-duanya merupakan kata bilangan "ramai" dan "semua" masing-masing, namun apabila digabungkan, menjadi KGND pertama "kita", dan sekiranya gabungan *jenuh hemik* pula akan menjadi "kamu semua" bagi jamak KGND kedua. Namun begitu, gabungan kata bilangan ini adalah gabungan leksikal yang berasingan yang menunjukkan bilangan apabila digabungkan dengan KGND. Isu ini menjadi persoalan kepada kajian ini, sama ada kerana ketiadaan leksikal khusus bagi jamak KGND kedua atau leksikal tersebut telah pupus ekoran daripada kepupusan penutur asli bahasa Kintaq, justeru perlu untuk dijawab bagi kajian yang akan datang. Setiap bahasa mempunyai leksikal KGND yang khusus untuk jenis KGND, maka kewujudan leksikal KGND mengikut jenis bagi bahasa Kintaq juga tidak mustahil wujud, namun sudah dilupakan atau jarang digunakan oleh penutur bahasa Kintaq ekoran daripada peminjaman kata daripada bahasa Melayu yang menyerap masuk ke dalam bahasa mereka. Tambahan juga, menurut responden, penggunaan isyarat badan juga sudah cukup untuk menunjukkan kepada pendengar mengenai pelaku bagi ayat yang dituturkan. Sehubungan dengan itu, penggunaan leksikal-leksikal yang sama juga berubah fungsinya mengikut rujukan yang telah ditunjukkan oleh penutur bagi memudahkan maklumat yang ingin disampaikan boleh difahami oleh pendengar (Sultan & Suhaimi, 2012).

Tambahan pula, hasil kajian ini mendapati bahawa penggunaan leksikal "pergi" adalah berbeza sama ada KGND yang digunakan adalah KGND pertama atau kedua. Hal ini dikatakan demikian kerana, dalam KGND pertama, leksikal *chup* digunakan manakala KGND kedua pula telah menggunakan leksikal *chip*. Walaupun kedua-duanya mempunyai maksud yang sama tetapi varian yang berbeza, ini dapat membuktikan bahawa bahasa Kintaq boleh diterokai dengan lebih mendalam lagi terutamanya berhubung dengan varian-varian yang ada berdasarkan leksikal-leksikal yang selalu diguna pakai.

Penggunaan bahasa Kintaq juga banyak menggunakan singkatan dalam bahasa mereka, seperti yang berlaku pada bahasa Bateq, yang diulas oleh Ropiah et al. (2023), iaitu satu leksikal bahasa Bateq berubah fungsi apabila berada pada posisi yang berbeza. Oleh yang demikian, fenomena tersebut boleh juga berlaku dalam bahasa Kintaq kerana bahasa Kintaq juga merupakan golongan bahasa daripada suku kaum Negrito. Fenomena pengulangan leksikal juga turut berlaku dalam komuniti orang asli Negrito yang lain, berdasarkan temu bual bersama responden yang membenarkan leksikal tersebut berubah fungsinya sekiranya digunakan pada posisi yang berbeza dalam binaan ayat. Sehubungan dengan itu, kajian mengenai pengulangan leksikal dalam bahasa Orang asli juga perlu digiatkan oleh para pengkaji bahasa untuk mengetahui syarat dan peraturan yang membolehkan satu leksikal dalam bahasa orang asli yang boleh digunakan berulang kali dalam ayat namun berubah fungsinya sekiranya berada pada posisi berbeza. Fenomena ini menunjukkan bahawa keunikan bahasa orang asli Negrito sendiri yang membolehkan penuturnya untuk menggunakan leksikal yang sama dalam ayat, dalam masa yang sama, membina ayat yang singkat, namun mampu untuk memberikan maklumat yang lengkap kepada pendengar berdasarkan situasi dan isyarat yang diberikan oleh penutur. Maka, kajian ini diharapkan dapat dijadikan panduan kepada kajian bahasa orang asli kelak.

Kesimpulan

Kesimpulannya, kajian ini bertujuan mengkaji cara KGN digunakan dalam ayat bahasa Kintaq berdasarkan pendekatan Program Minimalis. Dengan menganalisis data linguistik primer suku Kintaq, penemuan mendedahkan persamaan dalam evolusi KGN, seperti anjakan semantik dan perubahan sintaksis dari semasa ke semasa, menyerlahkan sifat dinamik bahasa. Penerangan terhadap penemuan ini telah dijelaskan menerusi Program Minimalis yang menganalisis pembentukan ayat yang mengandungi KGN sehingga ke peringkat asas. Setiap KGN dalam bahasa Kintaq juga mempunyai kasus-kasus tersendiri apabila berada dalam posisi tertentu, sama ada nominatif, akusatif atau genetif, sama seperti kajian yang dijalankan oleh Sultan dan Yusuf (2023) mengenai kajian KGN orang asli Mah Meri. Walau bagaimanapun, kajian ini menumpukan kepada suku Kintaq sahaja. Oleh sebab itu, kajian masa hadapan boleh mengembangkan skop kajian dengan menjalankan kerja lapangan ke atas suku-

suku lain orang asli Negrito yang terdapat di Semenanjung Malaysia dan seterusnya melakukan perbandingan ke atas suku-suku yang terpilih.

