

**INFLUENCE OF MORPHOLOGICAL,
ORTHOGRAPHIC AND PHONOLOGICAL
AWARENESS IN WRITING SKILLS AMONG
BILINGUAL MALAY-ENGLISH SPEAKERS: A
STUDY OF ADULT (PRE-UNIVERSITY) STUDENTS
IN PENINSULAR MALAYSIA**

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DISCLAIMER

The material presented in this thesis is the original work of the candidate except as acknowledged in the text, and has not been previously submitted, either in part or in whole, for a degree at this or any other University.

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ABSTRACT

This research investigated Malay-English adult bilingual learners' knowledge of morphological awareness, orthographic knowledge and phonological processing, and how these linguistic aspects relate to L2 writing in contrast to vocabulary and grammar knowledge. This research also examined whether morphological awareness, orthographic knowledge and phonological processing can transfer across languages, and thereby support L2 essay writing. The study involved a total of 120 Malay-English adult bilingual learners, aged between 17 and 19 years old. Participants were recruited from a public matriculation centre in Peninsular Malaysia. Participants completed 24-sub-tests (12 sub-tests in each language). These tests comprised timed essay, grammar, vocabulary, morphology, orthography and phonology. The participants' essays were scored using the Jacobs et al. (1981) ESL Composition Profile, with items for other measures being coded as correct/incorrect and producing a total correct score that was either time-limited or not.

Analyses for the first research objective indicated that morphological awareness, orthographic knowledge and phonological processing measures did not predict L2 writing (based on the Jacobs et al. (1981) scale scores) after controlling for vocabulary and grammar. Rather, scores on the L2 writing scale were primarily predicted by vocabulary. Therefore, given the importance of English as L2 in the Malaysian context, vocabulary knowledge would seem to be an important factor to take into account when supporting Malay-English learners, particularly in relation to the quality of their English essays.

Further analyses investigated predictors of the number of words written, the proportion of spelling and grammar errors and repeated words in the English essays. In contrast to the findings from using the Jacobs et al. (1981) scale, these measures of essay writing suggested that Malay-English adult bilingual learners require more than just vocabulary knowledge to produce quality L2 essays. The analyses indicated that the number of words written, the proportion of spelling and grammar errors and repeated words were predicted by the measures of morphological awareness, orthographic knowledge and phonological processing, after controlling for vocabulary and grammar.

The outcomes for the second research objective indicated little evidence of transfer between these two languages; although there was some influence from English grammatical knowledge on essay writing in Malay. However, analyses of the number of words written, the proportion of spelling and grammar errors and the level of repeated words in the L2 essays, suggested

some level of cross-language transfer. The analyses suggested that apart from their L2 basic underlying skills, the Malay-English adult bilingual learners' L2 writing was predicted by L1 morphological awareness and orthographic knowledge.

The results of the study were discussed in terms of the importance of L2 vocabulary knowledge for successful production of L2 essays. However, the discussion also considered the use of the Jacobs et al. (1981) scale, which may place greater importance on vocabulary knowledge for L2 writing. The relationships between additional measures of L2 essay production and morphological awareness, orthographic knowledge and phonological processing is discussed in terms of a model of writing that proposes two general skills of production and composition. Potential transfer of basic skills between languages is a further feature of L2 learning that may need to be added to this model for it to be used in second/additional language learning contexts. Overall, the findings argue for Malay-English adult bilingual learners with advanced vocabulary knowledge to be more likely to write quality English essays, but that basic language skills across orthographies may still need to be considered in theoretical models and potentially in teaching methods.

PRESENTATIONS ARISING FROM THIS THESIS

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LIST OF ABBREVIATIONS

CAH	Contrastive Analysis Hypothesis
CDD	Curriculum Development Division
EFL	English as a Foreign Language
ELT	English Language Teaching
EPU	Economic Planning Unit
ESL	English as a Second Language
FL	Foreign Language
FMM	Federation of Malaysian Manufacturers
GJT	Grammaticality Judgement Test
IELTS	International English Language Testing System
IPA	International Phonetic Alphabet
L1	First Language
L2	Second Language
MBMMBI	To Uphold Bahasa Malaysia and To Strengthen the English Language also known as <i>Memartabatkan Bahasa Malaysia Memperkukuh Bahasa Inggeris</i>
MEC	Malaysian Examination Council
MEF	Malaysian Employers Federation
MNEB	Malaysian National Education Blueprint
MoE	Ministry of Education
MUET	Malaysian University English Test
NC	National Curriculum
PPSMI	Teaching and Learning of Science and Mathematics in English also known as <i>Pengajaran dan Pembelajaran Sains dan Matematik dalam Bahasa Inggeris</i>
PT3	Lower Secondary Evaluation also known as <i>Pentaksiran Tingkatan Tiga</i>
SALT	Systematic Analysis of Language Transcript
SLA	Second Language Acquisition
SM	Standard Malay
SPM	Malaysian Certificate of Education also known as <i>Sijil Pelajaran Malaysia</i>
SPSS	Statistical Package for the Social Sciences
STPM	Malaysian Higher Secondary Certificate Examination also known as <i>Sijil Tinggi Persekolahan Malaysia</i>
SVO	Subject-Verb-Object
TL	Target Language
UPSR	Primary School Achievement Test also known as <i>Ujian Pencapaian Sekolah Rendah</i>

CHAPTER 1

GENERAL INTRODUCTION

1.1 Introduction

This study reports the cross-linguistic influence of morphological awareness, orthographic knowledge and phonological processing in writing skills among Malay-English adult bilingual speakers in Peninsular Malaysia. Measures were developed with the aim of identifying the skills that might be predictive of second language writing, and to determine whether morphological, orthographic and phonological skills can transfer across languages (Malay and English in this case). This chapter highlights the importance of carrying out this study in the Malaysian context, particularly among Malay-English adult bilingual learners. This chapter also provides a brief description of the Malay and English measures (12 sub-tests in each language) administered in this study, the findings from the two objectives, and the organisation of the current study.

1.2 Background of the Study

Being a skilful writer involves processing adequate linguistic knowledge (Hayes, 1996; Kellogg, 1996), and implementing a range of cognitive processes that influence writing performance (Berninger & Winn, 2006). This allows the expression of the propositional content of the written message to be presented correctly, both linguistically and structurally. In addition, the complexity of text composition also involves strategic knowledge of the writing process (Schoonen, van Gelderen, Stoel, Hulstijn, & de Glopper, 2011) that requires the coordination of linguistic and organisational knowledge (Schoonen et al., 2011; Smith, 2011). Therefore, in order to write effectively, a writer requires a number of essential linguistic aspects, namely vocabulary, grammar, morphology, orthography and phonology knowledge (Grabe & Kaplan, 1996; Schoonen et al., 2003; Trapman, van Gelderen, van Schooten, & Hulstijn, 2018). These linguistic features support the writer to develop the multidimensional processes that are involved in writing (Kormos, 2012; Schoonen et al., 2011). Resources required for generating and organising ideas, planning, formulating and reviewing the written product, as well as observing/monitoring the writer's own writing performance (Abbott, Berninger, & Fayol, 2010; Bereiter & Scardamalia, 1987; Flower & Hayes, 1981), would likely be unavailable if required for the processing of more basic linguistic features, such as working out correct orthographic form.

As suggested, writing is a multifaceted skill which taps into several language abilities that greatly influence one's writing performance. Therefore, the complexity of writing not only demands time, but also requires an individual to focus and persevere during the writing process (Kormos, 2012). This is no exception even when writing in a first language (Al-Gharabally, 2015; Maarof & Murat, 2013; Schoonen et al., 2003). For example, Scardamalia (1981) identifies a complex range of cognitive and linguistic skills that occur during the process of writing: "handwriting or typing, spelling, punctuation, word choice, diction, textual connections, purpose, organization, clarity, rhythm, euphony, the possible reactions of possible readers, and so on" (p. 80).

Meanwhile, although learning a second language (L2) involves four basic skills of listening, speaking, reading and writing, L2 writing is considered far more challenging than the other three skills (Fatimawati, 2012; Grabe & Kaplan, 1996; Gustilo & Magno, 2012; Javed, Juan, & Nazil, 2013; Tillema, 2012; Van Weijen, 2009; Younes & Albalawi, 2015). This is because writing skills consist of processes (e.g., discovering and formulating ideas; see Maarof & Murat, 2013) and product (e.g., coherent, fluent and extended pieces of written work; see Nunan, 1999). In other words, L2 writing requires the coordination of both cognitive and linguistic abilities (Maghsoudi & Haririan, 2013; Wong, 2012) in order to tackle the multidimensional processes involved in writing. For example, Hylan (2003) argues that L2 writing largely consists of: "linguistics knowledge and the vocabulary choices, syntactic patterns, and cohesive devices that comprise the essential building blocks of text" (p. 3). Unsworth (2005) has argued that vocabulary, grammar, morphology, orthography and phonology knowledge are the necessary linguistic aspects that assess L2 ability among L2 learners in a global context. Therefore, L2 writers may face further challenges, particularly when skills in the first language (L1) are not well-established (Ghabool, Mariadass, & Kashef, 2012; Schoonen et al., 2003; Silva, 1993). In addition, academics have argued that the fundamental skill that an L2 learner needs to acquire, particularly within an educational context, is writing (Mehrabi, 2014; Yunus & Chien, 2014). This is because ability (or educational achievement) in an L2 is generally assessed based on one's written work (Al-Gharabally, 2015; Pamela, 1991).

There were relatively limited studies on L2 writing up to the 1960s, but many studies published on L2 writing in the 1980s (Mehrabi, 2014; Mukundan, Mahvelati, Din, & Nimehchisalem, 2013; Nelson, 2002; Wang & Wen, 2002). Studies in the field of L2 writing have strived to distinguish and explain the unique processes involved within the L2 writing process by

identifying different methods and tools (e.g., Crossley & McNamara, 2009; Crossley, Weston, McLain Sullivan, & McNamara, 2011; McNamara, Crossley, & McCarthy, 2010), and different strategies to examine L2 writing performance and proficiency (e.g., Berman, 1994; Crossley & McNamara, 2012; Matsumoto, 1995; Smith, 2011).

As stated, writing is regarded as a complex skill regardless of whether one is writing in L1 or L2, because writing involves an array of skills that need to be mastered. Therefore, to decipher the skills that are required to be a proficient writer, writing scholars have proposed models of writing: (i) to understand the process of writing (Alamargot & Chanquoy, 2001; Chenowith & Hayes, 2001; Flower & Hayes, 1981; Hayes, 1996; Hayes & Flower, 1980; Sasaki, 2002; Van den Bergh & Rijlaarsdam, 1996); (ii) writing proficiency (Abbott & Berninger, 1993; Deane, Odendahl, Quinlan, Fowles, Welsh, & Bivens-Tatum, 2008; Grabe & Kaplan, 1996; Sparks et al., 1997); and (iii) the quality of writing output (Breetvelt, Van den Bergh, & Rijlaarsdam, 1994; Gardiner et al., 2012; Stevenson, Schoonen, & De Gloppe, 2006). However, these L2 writing models have been based on L1 writing theories and methods due to the novelty of L2 writing (Myles, 2002; Nelson, 2002; Wong, 2012), despite L2 writing processes being different from L1 writing processes (Mu & Carrington, 2007; Silva, 1993; Wong, 2012). Therefore, it has been argued that models guided by L1 theories may not be applicable to the L2 population (Silva, 2003). This has been further argued by Grabe (2001) who stated, “there is still a lack of a predictive model of the construct of writing that would be directly and transparently useful for research agendas, instructional practices, curricular planning and assessment efforts” (p. 48) and Wong (2013) who posited “currently there is no common theory that governs the field of English as a Second Language (ESL) writing in Malaysia or in other contexts of the world” (p. 212).

In addition to theories and models that were developed to understand the complexities involved in L2 writing, approaches to tackle the difficulties faced by L2 learners when it comes to L2 writing have been proposed. The three predominant approaches frequently used by English Language Teaching (ELT) practitioners to improve L2 learners' writing skills, are: (i) feedback in writing (Brown, 2007; Ferris, 2004; Ferris & Roberts, 2001; Hyland & Hyland, 2006; Lee, 2004); (ii) translating from one's L1 to L2 (Cumming, 1989; Friedlander, 1990; Lay, 1982; Plata-Ramirez, 2012; Qi, 1998; Uzawa, 1996; Van Weijen, van den Bergh, Rijlaarsdam, & Sanders, 2009; Wang, 2003; Wang & Wen, 2002; Woodall, 2002); and (iii) writing strategy instructions (Cumming, Eouanzoui, Gentil, & Yang, 2004; Dehghan & Razmjoo, 2017; Englert, Mariage, & Dunsmore, 2006; Graham & Harris, 1993; Graham & Perin, 2007;

McMullen, 2009; Riduan & Lim, 2009; Zeleke, 2014a, 2014b). However, these approaches are debated—for example, some scholars believe that feedback in writing can bring more harm than good to L2 learners (Kepner, 1991; Truscott, 1996; Truscott & Hsu, 2008).