Melangkah ke hadapan, kajian yang akan datang boleh meneroka kesan hubungan bahasa, dasar dan penghantaran budaya terhadap evolusi KGN. Penggunaan teori Program Minimalis merupakan antara pendekatan yang boleh memberikan gambaran yang jelas mengenai pembentukan ayat bahasa Kintaq yang membolehkan para pengkaji akan datang untuk menganalisis bahasa-bahasa orang asli Negrito yang lain. Pendekatan ini telah membantu pengkaji untuk merungkaikan ayat-ayat tersebut dengan memberikan label yang bersesuaian kepada leksikal-leksikal yang hadir dalam bahasa Kintaq. Kajian perbandingan yang memfokus kepada ciri linguistik tertentu mungkin memberikan pandangan yang lebih mendalam tentang mekanisme perubahan bahasa. Menangani cadangan ini boleh meningkatkan pemahaman kita tentang tatabahasa KGN dan menyumbang kepada teori evolusi dan perubahan bahasa yang lebih luas.

Kelulusan Etika

Kajian penyelidikan ini telah mendapat kelulusan etika daripada Jawatankuasa Etika Penyelidikan, Universiti Kebangsaan Malaysia dengan rujukannya yang bernombor UKM PPI/111/8/JEP-2022-426. Protokol kajian telah disemak dan dianggap mematuhi piawaian etika untuk penyelidikan yang melibatkan responden manusia. Semua prosedur yang melibatkan responden manusia telah dijalankan mengikut piawaian etika dalam memastikan perlindungan hak, kerahsiaan dan kesejahteraan responden sepanjang proses penyelidikan.

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UNVEILING STUDENTS' VOICE ON LECTURERS' CLASSROOM MANAGEMENT IN VIRTUAL ENGLISH MEDIUM INSTRUCTION

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Abstract

A private university in Indonesia has implemented English Medium Instruction (EMI) classes in order to support internationalisation programmes. This policy entails using English as the instructional language in the classroom. This case study examined the teaching practices of seven content lecturers from the Biology, Physics, Mathematics, and Primary Education Departments in EMI classes, focusing on classroom management. Additionally, it explored 208 students' perceptions in this setting. Data were collected through class observations, questionnaires, and interviews. The findings suggest that effective classroom management by lecturers leads to increased student participation and engagement. The lecturers employed various organisational, teaching management, and teacher-student relationship strategies to manage their classrooms. These findings provide valuable insights into maximising classroom management in an EMI setting, which can enhance critical reflection and support the implementation of EMI classes. The study also highlighted the students' perception of participation and interaction in the class, confirming that lecturers who lack effective teaching skills and multimodal strategies result in passive learning among students.

Keywords: English medium of instruction; classroom management; practices; perception; internationalisation

Introduction

Internationalisation of higher education (IoHE) programmes has gained prominence as a means of addressing global concerns and meeting the demands of the academic community. Many developing countries, including Indonesia, have made this a high priority, forming international alliances with institutions throughout the world to improve educational and research standards. The Ministry of Education and Culture has also played an important role in promoting IoHE by establishing a Key Performance Indicator strategy to track the progress of the *Merdeka Belajar-Kampus Merdeka* plan (Kementerian Pendidikan, Kebudayaan, Riset, & Teknologi, 2023). The four Key Performance Indicators for internationalisation are student experiences off-campus, lecturer activities off-campus, study programmes in partnership with world-class partners, and international quality study programmes. The *Kampus Merdeka* policy also emphasises building relationships with universities, research institutions, and businesses globally to enhance the quality and relevance of higher education (Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi, 2023). International collaborations are expected to promote English language ability among staff and students, hence supporting the implementation of English Medium Instruction (EMI) in the classroom.

Since 2020, a private institution in Indonesia has implemented a Faculty and Student Mobility Programme as part of its internationalisation efforts. The programme includes guest lecturers, student exchanges, and international credit transfers. In the International Credit Transfer programme, content-subject courses that have been selected are taught in English. Implementing EMI is crucial for promoting internationalisation, particularly in the context of International Credit Transfer programmes. Madhavan (2016) and Galloway et al., (2017) emphasised that English is typically not spoken by the majority of the population or as their first language (L1). According to Lamb et al., (2021) students and lecturers do not know how to adapt to EMI. Many higher education institutions appear to be implementing EMI without official policy declarations, staff or student training, systematic quality checks, or even management awareness.

Previous researchers have studied the implementation and policy (Cahyono & Deliany, 2021; Fitria, 2020; Fitriati & Rata, 2020; Ibrahim, 2001; Kusmayanti et al., 2017; Melati & Arief, 2018; Muttaqin, 2020; Rahmaniah, 2019; Sadiq, 2022; Simbolon et al., 2020; Sukardi et al., 2021; Talaue & Kim, 2020); stakeholders, lecturers, and students' perceptions (Dewi, 2017; Floris, 2014; Haryanto, 2012; Nst & Fithriani, 2023; Oktaviani, 2019, 2021; Puspitasari & Ishak, 2023; Setoningsih, 2022; Simbolon, 2016, 2017, 2018; Sudana et al., 2023; Wayan & Despitasari, 2021), and students' English proficiency (Lestari, 2020; Sultan et al., 2012). To date, however, the majority of research has focused on how students perceive offline learning; little research has been done on how lecturers manage the classroom or how students perceive online learning.

This study examined the teaching practices of seven content lecturers from the Biology, Physics, Mathematics, and Primary Education Departments in EMI classes, focusing on classroom management. The research questions are:

(1) How do lecturers handle online classrooms in an EMI context?

(2) How do students perceive their online classroom experience in an EMI context?

Literature Review

English Medium Instruction

Wei and Hricko (2021) stated that there are numerous aspects of the teaching-learning process to consider in EMI classrooms, such as curricular objectives, courses taken by students, teachers' strategies, and classroom management. Several studies revealed that the lecturing style in EMI classes was generally more monologic or teacher-centred (Lo & Macaro, 2015). According to studies conducted across Europe, lecturers frequently lack adequate oral communication abilities in English (Dimova & Kling, 2018; Helm & Guarda, 2015; Jensen & Thøgersen, 2011; Sercu, 2004; Vinke et al., 1998), while their lack of confidence hinders them from engaging students in lengthy verbal conversations (Llurda, 2005).

In addition, Chow (2018) noted that the problems of EMI in Taiwan have shown that EMI courses reduce opportunities for class debate and raise the many obstacles that teachers face in the classroom. Furthermore, in the Indonesian setting, the lack of support programmes for students with limited English abilities, the lecturers' lack of EMI pedagogical competency, and the hefty loads affect learning demotivation (Al Hakim, 2021). To summarise, language obstacles in EMI classrooms affect students' participation and engagement; thus, this research seeks to determine whether the results are similar in different settings and sites.

Classroom Management

Brophy (2006) defines classroom management as the process of developing and maintaining a positive learning environment for effective education. Furthermore, Evertson and Weinstein (2006) argued that classroom activities and practices should support academic and social-emotional development, with a focus on the teacher's role and the relationship between classroom management strategies and various students' learning objectives. Jones and Jones (2012) and Marzano and Marzano (2003) have demonstrated how ineffective classroom management can impede successful teaching and learning. Shawer (2006) classified classroom management into four components: organisational approach, instructional management strategy, teacher-student interaction, and teacher sanctions or reward (consequences) method.

The study of classroom management in an EMI setting has been conducted, and it raises various concerns for lecturers, potentially raising stress, tension, and discomfort. It is due to a lack of appropriate training in EMI pedagogy (Macaro et al., 2020), as well as limited English proficiency (Alhassan, 2021; Lasagabaster & Doiz, 2021; Prabjandee & Nilpirom, 2022). Another study by Kaur (2020) discovered that the obstacles in the classroom are students' passiveness, low participation, and code switching. Furthermore, there is a link between teachers' educational approaches, classroom climate, and student engagement. A favourable classroom environment can increase student involvement (Li, 2024). Also, Pun and Macaro (2019) implied that a lack of connection between the teachers and the students results in inactivity.

Methods

This study used a qualitative research approach with a case study design. Purposive, judgemental, or information-oriented sampling techniques are often utilised to acquire a deeper understanding of the phenomenon through classroom observation and participants' perspectives (Creswell, 2013; Kumar, 2018; Lodico et al., 2011). The study was conducted at UNIPMA, an Indonesian private university that has been steadily implementing the EMI for ICT programme over the last three years.