Traditionally, most L2 writing studies that investigated higher or tertiary L2 learners took place in English-speaking countries; for example, the United States of America, the United Kingdom, Canada and Australia (Chan & Abdullah, 2003). These studies largely researched L2 writing instruction (Matsuda & De Pew, 2002). Although L2 writing is one of the rapidly growing research fields among L2 learners, in the Malaysian context it has been rather neglected, especially among L2 learners in higher education (Musa, Lie, & Azman, 2012). Also, in comparison to literature in reading development and proficiency, literature reporting writing development and proficiency predominantly among adult learners is relatively scarce.

The background to this research outlines the concept of L2 writing, L2 writing models, the approaches used to improve L2 writing, the importance of L2 writing and the factors that are associated with L2 writing. Although there are a number of facets that may contribute to an L2 written product, the focus of this research is on three linguistic aspects, specifically, morphological, orthographic and phonological skills. The argument presented in this thesis is that these language aspects will be required for the mastery of writing skills among adult Malay-English bilingual learners in Malaysia; however, they have been rarely studied (as detailed in Section 1.4). Therefore, the current study strives to inform the field of L2 writing by identifying possible predictors of writing within the bilingual context of Malaysia.

Moreover, after taking much careful consideration of the argument and the nature of this study, the researcher found that the Not-So-Simple View of Writing model by Berninger and Winn (2006) may be able to serve as a theoretical framework for this study. Therefore, the rationale to investigate the underlying basic language skills that might support English (L2) writing skills among Malay-English bilingual students in Malaysia is further discussed by connecting to the proposed writing model in Section 1.3.

The following chapter provides details on how these three skills may facilitate L2 writing. It also considers how such skills may be transferred from an L1 to an L2, or from an L2 to an L1, and how this skills transfer may increase the mastery of one's writing skills. The current research also includes consideration of the role of vocabulary and grammar in L2 writing to provide a contrast between the focus of the research (i.e., morphological, orthographic and phonological skills), and these two skills that are often included in research on second language

acquisition/writing (this point is discussed further in Section 2.11). To accomplish this, instruments in Malay and English were developed and adapted to: (1) determine students' knowledge of morphology, orthography and phonology, and how these skills are related to writing ability in contrast to vocabulary and grammar knowledge; and (2) test whether these skills may transfer between Malay and English and thereby support L2 learning. The idea of investigating these three linguistic skills in L2 writing proficiency in contrast to vocabulary and grammar knowledge, and transfer within and across languages are further detailed in Chapter 2. The following sections of this chapter discuss the theoretical framework of this study, followed by the importance of writing skills and the difficulties faced by ESL learners, particularly Malay-English bilingual students in Malaysia where the study took place.

1.3 The Not-So-Simple View of Writing Model

Berninger and Winn (2006) developed the Not-So-Simple View of Writing model to understand the components that support the process of writing. This model is an expanded model from the Simple View of Writing by Berninger et al. (2002). As presented in Figure 1.1, this model has four components (i.e., text generation, working memory, transcription, and executive functions) that were argued to be essential for writing. In the model, working memory is placed as the central component in relation to transcription, text generation, and executive functions, based on the view that these three aspects depend upon working memory (Berninger & Amtmann, 2003). The model notes that the transcription component includes the translation of sounds into letter symbols; a process that can be associated with spelling (McCutchen, 2000). Poor accuracy and fluency in spelling can interfere with content generation processes (Abbott et al., 2010; McCutchen, 2000), which are important in writing (Abbott et al., 2010). The generated ideas are most likely encoded into oral language before transcription processes translate them into written text (Kim & Schatschneider, 2017). Links between sounds and letters mean that both orthographical knowledge and phonological processing are important aspects in the transcription process (Berninger et al., 2002; Juel et al., 1986). However, morphological awareness may also support these translation processes in ensuring that a word has an appropriate spelling for its grammatical function—although this latter process will also be influenced by the context of the sentence. Hence, morphological skills may show influences in both transcription and generation processes. A proficient writer, therefore, is likely to use all three of these linguistic skills to produce quality writing; with all three skills being coordinated by the working memory and being influenced by executive and

generative processes. One of the features of such a model is that the different components not only interact but may be relatively independent sources of writing difficulties.

Berninger et al. (2002) highlighted that less proficient writers may face difficulties in one or a number of components proposed in the model. As discussed in the background of the study, writing is one of the most difficult skills to master because it involves a range of both cognitive and linguistic skills, regardless of L1 or L2. The model suggests that apart from cognitive functions (e.g., working memory), linguistics functions (i.e., morphology, orthography, and phonology) play an important role in producing quality writing. Linguistic aspect of morphology, orthography, and phonology may be particularly important as potential predictors of writing when production of text in a second language is concerned (Wakely, Hooper, de Kruif, & Swartz, 2006). Studies suggest that this writing model has the potential to increase our understanding of the development of writing skills among adult learners (Kim & Schatschneider, 2017), which makes it, among the writing models discussed in this thesis, one of the most appropriate to serve as a theoretical framework for the current study.

The model also argues that text generation is a complex process (Juel et al., 1986) and involves a range of higher-order writing skills (Poch & Lembke, 2017). Such linguistic-based skills are often associated with vocabulary and grammar knowledge, and vocabulary and grammar knowledge have been found to be directly related to writing skills (Kim et al., 2014). Individuals with advanced vocabulary and grammar knowledge (Coker, 2006; Olinghouse, 2008) are more likely to produce quality writing. Given that the main aim of this study was to investigate the influence of morphology, orthography, and phonology knowledge in L2 writing, because “each of these linguistic components represents skills needed to communicate through writing” (Costa, 2008, p. 19), it was still necessary to assess the impact of other linguistic variables such as vocabulary and grammar skills to ensure that any associations with identified writing levels were specific to the three target skills, rather than to a general range of linguistic factors.

Although orthographic and phonological skills may be considered basic and mainly associated with young learners, one would also assume that L2 writers will still be developing in these basic underlying skills in their L2. This may be particularly the case when taking into consideration the differences between the two languages in this study of Malay (L1) and English (L2) (see Chapter 3 for further detail). This study also looked to extend models such as the Not-So-Simple View of Writing by investigating whether L1 morphology, orthography,

and phonology knowledge influences L2 writing skills – (though the reverse influence, with L2 supporting in L1 writing may also be apparent). Therefore, the importance of using morphology awareness, orthography knowledge and phonologic processing as essential aspects mainly in L2 writing is discussed throughout the thesis.

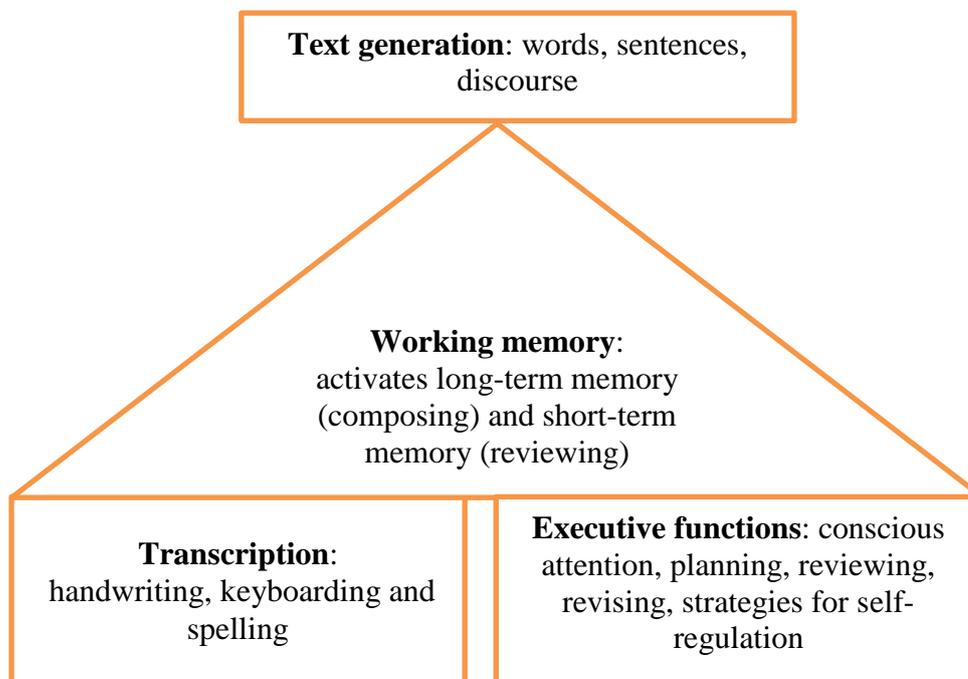


Figure 1.1. The Not-So-Simple View of Writing model by Berninger and Winn (2006)

1.4 Writing Issues in the Malaysian Context

In Malaysia, English has the status of a second language (Asmah, 1977; Gill, 2002). This is in line with the *Language Education Policy* and the Malaysian National Education Blueprint (2013–2025) which enforces bilingualism (Malay-English) as one of the six main key attributes. The six primary attributes are: ethics and spirituality, leadership skills, national identity, language proficiency (i.e., proficient both in Malay and English), thinking skills, and knowledge (Chan & Ain, 2015). Furthermore, Article 152 of the *Malaysian Constitution* mandates that English is to be adopted as the second language of the federal constitutional monarchy. In accordance with this provision, Malaysian students are required to study English in primary school (Years 1 to 6, or for six years) and secondary school (Forms 1 to 5, or for five years). Therefore, a total of 11 years of exposure to formal learning of the English language is mandated (see Chapter 3, 3.9 Malaysian Education System, for detail).

The growing importance of English as an international language is recognised by most countries in the world, including Malaysia. The government has set aside substantial funds to promote improvement in the command of English among Malaysians, especially students. While the Malay language is the national language in Malaysia, English is given due importance, mainly for international communication (Asmah, 1979, 2003; Baskaran, 2004, 2005; David & Govindasamy, 2006; Rajadurai, 2004a, 2004b), tertiary education and employment (Ball & Chik, 2001; Nair-Venugopal, 2000; Sidek & Wahi, 2018). In the present context, L2 learning is considered a central element that is fundamentally emphasised in worldwide academia (Gautam, 2017; Hussien, 2014).

Despite this emphasis on the English language, many Malaysian high school leavers find themselves under-equipped to compete in an increasingly challenging global environment where English is the primary means of communication (Sua & Raman, 2007). A survey conducted by the Malaysian Economic Planning Unit (EPU) in September 2005, found that almost 60,000 Malaysian graduates were unemployed, not only due to their lack of working experience, but also because of their poor command of English. The majority of these graduates were from the Malay ethnic group (Kaur & Kaur, 2008). Even though Malaysian students experience 11 years of learning English in schools, Jalaluddin, Awal and Bakar (2008) affirm that they are still unable to acquire or comprehend the language.

Their concerns were corroborated by the Malaysian Employers Federation (MEF, 2007), who acknowledged that due to poor English proficiency, Malaysian university graduates were unable to present ideas and explain issues in writing. The Federation further stated that many graduates have difficulty in writing reports, project papers, proposals and minutes of meetings. This claim has been supported by the Federation of Malaysian Manufacturers (FMM, 2014), who claim that employers generally face difficulties in recruiting local graduates with a good command of English, particularly when it comes to their writing skills.

A study conducted at one of the public universities in Malaysia by Elia, Kardina and Nazirah (2006), found that undergraduates face difficulties with their writing skills compared to other language learning skills offered at universities. Although lecturers have implemented various strategies and approaches to enhance the level of writing skills among undergraduates, students still find it difficult to achieve the minimum passing grade (Mah, Umar, & Chow, 2013). Regardless of learning English for 11 years at school, Malaysian students are still unable to attain satisfactory writing skills in English (Charanjit, Amreet, Nur Qistina, & Ravintha, 2017;

Chitravelu, Sithamparam, & Teh, 2005; Darus & Subramaniam, 2009; Maniam & Rajagopal, 2015; Pandian, 2006; Ramaiah, 1997) and are unable to execute their writing tasks in an adequate manner (Chitravelu et al., 2005; Ibrahim, Yunus, & Khairi, 2017). Therefore, many public university graduates, especially Malay graduates, face unemployment due to their L2 incompetence (Gill, 2004; Stephen, 2011).

In 2000, the Ministry of Education (MoE) emphasised the basic mastery of writing skills among Malaysian students. It is alarming that nearly a decade later in 2009, the Malaysian Examination Council (MEC) raised concerns about unsatisfactory written work produced by candidates of the end of school English paper. Furthermore, Palpanadan, Ismail and Salam (2015) indicated that inadequate writing skills can be traced right back to the school level, even though English is taught in both primary and secondary schools. This is alarming since much attention has been given by the Malaysian government towards the poor proficiency of English among Malaysian students (Botley & Hakim, 2014; Normazidah, Koo, & Hazita, 2012; Quek, 2005; Zahidi, 2012).

The present circumstances in Malaysia have created apprehension among the MoE, academics and parents. There has been an ongoing battle among ESL learners and ELT practitioners, as writing has been seen as a very challenging skill for L2 learners to master (Gupta, 1998; Maarof & Murat, 2013). Writing is a difficult skill to teach compared to listening, speaking and reading (Akinwamide, 2012). At the same time, writing also assists in enhancing listening, speaking and reading, as these four skills are connected (Ien, Yunus, & Embi, 2017; Saed & Al-Omari, 2014; Yunus & Chien, 2016). As a result, writing skills help students later in life when they pursue their tertiary education and career (Badiozaman, 2012; Dovey, 2010). This is because writing is an essential tool that gives learners the opportunity to transform their concepts in written form (Foo, 2007).