This research was carried out in the departments of Biology, Mathematics, Physics, and Primary Education during the first semester of the academic year 2022-2023. The study included seven lecturers: Two from Biology, one from Physics, one from Mathematics, and three from Primary Education, as well as 208 students, 169 from Indonesia and 39 from the Philippines. The Indonesian students have an average TOEFL-like score of around 410, while the Filipino students have a score of 505.

Lecturers' and Students' Profile

Table 1 provides a complete overview of the lecturers' profiles, including their backgrounds and expertise teaching content subjects utilising EMI. Only four of the seven female respondents had one-year experience as EMI lecturers, while the rest were fresh to the EMI classroom environment.

Table 1
Lecturers' Demographic Information

No	Lecturer	Gender	Subject	Department	Years of experience in teaching content-subject using English
1	NK	F	General Ecology	Biology	1
2	P	F	Biochemistry and Applied Biology	Biology	1
3	TM	F	Capita Selecta of Theoretical Physics	Physics	1
4	DP	F	Technology for Teaching and Learning	Primary Education	-
5	CK	F	Advance Social Science in Primary School	Primary Education	-

6	IL	F	Advance Science in Primary School	Primary Education	-
7	RL	F	Assessment on Mathematics Learning	Mathematics Education	1

The students' demographic information is shown in Table 2.

Table 2
Students' Demographic Information

No	Department	Number of Indonesian students	Number of Filipino students	Total number of students
1	Primary	121	21	142
2	Physics	8	2	10
3	Biology	26	12	38
4	Mathematics	14	4	18
			Total number of students	208

The online or virtual teaching and learning process used both synchronous and asynchronous methods. Synchronous lectures were delivered using Google Meet and Zoom, while asynchronous lectures were made with a Learning Management System, called e-LMA and WhatsApp. E-LMA allowed lecturers to post materials, resources, and quizzes, start forum conversations, and assign homework.

Individual interviews and classroom observations were used to elaborate on classroom management. Document observation was carried out using the e-LMA and a video-based teaching-learning process. Each lecturer recorded three videos, each lasting 45 minutes to 60 minutes. The observation of lecturers' classroom management was studied using Shawer's (2006) idea of organising strategy, management strategy, teacher-student interaction, and penalty or reward strategy.

The lecturers were then interviewed one-on-one using a semi-structured format. The participants were invited to relate their experiences teaching in an EMI class, including their ideas on class management (preparation, in-class activities, and evaluation), factors that cause changes in classroom climate, and why some lecturers manage the class efficiently. The interviewer used a protocol to ensure that all participants were asked the same subjects and to keep the conversation flowing. Individual interviews were conducted via Google Meet and in Bahasa Indonesia to avoid misunderstandings. The interviews were fully recorded, transcribed, translated into English, interpreted, and analysed (Creswell & Poth, 2016). The interview data were analysed thematically (Bryman, 2008) with NVivo 12. All procedures involved were carried out with ethical permission in compliance with the ethical guidelines provided by the university ethics committee.

Results

Classroom Management

Classroom observation and interview can provide insight into lecturers' classroom management. Classroom observation aims to provide a detailed picture of how seven lecturers managed their online classrooms in an EMI setting. This observation was carried out using video recordings, with the researcher monitoring each lecturer's techniques for two distinct sessions lasting one to two hours. The observation and interview procedure were driven by a set of indicators that evaluated classroom management practices in four major areas: Organisation, teaching management, teacher-student relationships, and the use of consequences (rewards or punishments).

Table 3
The Frequency of Classroom Management Implementation

Classroom Management Strategy	Lecturer (initials)						
	NK	P	TM	DP	CK	IL	RL
Organising strategy	46	38	32	30	26	16	36
Teaching management strategy	5	4	4	5	3	3	3
Teacher-student relationship	30	23	21	15	6	4	10
Teacher sanctions or rewards	2	2	1	1	1	1	1

Table 3 shows the frequency with which lecturers control the classroom based on their instructional activities connected to the classroom management strategy indicator in each meeting.

Organising Strategy

Organising strategy that covers seating arrangement, norms and routines in all classes observed are shown in Table 4. In online mode, students participated in class by following two rules: they had to turn on their camera and mute or unmute their microphone as needed to give, ask, reply, or present information. As a result, the frequency of seating arrangement was zero. Furthermore, lecturers consistently adhered to comparable conventions and routine behaviours, such as greeting students, obtaining permission before releasing presentation slides, delivering responses and feedback to students and ending the session. However, lecturer NK used norms and routine tasks more frequently than the other instructors, as she encouraged student engagement by asking questions and providing comments. Here is an example of the routines followed by NK and IL.

Table 4
The Frequency of Norms and Routines Implementation

No	Organising Strategy	Lecturer						
		NK	P	TM	DP	CK	IL	RL
1	Seating arrangement	0	0	0	0	0	0	0
2	Norms and routines	46	38	32	30	26	16	36

Excerpt 1 (NK General Ecology-Biology Education Department)

NK : Good; how, how do you feel today?
SS : Very good, ibu.
NK : I will check the presence list.
NK : Before I open PPT, I would like to show the video.
NK : Could you hear the voice?
SS : Yes ma'am, it is clear.
NK : Ok, now please give resume.
S : (*An Indonesian student presented*)
NK : Ok Awaliyah, thank you.
S : My pleasure, ibu.
NK : Ok Shandie, Now is your turn.
S : Alright, ibu.
NK : Okay, please give resume.
S : *(An Indonesian student presented*)
NK : Yes, it is very complete from your opinion. Okay, thank you for great explanation.
NK : Good answer, Patricia, is there any question?

Excerpt 1 (verbatim) shows evidence that teaching practice exhibited dynamic classroom engagement, as the lecturer proactively collaborated with students. Even during the initial and concluding moments, she prompted her students to actively participate in the main activities by posing and answering questions. Furthermore, she praised their responses, acknowledging the challenges faced during online learning, which had reduced students' engagement. Consequently, she emphasised strategies to enhance student interaction during the teaching-learning process. Excerpt 2 (verbatim) was taken from the lowest norms and routine activities frequency.

Excerpt 2 (IL-Applied Science in Primary ED-Primary Education Department)

IL : Good morning, how are you today?
SS : Good morning, ma'am.
IL : Do you have questions?

SS : (Students kept silent for a while) and one of them said No, ma'am.
IL : Can you give an example?
S : Using Canva as one media in teaching.
IL : Okay now, please group 1 present.
: Thank you; see you today, see you next meeting

During a classroom observation, it was noted that the students were not actively participating in the class meeting. After the lecturer greeted the students, she asked a group to present the selected topic. The presentation lasted around 20-30 minutes. Following the presentation, the lecturer provided reinforcement, facilitated questions, and concluded the meeting. The lack of interaction and adherence to the norms also affected the classroom practice as the lecturer relied solely on presentation techniques in teaching. Consequently, there was little feedback from other students.

Teaching Management

The teaching management approach addresses the activities, techniques, and procedures employed by lecturers and students. Despite variances in the teaching-learning process during in-class activities, observations by lecturers NK, P, TM, and DP showed a variety of interesting classroom activities. Excerpts 3 and 4 are samples (verbatim) of how lecturers P and NK managed their classes. In the opening session, the lecturers explained the lesson using the inquiry method (showed the relevant picture and video of the material) and then asked questions to students. This method allowed students to be interested in joining the class and be ready to participate.

Table 5
The Frequency of Teaching Management Strategies

Teaching management strategies	Lecturer						
	NK	P	TM	DP	CK	IL	RL
Activities	5	4	4	5	3	3	3

Excerpt 3 (P-Applied Biology-Biology Education Department)
P : And today's meeting, we will learn about, Applied Biology. What is Applied Biology?
S : It is the use of microorganisms in specific process, such as fermentation.
P : Please see this picture, and give your comment.

Excerpt 4 (NK- General Ecology-Biology Education Department
NK : Before we continue our material, I will show one of Indonesian video culture. Could you see it? Is it audible?
S : Yes ma'am, it is audible.
NK : What do you think, Philippines students, Patricia, Shandy? Would you please share one of Philippines' culture?

SS : Yes Ibu, one of Philippines culture is food, we called it *tortang talong* or eggplant omelette. (*Patricia described it)*

NK : Okay, before we understand more about ecology, I will show you one video from Indonesia and please give resume.

Excepts 5 and 6 (verbatim) show that both lecturers interacted with students regarding the subject, and NK asked about their cultures before beginning the lesson. Following the interview, she stated that in every meeting, she would ask Indonesian and Filipino students about their cultures in turn. The goal was to promote cross-cultural understanding.

For the main activities, lecturers P, TM, and DP explained the material, and on each slide, the lecturers checked students' understanding by asking a question. Excerpts 5 to 7 are the samples of the conversations.

Excerpt 5 (P- Applied Biology)

P : Anyone knows about the different of microscope electron? Please mention two types of electron microscope, Ok perhaps Neil, Selly, Ajeng, Elly? Oh ok, I will type it.

S : Transmission electron Microscope, TEM and Scanning electron Miscroscope, SEM, ma'am.

P : Very good answer, thank you *mbak* Selly, to be more understood, I will show the image result of SEL and TEM.

P : What about Penicillin? Anyone knows?

S : Ma'am, it is a medication used to treat infections, which is produced by fungus.