In order for students to be proficient in English at the tertiary level, the Malaysian University English Test (MUET) was introduced in 1999 by the MoE (see Chapter 3, 3.11 English in Tertiary Education, for detail). Although the MUET examination should prepare and equip students with English proficiency (Ambigapathy, 2001; Zuraidah, 2004), Stephen (2011) reported that based on enrolment statistics in local public universities, a majority of Malay undergraduate students were still required to enrol in English remedial classes in order to keep up with their tertiary subjects. Some studies involving Malay students have highlighted that

interferences from L1 could be the reason for Malay learners facing difficulties, especially in their L2 writing (Ghabool et al., 2012; Hashim, 1999; Maros, Hua, & Salehuddin, 2007).

Scholars in Malaysia have also conducted studies in L2 writing and detailed the challenges faced by ESL learners, especially among Malay students. A number of Malaysian scholars have argued that Malay learners' difficulties in L2 are mainly due to the nature of their L1 (Normazidah et al., 2012), their knowledge of their L2 (Hijjo, 2013), and the interferences of L1 linguistic features in L2 (Wong, 2012). Several studies (see Darus & Subramaniam, 2009; Khan, 2008; Maros et al., 2007; Vahdatinejad, 2008; Vethamaiccam & Ganapathy, 2017; Zainal, 1990) have indicated that in their L2 writing, Malay students make mistakes in parts of speech, word choice, spelling, sentence structure and subject-verb-agreement, to mention a few. Therefore, they are unable to develop and organise their ideas in written form by choosing the right vocabulary and sentences that were grammatically correct, even they would have had some knowledge about the given writing topics (Nik, Hamzah, & Rafidee, 2010; Yunus et al., 2013). These may be the results of differences in L1 linguistic features compared to their L2 counterparts (as detailed in Chapter 3). Moreover, students' failure to produce satisfactory written work might be led by other factors such as motivation, anxiety, L2 feedback, L2 instructions, lack of practice (Fujieda, 2006; Hourani, 2008; Jafari & Ansari, 2012; Latif, 2007; Rezaei, Jafari, & Younas, 2014; Richards & Nunan, 1990; Russel & Spada, 2006), language use, mechanics and content knowledge (Al-Gharabally, 2015; Al-Khasawneh, 2013; Maros et al., 2007).

In contrast, Zamel (1982, 1983), a pioneer in the field of L2 writing, pointed out that both L1 and L2 have parallel writing processes, and this is supported by other L2 writing researchers (Cumming, 1989; Matsuda, 2013; Matsumoto, 1995; Silva, 1992). Studies carried out by Stapa and Abdul Majid (2006) and Maarof and Murat (2013) among low proficiency and novice Malay ESL writers, reported that Malay ESL writers use their L1 to generate ideas and were able to produce quality written work in L2. Meanwhile, Friedlander (1990) highlighted that essays with better content were written by L2 learners who used their L1 during the planning process. Moreover, Wang and Wen (2002) argue that ESL writers have more than one language at their disposal, which may be considered an advantage when writing in L2. However, the influence of L1 use and L2 writing ability is still a debatable subject, because there are no fundamental concepts to support this process of writing (Wong, 2012). Therefore, the findings of this study may address the continued disagreement among academics regarding the influence of L1 on L2, and add some insights in the field of L2 writing literature.

In light of the above, it is timely to explore potential predictors of English writing and provide a better strategy venue for improvement of L2 writing among first-year matriculation students in Peninsular Malaysia. The present work aims to consider the influence of L1 on learning to write in English as an L2. Although a substantial number of studies have focused on linguistic transfer from one language to another among both young and adolescence learners, a review of available literature shows that studies on cross-linguistic transfers in Malaysia are limited, especially among older learners. The arguments for investigating cross-linguistic transfers that are able to predict L2 writing proficiency among older learners in a Malaysian context are further detailed in Chapter 2.

1.5 Research Objectives

This study is designed to examine the relevant linguistic aspects that may facilitate English writing ability among ethnic Malay students in Peninsular Malaysia. The following are the general objectives of this study:

1. To investigate the basic underlying linguistic skills of morphology awareness, orthographic knowledge and phonology processing as potential predictors of L2 writing among Malay-English adult bilingual learners, and how these basic underlying linguistic skills are important in comparison with vocabulary and grammar knowledge.
2. To investigate the cross-linguistic transfer between Malay and English, and how such transfers across languages may influence Malay-English adult bilingual learners in L2 writing.

The following sections offer brief descriptions of the assessment battery administered in this study, the research design employed to address the objectives, an overview of findings and the organisation of the thesis.

1.6 Assessment Battery

The Malay and English measures implemented in this thesis were as follows: (1) Writing Task (Timed Essay), considered one of the most successful way to measure learners' writing ability; (2) Grammar Task (Recognising Grammar Mistakes and Sentence Completion), commonly used to differentiate learners' competency and performance; (3) Vocabulary Task (Vocabulary Word-Level Test), generally used in order to measure learners' lexical range; (4) Morphological Skill (Non-Word Task, Word-Form Task and Relatedness Task), frequently used to measure learners' understanding in recognising, applying and forming words by using

the correct affixation rules; (5) Orthographic Skills (Orthographic Choice Task, Permissible Letter-Strings Task and Orthographic Processing Task), recognising orthographical pattern and letter-to-sound relationships; and (6) Phonological Skills (Non-Word Letter-String Task and Syllable Counting Task), which are considered to measure learners' ability to decode and recognise sounds within a word. The measures were developed and adapted in order to predict L2 writing performance as to be investigated in this study among Malay-English adult bilingual learners. The 24 sub-tests (12 in each language), were piloted and modified in Malay and English in order to assess the extent to which the assessed items measured the same characteristic or components. The internal consistency reliability or item reliability was established. These are further discussed in Chapter 4.

1.7 The Research Design

This study is quantitative in nature. A correlational research design was implemented to determine relationships between the variables used in the study. A correlation research design best served this study as the study examines the underlying relationship between the linguistic knowledge of morphology, orthography and phonology skills and writing ability among Malay-English adult bilingual learners in Peninsular Malaysia. To answer the proposed research objectives, data were gathered through language-related assessments and written compositions, both in Malay and English, among 120 adult bilingual participants (see 5.2. Data Collection Procedure, for detail) at one of the matriculation centres in Peninsular Malaysia.

1.8 Summary of the Findings

For the purpose of the study, 24 sub-tests (12 sub-tests in each language) were administered to Malay-English adult bilingual participants (see Chapter 4 for details). Vocabulary and grammar measures were included in order to determine relationships between writing scores based on the Jacobs et al. (1981) scale and morphology/phonology/orthography in comparison to vocabulary and grammar. In order to answer the first research objective, which was to examine the influence of morphology awareness, orthographic knowledge and phonology processing in L2 writing, the data collected from 12 sub-tests developed in English were used in the analyses. Analyses indicated that when vocabulary and grammar measures were controlled for, the three predictors (i.e., morphology awareness, orthographic knowledge and phonology processing) did not show significant associations with L2 writing. This indicates that when Malay-English adult bilingual learners have had exposure and experience in L2 learning, and have reached tertiary education, their L2 writing is largely influenced by vocabulary knowledge.

In order to further understand whether the participants' L2 writing was largely influenced by vocabulary knowledge, 60 of the English essay scripts were randomly selected from the 120 essay scripts. These 60 essay scripts were measured in terms of the number of words written, the number of spelling errors, the number of grammar errors and the number of repeated words (excluding pronouns, articles and auxiliary verbs). In these analyses, the frequency of the number of spelling, grammar errors and repeated words was averaged by the number of words written in the essay in order to control for essay length. Analyses indicated relationships between the number of repeated words, the proportion of spelling and grammar errors and repeated words produced in the essay and the morphology, orthography and phonology skills. These analyses suggest that the complex nature involved in L2 writing requires more than one linguistic aspect in order to produce a quality L2 essay, and is not solely influenced by vocabulary measures.

The second aim of this study was to investigate the potential for cross-language transfer between L1 and L2, and how such a transfer of morphology, orthography and phonology skills may influence the Malay-English adult bilingual participants' L2 writing. In these analyses, all 24 sub-tests were developed in Malay and English languages and were included. Similar to the earlier analyses, grammar and vocabulary measures in Malay and English were controlled for in the cross-language analyses. The analyses suggested that after controlling for English grammar and vocabulary in Malay writing, no significant correlations were found between morphological, orthographical and phonological skills in Malay and English writing scores based on the Jacobs et al. (1981) scale. Similar to the earlier findings, the vocabulary measure was the main predictor of writing scores within-language. The one cross-language effect was that English grammar predicted L1 writing, suggesting an influence of English grammar in Malay writing. One potential explanation is that Malay students may overuse L2 grammar rules in their L1 writing and this would indicate poorer levels of L1 writing.

To further understand cross-language transfer between L1 and L2, analyses also considered the 60 randomly selected English essay scripts that had been scored based on the number of words written, the proportion of spelling and grammar errors, and the proportion of repeated words. The findings indicated relationships between the number of words written, the proportion of spelling and grammar errors and repeated and L1 morphological awareness, orthographic knowledge and phonological processing. In addition, the analyses suggested that L2 spelling was mainly influenced by L1 orthographic knowledge. One possible explanation is that both Malay and English share the same alphabetic writing script, therefore, this may have influenced

the participants to use their L1 orthographic knowledge to support their L2 spelling in their English essays. As such, the analyses from the cross-language transfer suggested that their L1 basic underlying skills were able to support their L2 writing ability.

The overall analyses suggested that the Jacobs et al. (1981) scale may have given importance to vocabulary knowledge in L2 writing. This is because further analyses in terms of the number of words written, the proportion of spelling and grammar errors and repeated words, indicated that writing in English requires basic underlying skills to write a quality English essay. One possible justification as per the Jacobs et al. (1981) scale is that Malay-English adult bilingual learners with advanced vocabulary knowledge are able to write a quality English essay.

1.9 Organisation of the Thesis

Chapter 1 provided an overview of this thesis by stating the background of this study, writing predictors and strategies, L2 models and theories, the theoretical framework of the current study, approaches to address L2 writing difficulties, and the L2 writing issues in the Malaysian context, particularly among Malay-English adult bilingual learners that presented the need to conduct this study. This chapter also presents the aims of the study and highlights the measures used and findings obtained from this study.

Chapter 2 elaborates on the related literature which is in line with the current study that focuses on cross-linguistic transfer in terms of morphology, orthography and phonology skills, together with vocabulary and grammar knowledge, as these two skills are known to be important in L2 writing ability. This chapter also discusses the key studies used in this study to justify and rationalise the importance of investigating the basic underlying skills of morphology, orthography and phonology among Malay-English adult bilingual learners in Peninsular Malaysia.

Chapter 3 presents the orthography, origins and features of the Malay language, the status of the Malay language in Malaysia and the neighbouring countries, the Malaysian education system and the role of English in schools. This chapter also compares the differences between the Malay and English morphology, orthography and phonology rules, which were essential in the development of the Malay and English measures administered in this study.

Chapter 4 details the four pilot studies administered both in Christchurch, New Zealand and Peninsular Malaysia, the outcomes obtained to further improve the measures assessed in the main study, research assistants, ethics approval and general assessment procedures. This

chapter also illustrates the rationale, design and procedure used for developing and adapting the Malay and English measures for the main study.

Chapter 5 first reports on item reliability of the 24 sub-tests used in this study followed by the findings of this study, which are presented in the form of descriptive, correlation, partial correction and multiple regressions. Based on the analyses, this chapter discusses the findings of the two research objectives proposed for this study, which were L2 writing ability and cross-linguistic transfer between L1 to L2 and L2 to L1 in essay writing.

Chapter 6 discusses and concludes on the overall findings of this study compared with the related literature, and provides theoretical and practical implications in order to support ELT practitioners in ESL teaching and learning, particularly in the field of L2 writing. This chapter also offers some limitations and suggestions for future research directions.

1.10 Conclusion

This study focuses on the relationship between ability in writing and linguistic knowledge among Malay-English adult bilingual learners in Peninsular Malaysia. This chapter briefly described English (L2) language/writing difficulties faced by ethnic Malay students which was the underlying reason for the work conducted—that is, to increase our understanding of L2 writing and thereby support the development of practices that can improve L2 writing skills. The following chapter discusses literature that covers the development of morphology, orthography and phonology processing skills, the main focus of this study, and how these skills might support language acquisition and L2 writing ability. It also discusses research that focuses on other language skills such as vocabulary and grammatical knowledge, that have often been the focus of L2 research. The following chapter also considers cross-language transfer of skills (particularly in terms of morphology, orthography and phonology), as these may provide an additional factor through which L2 ability can be supported/enhanced. Finally, the chapter details the need to include the basic underlying linguistic skills of morphology, orthography and phonology in order to investigate L2 writing skill among Malay-English adult bilingual learners in Peninsular Malaysia.

CHAPTER 2

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter reviews the related literature pertaining to the current study. In this chapter, the importance of the following skills will be examined: cross-linguistic transfer of morphological awareness, orthographic knowledge and phonological processing. Grammatical knowledge and vocabulary in writing, especially among bilingual learners will be discussed alongside these skills. Since the target group for the current research was bilingual learners, this chapter focuses on research studies and assessments that have involved bilingual learners. Predictors of second language writing were highlighted in the first chapter, as these provide a cornerstone to understand ESL and English as a foreign language writing. This chapter presents a comprehensive understanding of cross-linguistic transfer between the first language or mother tongue (L1), and ESL (L2) or Target Language (TL) in terms of morphological awareness, orthographic knowledge and phonological processing. Therefore, this chapter provides clarity on how learning L1 may facilitate L2 learning, or how L2 learning may influence L1 development, even though both languages are contrasted historically, morphologically, orthographically and phonologically (Malay and English in this case). In addition, this chapter also provides justification for the design and development of the Malay and English measures administered in this study in terms of morphological, orthographical and phonological skills. The chapter further illustrates the importance of grammar and vocabulary in L2 writing, because these two components are equally important when L2 writing is concerned among ESL learners. Lastly, the chapter presents the need for the current study among L2 learners in Peninsular Malaysia, and along with the importance of investigating the basic underlying skills of morphology, orthography and phonology in L2 writing among Malay-English adult bilingual learners.

2.2 Bilingualism

The phenomenon of bilingualism has been described in numerous forms by scholars internationally. Bilingualism can be defined based on a person's acquisition of knowledge in more than one language and culture, which may have been learned formally or informally (Bialystok, 2001a; Lyon, 1996; McLaughlin, 1984). In other words, bilingualism can be referred to as the learned ability to communicate in two languages. In order to be able to read

and write, students learn and develop the essential skills in letter and word recognition, encoding and decoding, and those who are bilingual learn these skills in both languages (Brisk, 2006; Brisk & Harrington, 2010).

Bilingual speakers are also believed to be able to transfer the processes and strategies from one language to another; however, they still need to learn the precise features in each language (Brisk & Harrington, 2010). In terms of literacy skills, Cummins (1991) argues that bilinguals' literacy ability in one language seems to facilitate literacy acquisition in another language. This is particularly evident when two languages are not alike, which requires the learner to learn the linguistic rules of the new language to enable them to apply those rules accurately in reading or writing.

Vygotsky (1962) hypothesised that bilingualism assists metalinguistic development, and other researchers such as Bialystok (2001b), and Carlson and Meltzoff (2008) have agreed with his hypothesis. Metalinguistic awareness alludes to the understanding that language is a communication system, governed by rules and forms and the basic ability to distinguish the ways to use language (Ter Kuile, Veldhuis, van Veen, & Wicherts, 2011). In other words, metalinguistic awareness is associated with the ability to analyse (i.e., the language and sub-parts), and understand how the language operates and integrates into a broader language system (Beceren, 2010; Koda & Zehler, 2008). As David (2013) points out, "it is through this reciprocity that L1–L2 transfer can be traced" (p. 2).

2.3 Cross-linguistic Transfer

In the field of second language acquisition (SLA), cross-linguistic influence has been given a great amount of attention among researchers internationally (Bialystok, McBride-Chang & Luk, 2005; Casalis & Louis-Alexandre, 2000; Riches & Genesee, 2006; Yeung & Ganotice, 2014). The concept of cross-linguistic influence was first introduced in the 1980s, and is also known as first language interference, linguistic interference, language mixing, language transfer, and cross-linguistic influence. The names of these concepts are used interchangeably in research. The aforementioned concepts imply that language transfer or cross-linguistic influence relates to the same field and, in this study, cross-linguistic/language influence or transfer refer to the same terminology.

The term 'cross-linguistic transfer' is a broader term, because the term 'transfer' alone is confined to the action that affects the linguistics features between L1 and L2. This happens

when an individual applies their knowledge from L1 to L2 or vice versa. Therefore, Ellis (1994) and Sharwood-Smith and Kellerman (1986) have categorised the study of cross-linguistic transfer into four categories: interference (negative transfer), facilitation (positive transfer), avoidance and overgeneralisation. Interference in the TL occurs due to the differences between L1 and L2 language rules (Du, 2016), and causes negative transfer. Positive transfer is when learners use their L1 to facilitate their L2 learning (Hao & Chi, 2013); however, it is also plausible that learners avoid linguistic rules of the TL when they find it difficult to reconcile the differences between L1 and L2 (Nair, 2013). Lastly, overuse occurs when learners apply certain linguistic rules repetitively (i.e., overgeneralisation) (Nair, 2013), for example, *tooths* instead of *teeth*.

The concept of cross-linguistic transfer was initially given importance by Weinrich (1953) and further captured by Lado's (1957) interests. In his theory, Lado (1957) argued that by identifying the differences between the learners' L1 and L2, the linguistic structure may resolve the negative transfer that might occur in L2 by developing teaching materials that enable L2 learners to master their TL. Later in the 1960s, the predominance of L1 influence in L2 was suggested by Lado (1957), especially in pronunciation, and led to the formation of the Contrastive Analysis Hypothesis (CAH) (Bou-Franch, 1998; Brogan & Son, 2015). Fisiak (1981) defines CPH as "a subdiscipline of linguistics concerned with the comparison of two or more languages or subsystems of language in order to determine both differences and similarities between them" (p. 1). This concept has been widely used in the field of SLA for a number of years (Grass & Selinker, 2008; Hui, 2010).

However, it is important to note that the CAH was mainly replaced in SLA by error analysis (Corder, 1967), because much emphasis was given to syntactic errors (e.g., subject-verb-agreements) that were caused by the differences between L1 and the TL (Wong & Dras, 2009). This is debatable because there are other types of errors in SLA that can be associated with transfer, and by analysing the relationships in the opposite direction and by using a probabilistic method, the CAH could still be applicable in predicting the errors caused by L1 transfer in L2 (Wong & Dras, 2009). In his own words, Lado (1957) states that "...those elements that are similar to [L1] will be simple for him, and those elements that are different will be difficult" (p. 2). This suggests that negative transfer could take place when the linguistic features in L1 differ from L2. As such, this is undeniable in the L2 teaching and learning context (Dost & Bohloulzadeh, 2017), as Brown (2014) claims that "such interference does exist and can explain difficulties" (p. 200).

O'Mally and Chamot (1995) define transfer as “using what is already known about language to assist comprehension or production” (p. 199). Ellis (1994), on the other hand, views transfer as “language learning, like any other kind of learning, [that takes] the form of habit formation, a ‘habit’ consisting of an automatic response elicited by a given stimulus” (p. 299). Mitchell and Myles (2004) echo this definition by putting forward that the process of L1 acquisition is straightforward, as learners absorb a new set of habits by responding to their surroundings; whereas in L2 learning, learners use their established set of habits from their L1 to solve the difficulties they encounter in L2 learning by replacing the former with the latter. Moreover, Cisero and Royer (1995) promote the notion that transfer between a known and unknown language is the “abstracted cognitive ability”, which enables learners to tackle the linguistic process across different languages (p. 279). In this present study, acquisition is an unconscious and conscious process that happens when learning L1, while learning refers to a conscious process that happens when learning a language—learning the syntactic rules, pronunciation and vocabulary (Krashen, 1982).

In the development of cross-linguistic transfer, researchers internationally have emphasised the potential negative transfer relating to the dissimilarities between two languages that may hinder the learning process (James, 1980; Odlin, 1989). Less emphasis has been given to positive transfer, although the latter effects on L2 learning have been acknowledged internationally (Hao & Chi, 2013). Researchers have documented that certain linguistic features such as morphology, orthography and phonology could either hinder or facilitate L2 learning (e.g., Bulay, Burt, & Krashen, 1982; Cummins, 1983; Eisterhold, 1990; Ellis, 1994; Faerch & Kasper, 1987; Francis, 2000; Grabe & Kaplan, 1989; Moattarian, 2013; Talebi, 2014). It has been recorded that the differences between two languages could result in negative transfer; however, if there are similarities in the linguistic features of the two languages, positive transfer would be expected meaning that L1 skills may facilitate L2 learning (Bou-Franch, 1998; Ellis 1985; Rasier & Hiligsman, 2007).

As aforementioned, the concept of transfer, or cross-linguistic transfer, is the effect of L1 in learning L2 (Nair, 2013; Yang et al., 2017), which mainly takes place among bilingual learners (Serratrice, 2013) or those learning a foreign language (Schoonen, 2011; van Gelderen, 2007). In addition, an individual who knows more than one language is more likely to have an advantage in comparison to their monolingual counterparts in terms of language proficiency and cognitive development (Cook, 1991, 1994, 2007a, 2007b). This is because the learners are able to use L1 to support their L2 learning (Cook, 2002, 2003; Kecskes, 2008, 2010), or L2

learning influences their L1 proficiency (Balcom, 2003; Cook, 2003). For example, studies (see Bialystok, 1988; Galambos & Goldin-Meadow, 1990; Oller & Eilers, 2002; Reder, Mares-Breton, Gombert, & Demont, 2013) have reported that when linguistic tasks (i.e., morphology, orthography, phonology) were administered to bilingual children and adults, bilinguals have an advantage compared to monolinguals. Therefore, Nunes and Bryant (2009) question whether an L1 learner's knowledge can make a learner a better L2 learner. The answer depends on the linguistic structure of their L1 and L2, the methods of how languages are taught (Tunmer & Myhill, 1984), the exposure to L2 (Verhoeven, 1994) and their L1 proficiency (Huang, 2016; Yang et al., 2017).

In agreement with the previous statement, cross-linguistic transfer varies depending on one's proficiency in their L1, the context of the languages being taught and the ongoing development and progress of one's L1 (Yang et al., 2017). Moreover, Odlin (1989) argues that the concept of transfer differs based on a number of factors, such as background, age, motivation, literacy, status and exposure to the language. The rate of transfer is also largely dependent on the nature of the languages involved. As Mora (2010) supports, there are better chances of cross-linguistic transfer if both languages derive from a similar language family structure, for example, orthographical structure (e.g., alphabetical, deep or shallow orthography depth) and phonological rules (e.g., letter-sound correspondence). This concept suggests that transfers occur when a learner's linguistic knowledge of their L1 is applied to their L2, or from L2 to L1. This can be seen especially when a child is learning their L2. However, studies also have documented that regardless of the learner's L1 orthography structure, transfer from L1 to L2, or L2 to L1 were able to influence one's ability to read (Hussien, 2014; Leij, Bekebrede, & Kotterink, 2010; Yelland, Pollard, & Mercuri, 1993) and write (Kecskes & Papp, 2000).

Ringborn (1987) states that there is a connection between cross-linguistic and inter-linguistic skills (i.e., using rules from both L1 and L2 linguistic structures to produce sentences in L2), because learners are able to grasp new information based on their prior knowledge, of which the similarities support their learning. This is because bilingual or multilingual learners transfer their linguistic features from L1 to L2, L2 to L1, or to other additional languages (Jarvis & Pavlenko, 2008). Taking into account the linguistic features involved, Jarvis and Pavlenko (2008) and Odlin (1989, 2003) identified different kinds of cross-linguistic transfer, namely, morphological, orthographical, phonological, lexical, semantic, syntactic, discursive, pragmatic, sociolinguistic and conceptual.

Therefore, in order to be proficient in a language, children or adults depend not just on a single linguistic skill, but on their connections to orthographic, phonological, morpho-syntactic, and semantic knowledge (O'Brien, Wolf, Miller, Lovett, & Morris, 2011). In other words, in order for children or adults to learn reading and/or writing, especially in English as their L2, they have to acquire information of the writing system at various levels (i.e., morphological, orthographic, phonological, semantic and syntactic) (Nagy, Berninger, & Abbot, 2006). As Brogan and Son (2015) observe, at an initial stage of learning, learners depend on their L1 structure, particularly when speaking and writing in L2.

This argument presents that, pedagogically, positive transfer has been acknowledged where the similarity in linguistic features could produce a positive cross-linguistic transfer between L1 and L2 (Yu, 2004). Although numerous studies have offered significant evidence that indicate positive transfer between L1 and L2, there is substantial evidence that is associated with negative transfer between L1 and L2 (see Keung & Ho, 2009; Li, 2002; Rintell, 1984). Therefore, the ongoing debate associated with positive and negative transfer has led educators and linguists alike to turn their attention to the notion of cross-linguistic transfer, which has paved a valuable path for researchers in the field of L2 teaching and learning worldwide. The following sections discuss the linguistics aspects of morphology, orthography and phonology, and L1 and L2 acquisition in terms of morphology, orthography and phonology, followed by grammar and vocabulary in L2 writing.