P : Very good Lovely, so Lovely correlate Biology with pandemic condition today. I also prepare material by using Q-Barcode, ok now, please scan the barcode.

Excerpt 6 (TM-Capita Selecta-Physics Education)

TM : Okay, thank you mas Huda for your presentation. Now, let's go to menti.com. There is a quiz.

TM : Hello Anne, have you filled out the questionnaire in Menti? What is your answer? Can I see in this screen?

S : Yes *ibu*.

TM : Okay, let's discuss the answer.

Excerpt 7 (DP-Technology for Teaching and Learning)

DP : Today's topic is innovation, please give your opinion about innovation, and please you can write in chat room.

DP : Why do we need innovation in process learning at class?

SS : To make students not feel bored, ibu.

DP : Class, after you read article about digital literacy, let's go to Padlet to see your understanding in digital literacy concept.

Excerpts 5, 6 and 7 (verbatim) showed that three lecturers attempted to ask students questions to ensure that they understood and developed their ideas. They also experimented with using media in the classroom, such as QR codes, Menti, and Padlets. The other lecturers, IL, CK, and RL, frequently explained topics using PowerPoint, provided little feedback, and did not employ a variety of media.

During the final session, the lecturer instructed the students to complete an assignment or quiz on e-LMA. However, for lecturers IL, CK, and RL, their classes only consisted of student presentations, lecturer feedback, and discussions.

Excerpt 8 (CK- Advance Social Science-Primary Education Department)

CK : Ok thank you very much for the presentation of group today, and today our topic is lesson planning and evaluation.

CK : Sorry for last week I didn't give you material, today I will give material about it.

CK : Ok about lesson planning in social studies. Ok I will start the presentation again.

Excerpt 9 (RL-Assessment on Mathematics Learning-Mathematics Education)

RL : I am sorry, I have not made PPT presentation, but I will explain directly, so that, please pay attention.

RL : Students, after we get result about analysis instrument, has the process complete? Yes, or not? Please someone help me answer my question.

S : Yes *ibu*, I have done.

RL : Yes, Joseph please, can you give opinion? Why the process is not complete? Please repeat again because your connection was lost.

RL : Thank you, Joseph, good answer, (then explained the answer) Maybe some of you can mention about four criteria, to make the instrument visible to use.

Teacher-Student Relationship

There were five indicators to evaluate the teacher-student relationship: providing applause or praise, motivating, making jokes, addressing students by their names, and avoiding negative responses.

Table 6

The Frequency of Teacher-Student Relationship

No	Teacher-student Relationship	Lecturer						
		NK	P	TM	DP	CK	IL	RL
1	Give applause/ praise	15	9	4	4	3	3	5
2	Motivate	2	2	2	5	1	1	1
3	Make a joke	0	0	0	0	0	0	0

4	Call students by their name	15	14	17	6	4	3	5
5	Do not give negative response	0	0	0	0	0	0	0

The highest percentage in giving praise was NK. She said: "Yes, I like giving praise, it can improve student's motivation in learning and having good self-confidence". It is worth noting that the opinion presented is consistent with the perspectives of other lecturers. Furthermore, the three lecturers (NK, P, and TM) used two motivational strategies: Vocal encouragement and extra point rewards for active students. The lecturers also added that they prefer addressing students by name for a variety of reasons, including assuring comprehension, increasing engagement, and instilling a sense of pride. However, they found it difficult to make jokes in English because they were afraid that it would be improper and awkward.

Punishment and Reward

The lecturers employed a variety of strategies to reduce disruptive behaviour and promote discipline among their students, as shown in Table 7.