2.4 Morphology

In English, the smallest meaningful unit of a language is known as the morpheme. There are five categories of morphemes that are used in word formation, both spoken and written, which can be categorised into: root words, affixes, parts of speech, intonations, and stresses or implied context (Yücel-Koç, 2015). The root morpheme stands on its own because in every word there is at least one root. The other three morphemes are bound morphemes. A bound morpheme is a meaningful unit, but it does not stand on its own (e.g., prefixes, suffixes and inflections) (Arnbak & Elbro, 2000). For example, the word 'unavoidable' consists of three morphemes: the root word 'avoid', prefix 'un-' and suffix '-able'. This indicates that each morpheme has its own role in terms of meaning and function in order to form a word.

In the context of morphology, Nagy, Carlisle and Goodwin (2014) said that the process of word formation can be divided into three categories: inflection, compounding, and derivational. Inflection morphology refers to the changes of different grammatical forms without changing

the meaning or part of speech (Kuo & Anderson, 2006), for example, cat–cats, walk–walks. Studies support the notion that children acquire inflectional morphology at an early stage of their language development (Mann, 2000).

Compounding morphology, on the other hand, refers to formation of new words by adding two or more words together (Zhang, Koda, & Sun, 2014), for example, butter + fly = butterfly, rain + coat = raincoat, air + plane = airplane. In literacy skills development both in L1 and L2, Zhang et al. (2014) suggests that compounding morphology plays the main role among learners from Asian linguistic backgrounds (i.e., Chinese, Korean and Vietnamese).

Derivational morphology refers to forming new words by adding an affix to the root word which changes the word (Kirby et al., 2012), for example, impress + ion = impression, logic + ian = logician. In contrast to inflectional morphology, mastery of derivational morphology takes place at the later stage of language development (Mahony, Singson, & Mann, 2000). Hence, derivational morphology is mainly administered to assess vocabulary depth and breadth for academic progress (Kieffer, Biancarosa, & Mancilla-Martinez, 2013; Kieffer & Lesaux, 2012).

Moreover, Tyler and Nagy (1989) categorise derivational morphology into three categories of usage: relational, syntactic, and distributional. First, when an individual is able to recognise two or more words with complex internal structure that share a common morpheme, it is known as relational knowledge. For example, ‘happy’ is related to ‘happiness’ in a way, however, ‘cat’ is not connected to ‘category’. Next, syntactic knowledge is the ability to recognise the changes in words for a syntactic group after adding derivational suffixes, for example, migratory is an adjective after adding the suffix -ory and migration is a noun after adding the suffix -ion. Lastly, distributional knowledge is the understanding of the limited concatenation of affixes, for example, when -ness is attached to an adjective it becomes a noun, polite = politeness, but the same does not apply to verbs.

Linguistically, derivational suffixes are divided into two categories: neutral suffixes (e.g., -ment, -ize, -ness, or -er), and non-neutral suffixes (e.g., -ify, -ity, -ous, or -ive). Although each category of derivational morphology plays a significant role when forming words, Tyler and Nagy (1989) argue that an individual should acquire syntactic and distributional knowledge at a later stage of learning since syntactic and distributional knowledge involve relational knowledge. In essence, derivational morphological knowledge is essential to understand not

only the derived meaning of the word, but also the meaning of the words in sentences and paragraphs (Kuo & Anderson, 2006; Nagy, 2007).

2.4.1 Morphological Awareness in L1 and L2 Acquisition

Gan (2013), Kieffer and Lesaux (2008), and Carlisle (1995) define morphological awareness as the ability to reflect on and recognise the presence of morphemes in words. It can also be referred to as the capability to unlock a word's meaning by analysing its morphemes (Baumann et al., 2002; Zaretsky, 2017). Talerico (2007), on the other hand, asserts that morphological awareness enables learners to manipulate and explicitly understand the word parts. Moreover, Kuo and Anderson (2006) argue that morphological awareness comprises the essential mastery in matching sounds and morphemes and the rules of word formation, which assist an individual in the feasible understanding of morphemes.

Therefore, in order to recognise the meanings of words (Carlisle & Stone, 2003) and to form new words based on them (Yang, Cooc, & Sheng, 2017), morphological awareness plays an essential role. Ramírez, Chen and Pasquarella (2013) emphasise that morphological awareness is necessary to understand words because similar words in different sentences carry different meanings due to the changes in affixes, which change the syntactic relationship of a word. Learners who have gained morphological awareness can better comprehend the morphemic structure of words and later replicate this word structure in order to have an understanding of the whole meaning of the words (Antonocci & O'Callaghan, 2011; Karimi, 2012; Mountain, 2005).

Adding to this, with morphological awareness learners do not need to depend on a dictionary and contextual clues for meanings as they are able to deconstruct and construct meaning from the morphemes (Varatharajoo, Asmawi, & Abedalaziz, 2014, 2015; Varatharajoo, Asmawi, Abdallah, & Abedalaziz, 2015). As such, this gradual development of morphological awareness takes place when students can perceive the multifaceted connection between the form and meaning of words, because English is a morphophonemic language (Venezky, 1970). Therefore, morphological awareness plays a fundamental role in language acquisition (Carlisle, 2010) and vocabulary growth (Ramírez, Walton, & Roberts, 2014; Varatharajoo, 2016).

Moreover, Karimi (2012) points out that morphological awareness is an essential factor in linguistic knowledge because to clearly express the role of a specific word in a linguistic context, morpheme properties, semantics, phonology and syntactic elements must be present.

Kuo and Anderson (2006) and Oz (2014) support Karimi's claim that the presence of morphological awareness would give learners the opportunity to become accustomed to the writing system within a language, and with the fundamental elements learners are able to figure out the meaning of words critically. This was seen in the study by Sandra (1994) among adult readers in Belgium, where it was found that morphological awareness plays a significant role in storing words when the lexical structure is morphologically organised. Meanwhile, younger learners have the upper hand in morphological awareness, as they are able to receive and store morphologically complex words in their vocabulary (Anglin, 1993; Nagy & Anderson, 1984).

Carlisle and Feldman (1995, 2003), Kirby et al. (2012), and Liu and McBride-Chang (2010) all state that the development of reading and writing skills are correlated with morphological awareness. Their outcomes were further supported by Silva and Martins-Reis's (2017) longitudinal study, which found that students who performed better in their morphological awareness measures also performed better in reading, writing and spelling, which was observed across school grades from grades 1 to 6. In addition, findings in regular (e.g., Portuguese) and irregular (e.g., English) orthography demonstrated the relationship between morphology awareness and students' outcomes in their reading and writing (see Mota, 1996 for detail). This is because the learners' established knowledge in their L1 enables them to spell irregular words with the assistance of their morphological awareness (Silva & Martins-Reis, 2017). Previous studies have documented that in languages with alphabetical script, morphological awareness was able to predict the growth of vocabulary, word reading and reading comprehension (Carlisle, 2000; Clark, 2017; Deacon & Kirby, 2004; Kieffer & Lessaux, 2008, 2012; Nagy, Berninger, & Abbott, 2006; Nunes & Bryant, 2006). Furthermore, morphological awareness was also found to predict reading comprehension, vocabulary and grammar among logographic languages (Zhang & Koda, 2013).

Mahony, Singson and Mann (2000) advocate that in order to support writing, morphological awareness plays the role of providing semantic value, which is the basic unit of a language because morphemes not only consist of semantics, but also phonological and syntactic properties. Ramírez, Chen, Geva and Kiefer's (2010) study showed a significant relationship between morphological awareness and word reading among Spanish-English participants. This supported the findings of Liu and McBride-Chang (2010), while the studies by Nunes et al. (1997, 2003, 2006) reported that morphological awareness has a stronger connection to a child's word spelling than phonological awareness (Nunes & Bryant, 2004; Nunes et al., 1997, 2003, 2006). This was similar to the findings of Siegel (2008) among English monolingual and

English L2 learners in Canada. The study documented that word and spelling measures correlated highly with morphological awareness, rather than phonological awareness. Therefore, regardless the orthographic structure of a language, morphological awareness is necessary in the development of reading and spelling among monolingual (Tong, McBride-Chang, Shu, & Wong, 2009) and bilingual learners (Marinova-Todd, Siegel, & Mazabel, 2013), predominantly in their ability in reading and writing (Marinova-Todd et al., 2013), and in their L1 and L2 literacy development (Deacon & Kirby, 2004; Nagy et al., 2006).

Meanwhile, Seymour (2005) advocated that language is the basic environmental aspect that may affect the growth of the cognitive system underlying reading and spelling ability. Especially, there are between-language differences in how the sound structure of the spoken language (the phonology) is represented in writing (the orthography) (Seymour et al., 2003). Seymour (2003) further posits that the way meaning is conveyed through grammar and the internal structure of words (the morphology) may also be essential. This claim can be seen in the finding yielded by Bindman (1997, 2004) that learners use their L1 morphological awareness to facilitate their L2 grammar learning, even though, structurally L1 and L2 are different. In this respect, Cummins (2000) suggested that learners transfer their morpho-syntactic knowledge from L1 to L2 in order to facilitate their learning, as morpho-syntactic knowledge is a cognitively challenging task. Cummins (1979) supported this position in his “Linguistic Interdependence Hypothesis”, also known as “Cognitive Academic Language Proficiency”, that students who are less proficient in their L2 development mainly rely on their L1 proficiency to support their L2 learning. In other words, the level of L2 competency is likely to depend on the level of L1 ability.

In order to assess morphological rules, Berko (1958) tapped into children’s acquisition of morphological awareness, especially in inflectional morphology, by developing the “Wug Test”. Children aged four to seven-years-old were presented with sentences that contained non-words and plurals, possessives of nouns, third person singular verbs, progressive and past tenses, and comparative and superlative forms of adjectives. The non-words were formed based on morphological rules and phonological conditions with possible sound combinations in English. These words were taken from the 1,000 words most frequently used among first-graders. Berko (1958) initially piloted the test among 12 adult college graduates who spoke English as their L1. Their answers and comments were used to assess whether the test was suitable to assess kindergarten students (i.e., children aged 5.5 to 7 years).

In the test, the kindergarten students were required to complete sentences and apply the correct inflectional morphology rules, regardless of whether the word was a real word or a non-word. Findings from Berko's (1958) study suggested that the pre-schoolers had already developed a certain degree of inflectional knowledge, which enabled them to apply the inflectional rules in the non-word test. The Wug Test has been adopted and adapted by researchers in order to assess morphological awareness among children and adults from different L1 orthographical backgrounds, and results were relatively similar to those in Berko's (1958) study. While Berko's (1958) study focused on children's manipulation of the inflection form, Cazden's (1968) study documented inflectional forms in natural speech. Even though Cazden's (1968) participants were younger (i.e., 18 to 28 months) than Berko's (1958), and Cazden (1968) used different methods to analysis data, both studies have offered similar findings that inflectional morphological awareness develops even before formal language learning. Another longitudinal study by Nunes et al. (1997) that adapted Berko's (1958) non-word measures concluded that at an initial stage, the phonetic rules of spelling are an exception to a child and only at a later stage they significantly grasp the grammatical rules.

2.5 Orthography

The term orthography is defined by Varnhagen, Boechler and Steffler (1999) as the standard spelling that includes the spelling rules and patterns of a language, namely the grapheme-to-phoneme relationship in a language. Treiman and Cassar (1997) refer to orthography as "the understanding of the conventions used in the writing system of [the child's] language" (p. 631), while Henderson (1984) defines orthography as "the graphemic patterns of a written language and their mapping onto phonology, morphology, and meaning" (p. 1).

Perfetti (1997) describes the orthographical connection between spoken and written forms of a language system. The spoken system consists of multifaceted phonological units (i.e., phonemes, syllables, onsets, rimes, and morphemes) and the written form converts these multifaceted phonological units into the fundamental graphic units that are controlled by orthography. Furthermore, studies have shown that reading and writing skills are closely related to spelling (Ehri, 1997, 2000; Perfetti, 1997), which is an indicator of a learner's knowledge of alphabetic principles and fundamental to literacy in alphabetic orthographies (Joshi, Hoiem, Feng, Chengappa, & Boulware-Gooden, 2006), and a better writing skill derives from reading comprehension (Erdogan, 2011; Kieffer & Box, 2013). Therefore, spelling requires a complete retrieval of the correct letter-strings stored in the orthographic memory and

is more difficult than “pure recognition of orthographic representations required in reading” (Moll & Landerl, 2009, p. 306). Likewise, Park (2011) states that to spell correctly, the knowledge of mapping is an important aspect, as the alphabetical writing system involves the process of mapping graphemes-to-phonemes.

2.5.1 Orthographic Knowledge in L1 and L2 Acquisition

Orthographic learning represents the process of keeping newly formed words in lexical memory that can be retrieved later (Apel, 2011; Castles & Nation, 2006). This occurs when the information of the newly discovered word is formed and stored, including spelling patterns of the new word (Tims, 2013). Meanwhile, Share (1999) argues that the orthographic information pertaining to a learnt and saved word is referred to as orthographic learning because this process consists of forming new words, rather than existing lexical knowledge (Tims, 2013).

In contrast, orthographic knowledge refers to the saved orthographic information, for example, the way to spell a word (Apel, 2011), and a child’s capability of recognising suitable and unsuitable letter orders and their correlation to letter positions in words (Arab-Moghaddam & Sénéchal, 2001; Cassar & Treiman, 1997; Treiman, 1993; Stanovich & West, 1989; Zhao, 2011). This enables a child to spell words from memory and read words from sight (Arab-Moghaddam & Sénéchal, 2001), and these skills are developed through reading as the child gains the knowledge of spelling-to-sound (Stanovich, 1992). Orthographical knowledge can be divided into two categories: lexical and sub-lexical knowledge. Lexical knowledge refers to the letter knowledge and the position of a letter within a word (Apel, 2011; Perfetti, 1984); meanwhile, sub-lexical knowledge refers to extracting and recognising the permissible letter patterns within a language (Siegel, Share, & Geva, 1995). Orthographic knowledge is further associated with other linguistic features such as phonology, morphology, syntax, and semantics. These are important in order to be fluent in word recognition and reading comprehension (O’Brien et al., 2011), vocabulary (Chambré, Ehri, & Ness, 2017; Rosenthal & Ehri, 2008; Wang, Nickels, Nation, & Castles, 2013) and grammar learning (Arciuli & Monaghan, 2009).

In terms of orthography transfer, studies such as Best (1995), Detey and Nespoulous (2008), Flege, (1995), Sun-Alperin (2007), and Sun-Alperin and Wang (2011) have documented that L1 orthography largely influences L2 pronunciation and spelling. In addition, the findings of Silveira (2007, 2012) report that L1 orthography influences word-final English consonants. Meanwhile, Young-Scholten and Archibald (2000) argued that L2 adult learners mainly

depend on their L1 grapheme-to-phoneme relationship when producing L2 word sounds. Erdener and Burnham (2005) suggested that adult language learners rely on their visual input (i.e., L1 orthography) to deliver their output (i.e., words in L2). Silveira (2009, 2012) observed among adult Portuguese speakers that the transfer of the L1 grapheme-to-phoneme relationship to L2 could result in incorrect spelling, even in an English-speaking environment. Therefore, early introduction to orthographic knowledge is essential to reduce negative influence at later stage of L2 learning.

To measure lexical knowledge, Olson, Forseberg, Wise and Rack (1994) developed Orthographic Choice tasks that involve pairs of words, one real word and one non-word (e.g., *munk*, *monk*). This task taps into the learner's ability to recognise the correct spelling of a word, even though both options are phonologically acceptable options. They found that children who performed well in spelling were those with better orthographic knowledge, while those with less orthography knowledge tended to make spelling errors in the target words that are phonologically and visually similar. Juel, Griffith and Gough (1985) rationalised that spelling errors were produced when the child had not yet established letter-sound knowledge (e.g., spelt *rain* as *yes* or *wnishire*).

The Permissible Letter-Strings Task was developed by Cassar and Treiman (1997) to measure students' ability to recognise different orthographic letter patterns in a pair of words, one real word and one non-word letter pattern (e.g., *baff*, *bbaf*). A great deal of literature has also suggested that phonological and orthographic knowledge mutually facilitate each other, and that grapheme-to-phoneme knowledge provides young readers with a powerful tool to bind the spelling patterns of individual and multiple letters with their pronunciations in words (e.g., Ehri, 1991, 1998). Empirical research suggests that this orthographic knowledge may contribute significantly to word recognition skills in children over and above phonological factors (e.g., Cunningham, Perry, & Stanovich, 2001; Cunningham & Stanovich, 1990, 1993).

To measure knowledge of orthography learning, a number of assessments have been developed and administered by researchers (for example, Aaron et al., 1999; Ouellette & Fraser, 2009; Share, 2004), with the aim to assess learners' ability to recognise words and not depend merely on grapheme-to-phoneme correspondence (Aaron et al., 1999). One of the Orthographic Processing tasks was developed by Aaron et al. (1999), and consisted of 45 word pairs of three-letter homophones with two real words and one permissible non-word (e.g., *hear*, *here*, *heer*). The knowledge of orthography learning takes place when learners are able to recognise the

spelling pattern of the word and non-word, and circle the unfamiliar spelling pattern (i.e., *heer*). Therefore, orthographic knowledge is important to understand the orthography rules of a language. For example, in English (opaque) grapheme-to-phoneme relationship is irregular, while Malay (shallow) has an almost perfect grapheme-to-phoneme relationship. See Chapter 3 for more detail regarding this.

2.6 Phonological

Wagner and Torgesen (1987) define phonological processing as “the use of phonological information (i.e., the sounds of one’s language) in processing written and oral language” (p. 192). Phonological processing consists of three broad categories that depend on each other: phonological awareness, phonological retrieval, and phonological memory (Wagner & Torgesen, 1987). Therefore, studies related to phonological awareness are highlighted and the terminology “phonological processing” and “phonological awareness” are used interchangeably in the current study.

Konza (2011) states “phonological awareness is a broad term that refers to the ability to focus on the sounds of speech as opposed to its meaning, and it has a number of different levels or components” (p. 2). Allor (2002), on the other hand, asserts that phonological awareness is the understanding of sentences that are made up of words, that words are made up of groups of sounds (syllables), and that syllables are made up of individual sounds or phonemes. As a result, phonological awareness can be described when a child is able to break down written words into smaller units of sounds in spoken words (Durgunoğlu, 2002; Goswami, 1999, 2000), which is essential for a child to distinguish the connection between sounds and letters (Torgesen & Wagner, 1998). Acquiring this skill enables a child to apply the grapheme-to-phoneme rules to form new words.

According to Ciserio and Royer (1995), phonological awareness in alphabetical languages can be categorised into three forms: segmentation of words to syllables, onset-and-rime, and phonemes. Syllables are the largest sound unit that can be easily recognised in sequences of speech sounds. The syllable is followed by onset, which is the initial unit of a word, and rime is the sequence of letters, which is generally followed by a vowel and final consonant. Lastly is the phoneme, which is the smallest sound unit that distinguishes one word from another.

2.6.1 Phonological Processing in L1 and L2 Acquisition

Cisero and Royer (1995) argue that phonological awareness is only transferable to a language of similar orthographical structure. However, studies have reported that phonological awareness is transferable from L1 to L2, regardless of the orthographical structure of the language (Wagner & Torgesen, 1987). In other words, phonological awareness is not just limited to reading success in L1, but it contributes to the mastery of reading in L2, whether it is alphabetical or non-alphabetical, or transparent or opaque orthography.

It has been further highlighted by Ball (2003) and Juel (1988) that in order to be successful in reading and writing, phonological awareness is central as it supports the child in recognising alphabetical scripts, which later develop into literacy skills (Stanovich, 1992). Therefore, studies have concluded that there is a strong relationship between phonological awareness and reading ability (Carroll, Snowling, Hulme, & Stevenson, 2003; Nation & Snowling, 2004; Stahl & Murray, 1994), which is an important predictor of reading performance in L1 and L2 (Wei & Zhou, 2013). Furthermore, reading and spelling success is greatly predicted by phonological awareness (Chiappe, Siegel, & Gottardo, 2002). In learning English as an L2, Dickinson, McCabe, Clark-Chiarelli and Wolf (2004), argue that phonological awareness plays a vital role in the mastery of the language, especially learning to read in English (Clinton, Quiñones, & Christo, 2011), and one's L1 spelling and phonological awareness can predict one's L2 spelling achievement (Sparks, Patton, Ganschow, Humbach, & Javorsky, 2008). Although studies have established the relationship between phonological awareness and reading performance (Anthony & Francis, 2005), there are also studies that found a relationship between phonological processing and writing performance among pre-schoolers (Abbott & Berninger, 1993; Allor, 2002) and grade 4 to 6 monolingual and ESL students in Canada (Smith, 2011). This is because "writing fluency requires writers [to] produce correct spellings of words automatically" (Ocal & Ehri, 2017, p. 59) and "that phoneme-[to]-grapheme associations are important during the process of written language acquisition" (Landgraf et al., 2012, p. 130).

To assess phonological processing skill, Olson and colleagues (1985) developed a phonological skill assessment, the Non-Word Letter-String Task, to measure students' ability to produce the internal sound code and line the sound code of non-words, for example, *kard*, *carn*. Students choose the pseudo-homophone letter-strings that sound more like a word, for example, *kard*. The findings suggest that the students could have applied the grapheme-to-phoneme rules to

produce the sound of the pseudo-homophone letter-strings, and also by precisely activating in their lexicon the words or parts of words that are similar to the sounds of the pseudo-homophone letter-strings. Similarly, Zhao (2011) developed the Syllable Counting Task, which taps into students' understanding of segmenting words into sounds and syllables, and recognising sounds within words and phonemes. For example, the word 'perfect' has two syllables, 'per' and 'fect'. The results found a high correlation between the two phonological processing measures employed in Zhao's (2011) study (i.e., Syllables Counting Task and Speech Sounds Task).

2.7 Vocabulary Knowledge

In order to understand knowledge of vocabulary it is important to identify the three dimensions of lexical competence introduced by Henriksen (1999) to investigate vocabulary acquisition: (1) partial to precise knowledge; (2) depth of knowledge; and (3) receptive to productive vocabulary. The first dimension is referred to as "rang[ing] on a continuum rather than being known versus unknown" (Schmitt, 1998, p. 118). The second dimension is the depth of knowledge, which can be divided further into depth and breadth (Henriksen, 1999; Read, 2000). The difference between vocabulary breadth and depth is that the former is generally interpreted as the number of words that an individual knows (Meara & Wolter, 2004; Nation, 2001) and the latter refers to how well the learner knows the words (Meara & Wolter, 2004; Read, 2000). The last dimension is receptive vocabulary, which entails the knowledge to recognise the word formation and retrieve the word meaning through listening or reading (Nation, 1990), while productive vocabulary demonstrates and constructs a meaning either in spoken or written form (Fan, 2000; Nation, 2001).

Studies have reported that the knowledge of receptive vocabulary is stronger than productive vocabulary (Webb, 2008). This is because vocabulary is mostly learnt receptively (Webb, 2005), and contributes to the size of the productive vocabulary (Waring, 2002; Zhong, 2014). Therefore, it is impossible to separate these two aspects of vocabulary learning since both receptive and productive vocabulary knowledge are closely associated with each other (Karakoç & Köse, 2017). For example, the knowledge of receptive vocabulary takes place in reading and listening skills, yet learners can produce meaning using these two skills.

Vocabulary can be described as the knowledge of both spoken and textual words, and in order to comprehend a difficult text, learners need to understand a certain number of words (Lehr, Osborn, & Hiebert, 2004; Nation, 2001). Understanding a word is when a learner knows the

word's definition, terminology, semantic change and grammar (Harmer, 1991). Other scholars define vocabulary as the knowledge of words and meaning (Diamond & Gutlohn, 2006; Kamil & Heibert, 2005; Schmitt, 2000), a powerful carrier of meaning (Hubbard, 1983), an individual's collection of word knowledge (Brown, 1994; Hatch & Brown, 1995; Linse & Nunan, 2006), and the total number of words making up the language. In other words, vocabulary is the aspects of meaning, form and use (Nation, 2001).

Some scholars argue that without vocabulary knowledge, learners are inept at delivering their written or spoken message (Pan & Xu, 2011; Spade & Lightbrown, 2006; Wilkins, 1972). Therefore, whether in writing or speaking contexts, vocabulary is an essential instrument to convey meaning. On top of that, vocabulary knowledge has multiple facets (Nation, 2001; Richards, 1976; Schmitt, 1998), since vocabulary knowledge is considered to be a pillar of the curriculum (Berne & Blachowicz, 2008), understanding the meaning of a language (Berne & Blachowicz, 2008), and understanding the meaning of words and the system of ideas that goes with them (Laufer & Goldstein, 2004; Neuman & Dawyer, 2009). Vocabulary knowledge is also necessary in forming literacy blocks (Wang, Porfeli, & Algozzine, 2008), as it is a channel to convey messages, express ideas and feelings, and to review text (Al-Kufaishi, 1988; Naeimi, Foo, & Choo, 2013; Nezhad, Moghali, & Soori, 2015), and it is key for language proficiency (Mohd Nasir, Ab Manan, & Azizan, 2017).

Schmitt, Schmitt and Clapham (2001) claim that vocabulary is "the building block of language and [the] single most important area of L2 competence" (p. 55) that reflects children's and adult's academic achievement (Naeimi, Soltani, & Damavand, 2013; Sedita, 2005; White, Graves, & Slater, 1990). It is essential because it enables both children and adults to read, write and communicate well. Nichols and Rupley (2004) further assert that vocabulary knowledge is a crucial aspect of reading comprehension and writing, fluency in reading, and interacting with others. Moreover, having a good knowledge of vocabulary is vital in L2 because it allows an individual to carry on a conversation (Al-Khasawneh, 2012), and a good command of vocabulary knowledge will increase an individual's ability to read, write, listen and speak in an L2 (Nichols & Rupley, 2004). However, one's lexical inability could paralyse their ability to read, speak, listen or write (Wong, 2012).