Table 7
The Frequency of Punishment and Reward

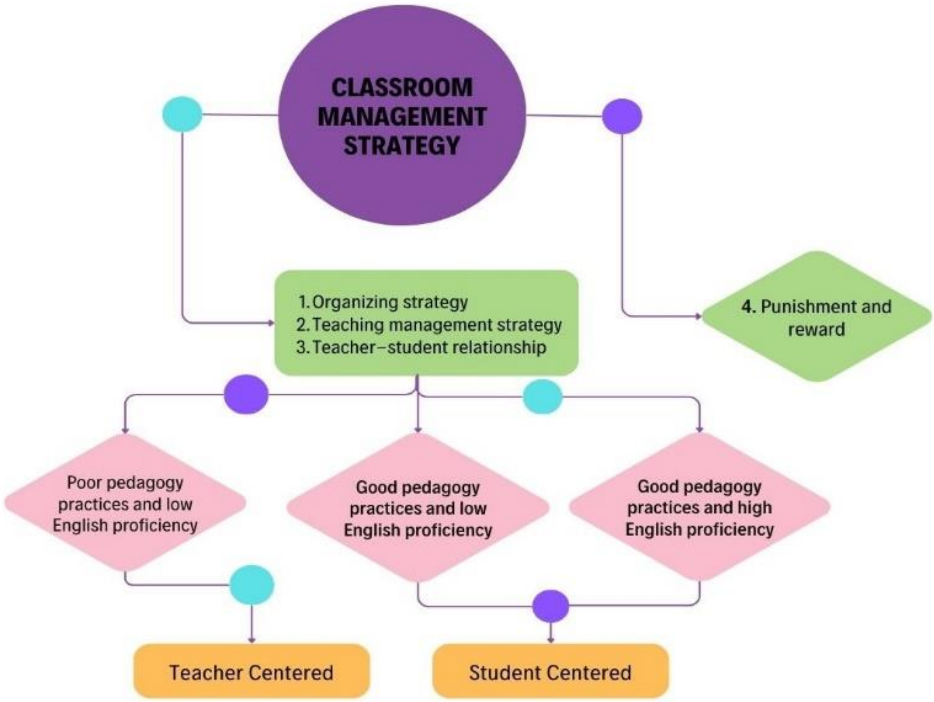
No	Punishment and reward	Lecturer						
		NK	P	TM	DP	CK	IL	RL
1	Punishment	0	0	0	0	0	0	0
2	Reward	3	2	1	1	1	1	1

Based on the findings, no lecturers appeared to have imposed penalties on students. Only two of the seven teachers offered students two different types of rewards. These include assigning an additional score for student participation and providing additional time for students who had technical or network challenges when delivering their assignments. They concluded that this was part of the reward system.

In addition, based on the classroom management displayed and analysed above, diverse classroom management methods utilised by lecturers, resulting shifts towards either teacher-centred or student-centred approach. The information is presented in Figure 1.

Consequently, it can be inferred that in managing the classroom, particularly with regard to organising, management, and teacher-student relationships, three lecturers with limited proficiency in English and low pedagogical skills were more likely to adopt a teacher-centred approach. On the other hand, one lecturer with good pedagogical skills but low English proficiency, as well as three lecturers with good pedagogical and English skills, adopted a student-centred approach. This framework shows how different teaching methods and lecturers' competency levels affect classroom management strategies.

Figure 1
Classroom Management Strategy Implementation



Students' Perception

The online classroom management practised by lecturers has an effect on students' participation. As evidenced by the passive demeanour of students in class, they reported feeling unmotivated to take an active role in the lesson. Table 8 represents the findings from the questionnaire.

Table 8
Students' Perception of Their Participation

Statement	Indonesians				Filipinos			
	SD	D	A	SA	SD	D	A	SD
I have difficulty in expressing content knowledge because of limited vocabulary and low English Proficiency	9.7%	34.9 %	41.9%	13.4%	94.8%	5.12%	0%	0%
I have difficulty to participate	13.4%	23.1 %	48.4%	15.1%	97.4%	2.6%	0%	0%

actively because of language barrier								
I have difficulty in communicating with lecturer and classmates	7.5%	20.9 %	49.2%	22.5%	89.7%	10.2%	0%	0%

Based on Table 8, approximately 48% of Indonesian students reported having difficulty participating in the classroom due to limited English proficiency. Nevertheless, their attitudes towards the lecturers' management were affected by the teaching strategies and media used by the lecturers. Interestingly, there were no such difficulties reported by Filipino students, and their active participation was observed in the classroom, where they enthusiastically provided feedback, posed questions, and engaged in class discussions.

Table 9 shows that approximately 60% of students found the activities in NK, TM, P, and DP's classes enjoyable. However, students' feedback on CK, IL, and RL was negative due to the lecturers' poor pedagogical skills. In addition, students agreed that teachers frequently praised and called on them by name to participate in class. Due to cultural differences and a lack of confidence in their jokes, online lecturers made fewer jokes than offline lecturers did. Lastly, all students agreed that more than 50% of their peers liked how the lecturers provided rewards as a form of encouragement.

Table 9

Students' Response on Lecturers' Classroom Management

Statement	Lecturer: NK, P, TM, DP				Lecturer: CK,IL,RL			
	SD	D	A	SA	SD	D	A	SA
I like how lecturers organise the classroom	3.8%	7.2%	60%	28.8%	32%	51%	12%	5%
I like the activities in online classroom	9.6%	19%	36%	35%	29%	54%	14%	3%
I like the teacher-student relationship	5.7%	8.6%	59.6%	25.9%	27%	56%	15%	2%
I like the way lecturers give rewards	1.9%	2.8%	68.2%	24%	11%	14%	50%	25%

Discussion

The study revealed that lecturers employ diverse techniques to manage their classrooms during EMI classes. Although all lecturers follow similar practices regarding norms and routine activities, the frequency of these activities varies depending on their teaching strategies. If lecturers utilise various strategies and possess strong communicative skills, it shows that they have good pedagogical skills, and they are more likely to engage frequently in activities such as asking, greeting, and providing feedback. This is consistent with Cicillini and Giacosa's (2020) findings that teachers with high levels of English proficiency and digital skills are more likely to be satisfied with their results and outcomes.