2.7.1 Vocabulary Knowledge in L2 Writing

In addition, Stæhr (2008) highlighted that a significant number of studies have shown that vocabulary knowledge is a good predictor of reading and writing proficiency, largely in ESL

or EFL learning. In reading comprehension, vocabulary knowledge plays a major role in reading development (Gardner, 2007; Hsueh-Chao & Nation, 2000; Neuman & Dawyer, 2009; Richek, 2005). Studies have found a significant association between reading comprehension and vocabulary knowledge (Nation, 2001; Read, 2000). Meanwhile in L2 writing, vocabulary knowledge is essential in order to produce a written text (Gardner, 2007; Hemphill & Tiunan, 2008). It has an influence on one's writing (Coxhead, 2012; Coxhead & Byrd, 2007; Santos, 1988) and the quality of writing is mainly evaluated by one's vocabulary (Nation, 2001). Lexical proficiency affects the marks awarded by assessors for written composition (Astika, 1993; Daller & Phelan, 2007; Daller & Xue, 2007; Engber, 1995). As Nation (2001) argued, "vocabulary plays a significant role in the assessment of the quality of written work" (p. 178). Moreover, vocabulary is known as an essential predictor that motivates L1 and L2 learners in reading (Lervåg & Aukrust, 2010; Stæhr, 2008) and for the role it plays both in L1 and L2 reading comprehension (Zhang & Anual, 2008).

Evidently, vocabulary knowledge allows learners to have a better understanding of a text (Kamil & Heibert, 2005), language comprehension (Beck, McKeown, & Kucan, 2002; Widdowson, 1989), and language use (Beck et al., 2002; Widdowson, 1989). The knowledge of vocabulary not only enables a child to understand the word's meaning, but also the ability to apply it in context (Stahl, 2005). Thus, it is impossible to neglect the importance of vocabulary and this has become a leading topic in L2 research (Spade & Lightbrown, 2006) because researchers predict that when learning English or other foreign languages, learners learn vocabulary before mastering the more complex structures (Linse, 2006). Therefore, to be proficient in both reading and writing (Xu, 2010), the aspect of vocabulary knowledge cannot be ignored, particularly the ability to write in L2 (Laufer, 1998; Laufer & Nation, 1995).

In order to test one's vocabulary knowledge, a number of vocabulary assessments that measure vocabulary level in the ESL and EFL context—both receptive and productive vocabulary knowledge, have been made available by ELT practitioners. The initial test was developed by Nation in 1983, which was later republished in his book *Levels Test* (Version A) in 1990. Later in 1993, the test was revised and three more versions (Version B, C and D) were added to his book. The initial validation of the test by Read (1988) found the test to be reliable and valid, and measures according to the vocabulary level and can determine the vocabulary size of students who are not from an English-speaking background (Read, 2002).

Based on versions A to D, Laufer and Nation (1999) developed a productive level test that has been often used in vocabulary-based studies. Later, Schmitt, Schmitt and Clapham (2001) developed 'The Level Tests' based on the original version by Nation (1990). The Level Tests consist of five different sections (2000, 3000, 5000, 10, 000, and University Word List), that evaluates students' vocabulary knowledge from different levels. In this revised version, the level of a student's vocabulary knowledge is assessed. The words are selected based on the stratified sampling method from the General Service List (Kuera & Francis, 1967; Thorndike & Lorge, 1944; West, 1953) based on a ratio of three nouns, two verbs, and one adjective for each target word cluster. In the 1990 version, The University Word List was adopted from Xue and Nation (1984), and more recently, in the 2001 version, the University Word List was adopted from Coxhead (1998, 2000). The items have undergone a series of assessments to establish reliability and validity. In that vein, the tests were administered among native speakers and speakers of English as a second, or foreign language. The outcomes from the validation reported that the test measures students' level of vocabulary (e.g., lower to higher frequency words level) and the construct of lexical knowledge, and the test was also found to be pedagogically applicable (Schmitt et al., 2001).

However, over the years, 'The Level Tests' have been criticised for a number of reasons: (1) for not using words that are in current use (Webb & Sasao, 2013; Xing & Fulcher, 2007); (2) the possibility of taking a guess for the answer (Webb, 2008); (3) confusing the examinee with the multiple matching format (Kremmel, 2015; McLean & Kramer, 2015; Stewart & White, 2011); and (4) the test items being independent as they measure definite quality of knowledge (Beglar & Hunt, 1999; Culligan, 2015; Kamimoto, 2014). Notwithstanding, there are presently no other more suitable or standardised tests that are able to measure vocabulary knowledge of students at different levels (Kremmel & Schmitt, 2018; Meara, 1996).

2.8 Grammar Knowledge

In his book, *Aspects of The Theory of Syntax*, grammarian Chomsky (1965) states that language is an innate ability, which is distinctive to human species and formulated in the mind; therefore, grammar is the mirror of what goes on in the mind. In agreement with Chomsky, without a good grasp of grammar, the receiver and the sender will have difficulties in understanding each another. Grammar is regarded as an important component for communication to take place because it shows how language is used (Ismail, 2010; Wang 2010). Therefore, learning grammar not only enables learners to express themselves in clear, succinct and meaningful

sentences, but it also improves learners' competencies in the areas of listening, speaking, reading and writing (Goode, 2000; Sams, 2003; Savage, Bitterlin, & Price, 2010).

According to Sinclair (2010), grammar is the study of the way we use language, and importance is placed on the correct usage and follows a set of rules. Meanwhile, Chitravelu, Sithamparam and Teh (2005) refer to grammar as rules that govern how words of a language can be arranged in order to deliver an idea or message. Azar (2007) views the role of grammar as to "help students discover the nature of language, i.e., that language consists of predictable patterns that make what we [speak], read, [listen], and write intelligible" (p. 3).

Grammatical knowledge, on the other hand, is the fundamental aspect for clearer communication of written meaning because writing is a complex and challenging skill for many students (Chin, 2000; Fearn & Farnan, 2007; Widodo, 2006). Mart (2014) points out that grammar plays an essential role in a learner's writing because grammatical knowledge enables the student to execute a writing task clearly. Hence, grammar in writing allows students to better comprehend the language use when they write a composition (Hillocks & Smith, 2003), and it facilitates students to apply the right mechanical and grammatical conventions to produce an effective written work (Anderson, 2005; Fu, 2003). Therefore, grammar knowledge is important because it allows students to construct error-free sentences, which enable students to convey messages correctly, especially for those who are learning English as an L2.

2.8.1 Grammar Knowledge in L2 Writing

In L2 learning, grammar knowledge is regarded as the predominant aspect that facilitates ESL students in their L2 writing. Scholars have proposed that explicitly teaching the mechanics and parts of speech as separate skills is not beneficial for students, rather, integrating these aspects in the context of writing would be more beneficial (e.g., Calkins, 1980; DiStefano & Killion, 1984). In the literature it has been documented that grammar knowledge has a positive effect on L2 writing (Sasaki & Hirose, 1996; Schoonen et al., 2003; Schoonen et al., 2011), and is a strong predictor of L2 writing (Schoonen et al., 2011). Meanwhile, Hinkel (2002) argues that when ESL students learn their L2 grammar by exposure to and communicating in L2, they may be able to relate the L2 grammar knowledge and skills in their writing. This is because accuracy in L2 grammar plays an important role in L2 writing among ESL students as it determines the quality of L2 written work. Therefore, ESL learners need to master grammar knowledge in order to be proficient in their L2 writing. This encourages ELT practitioners to teach the aspects of L2 grammar (Hammerly, 1991) for ESL learners to be more effective in L2 writing

(Charanjit et al., 2017) and capable of communicating their intended meaning in written form (Amiri & Puteh, 2017). However, others have suggested that by paying attention and giving feedback on grammar in ESL composition, L2 students will gradually advance in grammar accuracy by avoiding making the same errors and increasing the overall quality of their written composition (Fathman & Whalley, 1990; Myles, 2002; Naeini, 2008).

Ellis (1997), on the other hand, pointed out that the complexity of a number of L2 linguistic features in grammar (e.g., verb, tenses) are best to be taught since it is not feasible to learn them through communication. In English, the most challenging aspect of grammar is tenses, because the wrong usage could change the whole meaning in writing (Hinkel, 1992, 1997). Therefore, Vaughn (1991) argues that L2 essays graded holistically could be awarded lower marks for incorrectly used tenses. This indicates that mastering and expressing the grammatical rules by memorising is insufficient, as the students should be well informed on how to apply the rules and the errors or mistakes they make when the rules are applied incorrectly (Ellis, 1997; Carter, 1997).

Studies that took place in the Malaysian context have shown that many Malaysian ESL students face challenges in English essay writing because they tend to make grammatical errors (Darus & Subramaniam, 2009; Ghabool et al., 2012; Wee, 2009), particularly with tenses (Darus & Khor, 2009; Vahdatinejad, 2008). Others have reported that the grammatical errors produced in English essays by Malay students are primarily caused by L1 to L2 transfer (Musa, Lie, & Azman, 2012). Myles (2002) proposes that students who are proficient in their L1 writing are able to perform well in their L2 writing, while those who lack the proficiency in L1 writing could be hindered in their L2 writing performance.

Earlier studies have identified that those who are proficient in L2 generally do not depend on their L1 to write (Jones & Tetroe, 1987). However, less proficient L2 students highly depend on their L1 to write in their L2 (Cumming, 1989; Uzawa & Cumming, 1989), but this interferes with their L2 writing performance (Yin & Ung, 2012). Meanwhile, based on her findings among ESL students in Malaysia, Wong (2012) reported that ESL students find it difficult to figure out how to apply the L2 grammatical rules when it comes to English essay writing. Therefore, grammar knowledge is important to construct a proper sentence and convey the message correctly both in written and spoken language. This suggests that failure to acquire grammar knowledge may result in a struggle to get the message across, especially in English essay writing.

In order to measure L2 learners' linguistic competence, the Grammaticality Judgement Tests have been used among SLA researchers. These tests were developed to show the difference between one's competence and performance (Ellis, 1990). In theory, the tests should assess one's linguistic competence; however, the tests reflect a number of other underlying factors involving metalinguistic knowledge (Birdsong, 1989). This unfortunately has led the tests to be scrutinised and questioned by SLA scholars concerning the reliability of the test items (Ellis, 1991; Gass, 1994) and the objectivity of the tests (Ellis, 1991; White, 2003). Studies by Han (2000) and Tabatabaei and Dehghani (2012) evaluated the reliability and validity of the test items among adult ESL and EFL college students, and concluded that the tests demonstrated low reliability and the objective of the test to measure students' grammatical knowledge and reflect on their linguistic competence is debatable.

2.9 Key Studies in the Global Context

The following sections discuss cross-linguistic transfer studies (e.g., Juel Griffith, & Gough, 1986; Maclean, Bryant, & Bradley, 1987; Schoonen et al., 2011; Seymour et al., 2003; van Gelderen et al., 2007; Zhao, 2016, 2017) that investigated transfer between L1 to L2/FL, or from L2/FL to L1 among young and adolescent ESL/EFL learners internationally. These were regardless of their L1 orthography (e.g., Keenan, Betjemann, & Olson, 2008; Seymour et al., 2003; Shanahan, MacArthur, Graham, & Fitzgerald, 2006) in order to predict reading, writing proficiency, vocabulary, grammar or spelling accuracy.

A study by Zhao, Joshi, Dixon and Chen (2017) investigated metalinguistic awareness transfer by measuring morphological, phonological and orthography awareness in spelling among third-grade Chinese students learning EFL and monolingual secondary school students from the USA who spoke English as their L1. Their study reported that orthography and morphological awareness were significant among monolingual students, while morphological, phonological and orthography awareness were found to be significantly related to spelling scores among EFL learners after controlling for vocabulary. In their findings, they also discovered that EFL learners scored lower in phonological awareness measures than monolingual learners.

Zhao, Joshi, Dixon and Chen (2017) further argued that their outcomes were due to English instructions received in the EFL context, where teachers emphasised more morphological structure in the TL (i.e., vocabulary) than the structure of orthography or phonology. However, their findings were in contrast to Zhao, Quiroz, Dixon and Joshi (2016), who found that

bilingual learners performed better in real word spelling tasks compared to their monolingual counterparts. The reasoning for the different outcomes between the two studies could be largely that the participants who were ESL learners received instruction in English, which gave them the advantage and exposure to master the spelling skills of the TL over and above their monolingual counterparts.

In the late 1980s a number of studies were published that investigated early literacy acquisition among young learners. Following is a discussion of this research that is relevant to this study. The study by Juel et al. (1986) among first-grade children in the USA from different ethnicities (i.e., Anglo, Hispanic and African) found that early teaching in phonic awareness is important for children in later grades in order to develop spelling-sound knowledge. The second was a longitudinal study by Maclean et al. (1987) among monolingual pre-schoolers in Britain from different socioeconomic statuses, who reported that teaching children nursery rhymes assisted their phonological skill development at a later age. Their findings suggested that having phonemic awareness was important for a child to read and write because spelling-sound relationship knowledge is associated with phonemic awareness. Therefore, early intervention or introduction to phonological processing skills is necessary as it helps in later development of word recognition, spelling, reading and writing, and these skills are subsequently transferred to L2 learning.