The teachers unanimously agreed that they refrain from making jokes due to their limited language proficiency, which could be considered inappropriate by students from other countries. As a result, the teachers prioritise delivering the material well and employ strategies such as calling students' names, offering praise, and providing verbal motivation to encourage participation. For punishment and reward, the teachers agreed that they do not impose punishment on students as they possess a strong sense of autonomy and responsibility for their tasks and assignments. Furthermore, giving rewards affects students' motivation to participate in the class, which contrasts with Aliakbari and Bazorgmanesh (2015) that Iranian high school EFL teachers preferred management teaching and a focus on the teacher-student relationship over punishment-reward strategies.

The data also revealed that when lecturers have strong pedagogical and English skills, they are more active, use a student-centred approach, and employ a variety of teaching strategies and media, which leads to increased student involvement and participation in class. As for classroom management strategies, only two lecturers with good pedagogical and English skills contributed to student participation and engagement. In addition, two lecturers with good pedagogical but poor English skills managed their class and employed diverse media and teaching strategies, which contributed to student involvement and participation. However, there were three lecturers with limited English proficiency which influenced their pedagogical skills. This consequently affected students' participation and engagement. It is essential that the lecturers utilise various strategies and methods to ensure students' comprehension of the content. Teachers should implement engaging classroom teaching to increase student involvement (Sayeski & Brown, 2011). Furthermore, the findings are congruent with Sahan et al., (2021), who discovered that student-centred teaching practices can boost student involvement in EMI classrooms. Moreover, according to the statistics, high English proficiency greatly aided lecturers in accommodating the classroom, especially if they also possessed good pedagogical skills. Instructors with poor English proficiency but strong pedagogical skills could improve student involvement. As a result, it is not true that a lecturer with poor English skills will result in low classroom engagement; as proved by two lecturers with poor English but good pedagogical skills, they could engage students in learning.

The second research question aims to examine the impact of lecturers' classroom management on students' perception of the EMI online course. The questionnaire results indicated that language barriers were their problem in participating in the classroom. However, based on the classroom data of NK, P, TM, and DP, students could participate actively due to lecturers' approach. The lecturers prepared the materials before teaching began and were quite active in giving questions and instructions. They also used various media in teaching. The descriptive results indicated that although students reported some negative perceptions regarding language barriers, they tried to be active due to the lecturers' preparations and clear instructions. These findings are consistent with previous studies that have found students expressing negative learning experiences when they have problems with language (Chou, 2020; Kohnke & Jarvis, 2023).

One implication of this study is that online EMI lecturers must reach out to students with lower levels of English proficiency, who may be less confident and not ready to communicate in online sessions. Furthermore, lecturers who teach EMI classes must be specially prepared for pedagogical competency in teaching EMI, which includes managing the classroom and executing various modes and methods of instruction through a preparatory programme such as a workshop. The findings of this study build on past research on classroom management and students' views and can be investigated using both qualitative and quantitative methodologies. The findings of this study will guide the deployment of EMI in an online setting.

Conclusion

The study assessed the efficacy of the classroom management techniques utilised by lecturers in EMI classes and the students' perspectives. Class observation, questionnaires, and interviews were employed in this case study. This study shows that classroom management affects student interest and participation. This study found that lecturers' English and pedagogical skills affect classroom management. Lecturers with poor English abilities and low pedagogy skills tend to be teacher-centred, whereas those with great pedagogical skills are student-centred. Effective classroom management, including diversified teaching methods and strong teacher-student connections, boosts student satisfaction and engagement, and affects their perceptions of classroom management.

Based on the findings, professional development programmes must focus on lecturers' English and pedagogical skills. EMI lecturers can improve their efficacy by learning different teaching methods and using digital tools. Universities should maximise English for Specific Purposes courses to help students improve their English language abilities and increase participation in EMI programmes. Further studies should involve a larger and more diversified sample of institutions, departments, and countries to improve generalisability. Comparative research across cultures and education can help explain how EMI classroom management strategies vary widely. Furthermore, longitudinal studies of classroom management methods and student views might reveal the long-term efficacy of different strategies.

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