Meanwhile, Durgunoğlu, Nagy and Hancin-Bhatt (1993) examined first-grade Spanish-English bilingual learners' cross-linguistic transfer in reading. The participants were in a bilingual remedial programme and had limited exposure to listening and speaking in English. They sought to investigate whether the phonemic awareness that the learners acquired at home and in school in their L1 would enable them to transfer the word recognition in L2 by administering two phonological awareness tasks-syllables and onset-rime units. The results of their study reported that the Spanish Word Recognition Task was closely related to Spanish phonological awareness, and Spanish phonological awareness and the Word Recognition Task in English were found to be significant. Based on their results, they argued that young Spanish learners who achieved in their phonological awareness task were better able to read word and non-word tasks in English compared to low achievers. Therefore, they suggested that the significant predictor of the word recognition task was phonological awareness, both within and across languages, despite the learners having less developed reading skills in English.

Similar to the study by Durgunoğlu et al. (1993), the findings of Cisero and Royer's (1995) longitudinal study on phonological transfer among young Spanish-English bilingual learners demonstrated that instruction in Spanish phonology enabled younger learners to improve their phonological processing in L2 (English). Durgunoğlu and Roediger (1987) and Garcia (1991) recommended that in order to achieve the proposed research outcome (e.g., in reading performance), it is important to implement suitable measures to investigate the process of transfer involved among bilingual learners, as the choice of measures could affect the findings of the study. For example, a study by Nakamura, Koda and Joshi (2014) reported that L1 phonological awareness is the prime predictor of L2 decoding skill that promotes L2 reading comprehension. Similarly, other studies that looked at young learners learning to read have provided evidence that L1 and L2 phonological awareness are positively associated (D'Angiulli, Siegel, & Serra, 2001; Geva & Siegel, 2000), while young learners who were weak in their reading skills were weak both in L1 and L2 phonological awareness (Carlisle & Beeman, 2000; Melby-Lervåg & Lervåg, 2011; Verhoeven, 2000; Wade-Woolley & Geva, 2000). In addition, studies have also recorded that phonological awareness is not only associated with vocabulary growth, but also syntactic and grammatical structure of written outcomes among young Spanish-English learners (dos Santos & Befi-Lopes, 2011).

A longitudinal study by Leppänen, Niemi, Aunola and Nurmi (2006), investigated Finnish pre-schooler and primary school learners' reading and spelling development. A series of measures (see Leppänen et al., 2006 for the list of measures) were administered in Finnish from preschool to grades 1 to 2: twice during preschool, twice during grade 1, and once during grade 2. The results indicated that younger Finnish pre-schoolers' phonological awareness played an essential role in their reading and spelling development, and showed that the level of spelling skills predicted the pre-schooler's level of reading skills at the end of pre-school. Their study also outlined that letter knowledge occurs in reading and spelling after instruction in reading. Leppänen and colleagues (2006) findings were in line with another study by Leppänen, Aunola, Niemi and Nurmi (2008), where the Finnish pre-schoolers' phonological awareness predicted their reading skills (i.e., reading comprehension, text reading, and word chain reading). The reading measures were administered when the children were in grade 4. Two other longitudinal studies by Silvén, Poskiparta and Niemi (2004), and Silvén, Poskiparta, Niemi and Voeten (2007) offered the same finding that early exposure to phonological awareness is necessary in the development of vocabulary knowledge and inflections, as it helps in the later improvement of phonological awareness and reading skills.

A five-year longitudinal study by Tafa and Manolitsis (2008) examined reading, spelling and phonological awareness from kindergarten to grade 4, among precocious and non-precocious Greek children. The results showed that due to the nature of the language (shallow orthography), the learners had acquired the phonological structure (phoneme-grapheme rules) of the language at an early age. This knowledge developed as they progressed from grades 1 to 4, and both advanced and intermediate learners showed similar development in their literacy. However, it was reported that advanced readers had rapid growth in their literacy development compared to intermediate readers. Their findings are supported by Aidinis and Nunes (2001), who reported that phonological awareness strongly influences children's literacy development, especially in reading and writing in Greek. De Sousa, Greenop and Fry (2010) studied the effects of phonological awareness in English spelling among Zulu-English bilingual learners and offered similar findings. They investigated phonological awareness in Zulu-English bilingual learners and documented that proficiency in L1 (Zulu) spelling enabled the child to master spelling in L2 (English).

The findings of Seymour et al. (2003) suggest that young learners retrieve their lexical knowledge directly from learning to read and spell in languages with deep orthography (e.g., English). This is similar to the findings of Zhao et al. (2017), who revealed that orthography awareness was the main predictor of spelling in English, which was consistent with a number of studies among a similar level of participants who spoke English as their L1 (i.e., Nagy, Berninger, Abbott, Vaughan, & Vermeulen, 2003; Ouellette & Sénéchal, 2008). Lété, Peerean and Fayol (2008) further claimed that younger learners apply the indirectly learned rule, which they indirectly learned through reading and spelling instruction, when they spell in English due to the opaque nature of the English language.

Following the same concepts, studies in grammar proficiency (e.g., Bindman, 2004; Jia, Aaronson & Wu, 2002; Jia, Aaronson, Young, Chen, & Wagner, 2005) suggest that regardless of the learners' L1 orthography (i.e., alphabetic, syllabic, logographic, etc.), early exposure to L2 grammar contributes to their improvement in grammar. This suggests that as learners' L2 proficiency increases, less transfer is evident (Lee, 2016; Leikin, Schwartz, Share, 2010; Talebi, 2014). On the other hand, a study by Amaro, Campos-Dintrans and Rothman (2017) reported that Mandarin and Japanese speakers were unable to transfer their L1 to L2 morpho-syntactic knowledge due to the absence of target-like syntactic features in L1, but not in the case of Spanish speakers. Therefore, the similarity between L1 and L2 can possibly enhance learners' morpho-syntactic knowledge in L2 (Ivaska & Siitonen, 2017).

In addition, a longitudinal study by Schoonen et al. (2011) conducted with young Dutch students in the Netherlands investigated the transfer between Dutch as L1 and English as FL in English writing. Their study included measures of metacognitive knowledge (i.e., through questionnaires), linguistic knowledge (i.e., grammar, vocabulary and spelling), and speed of lexical retrieval and sentence constructions, which were assessed both in Dutch and English for two years among grades 8 to 10. The findings suggested that EFL writing proficiency was strongly correlated to linguistic knowledge and fluency than L1 writing. The findings of Schoonen et al. (2011) are paralleled to van Gelderen et al. (2007), who found significant association between L1 proficiency and EFL reading proficiency, and Chuang (2010), who found cross-linguistic transfers between EFL reading ability and L1 reading proficiency among adolescent Taiwanese students. In contrast, Smith (2011) studied writing proficiency among grade 4 to 6 monolingual and ESL students in Canada, and found that the predicated variables (i.e., vocabulary, syntax, phonological processing, pseudo-word reading, and spelling) did not predict individual differences in development of writing proficiency.

2.10 Key Studies in the Malaysian and Singaporean Context

There have been several studies (e.g., Gomez & Reason, 2002; Joshi et al., 2006; Liow & Lau, 2006; Liow & Lee, 2004; Nair, 2013) that were conducted in Malaysia and Singapore, investigating cross-linguistic transfer between the Malay and English languages. These primarily looked at younger learners transferring their knowledge of morphological, orthographical and phonological features from Malay (L1) to English (L2), or from English (L2) to Malay (L1). Singapore is included because the Malay language is also used in Singapore. These studies documented cross-linguistic transfer of morphological, orthographical and phonological processing in order to predict young learners' reading performance and spelling accuracy, with the exception of Wong's (2012) study that investigated adult ESL learners' L2 proficiency in L2 writing. The following paragraphs discuss the findings of the abovementioned studies.

Liow and Lee (2004) selected 75 spelling tests from Lee, Liow and Wee's (1999) database to investigate the proficiency level of younger Malay learners in Singapore. The results indicated that Malay-English bilingual learners depend on syllables and morpheme knowledge, even though orthographically, Malay is more transparent than English in phoneme-to-grapheme correspondences. Meanwhile, Joshi et al. (2006) and Liow and Lau (2006) documented that Malay-English bilingual children in Singapore predominantly depend on their phonological

awareness where spelling is concerned. Similar outcomes were found by Dixon, Zhao and Joshi (2010) among Malay-English bilingual kindergarten children in Singapore by controlling the effect of age in their outcome variables. Based on these four studies, the findings suggest early spelling knowledge is based on orthographic and phonological awareness. As such, introducing these skills in classroom teaching will be beneficial at a later stage of learning L2, because learners will be able to transfer from one language to another.

Gomez and Reason (2002), on the other hand, studied reading performance and phonological skills among young Malay learners in Malaysia. They adopted the standardised measures of the Phonological Assessment Battery from Gallagher and Frederickson (1995) and the Wechsler Objective Reading Dimensions to measure reading and spelling skills. The outcomes indicated that the students were able to perform better in the Non-Word Reading Task. This shows that the students had a high level of phonological processing skill, in spite of Malay being a transparent language. This could be due to the early exposure to the Malay orthographic knowledge, where students were taught to pronounce a consonant with a vowel, which eventually helped them in decoding words in English. The results showed that Malay-English bilingual learners were able to transfer their phonological processing skills from L1 to L2.

Their findings were supported by Katz and Frost (1992), who claim that English learners from a regular orthography background may have an advantage in terms of phonological processing skills compared to those with an irregular orthography background. Moreover, Mohd Samuddin and Krish (2018) assessments to measure spelling errors and found that young Malay-English bilingual learners performed better in their spelling task of phonology and morphology spelling tasks rather than orthography spelling tasks. They reported that the reason for such outcomes is because of “the salience of orthography in the early stage of L2 learning” (Mohd Samuddin & Krish, 2018, p. 56). This suggested that students should be taught L2 orthographic knowledge in order to avoid negative transfer of L1 to L2.

Nair (2013) examined cross-linguistic transfer of phonological and morphological awareness among Malay-English bilingual primary school students, aged seven to nine from three urban schools in Peninsular Malaysia. She developed and adopted Malay and English measures, that consisted of four spelling tasks and 11 awareness tasks. Her findings indicated that both Malay and English phonological and morphological awareness correlated between the two languages. The Malay phonological and morphological awareness predicted English spelling accuracy, especially with regular words and Malay words that share the same root words in English. As

such, she concluded that the L1 awareness was able to predict the students', spelling accuracy and transfer from L1 to L2.

Wong (2012) investigated predictors of L2 writing among adult ESL students both in New Zealand and Malaysia. She administered writing strategy questionnaires, vocabulary, timed essay, jigsaw reading and colour-naming tasks in English to predict L2 writing proficiency. The study took place in New Zealand and reported that ESL students' L2 writing proficiency (mainly vocabulary size) was associated with L2 writing performance. She also reported that L2 linguistic barriers affected their L2 writing performance, and errors were produced due to L1 interference. Meanwhile, the study that took place in Malaysia reported that L1 use correlated with L2 writing performance. She argued that the use of L1 in L2 writing was influenced by the level of L2 proficiency and their academic experience. She concluded by saying that it is essential to develop and increase L2 proficiency in order to decrease errors caused by L1 interference to increase L2 writing performance among adult ESL students.

2.11 The Need for the Current Study

Over the years, studies of cross-linguistic transfer have provided evidence that morphological, orthographical and phonological skills can be transferred between and/or within languages to facilitate L2 learning, regardless of the learner's L1 orthography (Cisero & Royer, 1995; D'Angiulli, Siegel, & Serra, 2001). Such L1 and L2 research has led to theories arguing for the potential influence of L1 in L2 learning and processing (Dulay & Burt, 1974; Wang et al., 2005). It has also led to that the view that L1 proficiency has positive effects on L2 learning (Bialystok, 1991; Wong, 2012), that those with high levels of L1 proficiency usually show better performance in measures of L2 skills. However, in contrast to these studies that advocated for positive L1 transfer to L2 (Gomez & Reason, 2002; Nair, 2013; Yu, 2004), there are a number of studies that have highlighted negative influences of L1 on L2 (Keung & Ho, 2009; Van Weijen et al., 2009). Therefore, while there seems to be a consensus that L1 will influence L2 learning and processing, whether this influence is positive or negative is still debated (Bulay et al., 1982; Cummins, 1983).

In addition to the continued controversy related to positive or negative influences of L1 on L2, studies of morphological, orthographical and phonological processing have been primarily conducted by looking at the development of these skills at the very beginning of language learning (Gomez & Reason, 2002; Nair, 2013). Additionally, much of this work is found within the reading research literature (e.g., Caravolas, Hulme, & Snowling, 2001; Joshi et al., 2008;

McCutchen, 2011), and includes research looking at how certain linguistic features are transferable across languages for reading comprehension (e.g., Altmisdort, 2016; Figueredo, 2006). In contrast, research on writing, especially L2 writing, has been neglected (Smith, 2011).

Therefore, further research looking at older learners in terms of their L2 writing skills, and the potential influence of morphological, orthographical and phonological processing on these skills, both across and within languages, would provide additional data on which to develop models of L2 acquisition and inform teaching practices. Given that the English is the L2 that has been the subject of most studies of language transfer, this is the natural L2 to study in such work. Furthermore, given that few studies of Malay can be found in the literature, work in this L1 should also provide relatively unique data on which to develop theory and practice. Each of these points is considered in more detail below and across the rest of this thesis.

Research on L1 writing proficiency argues that the most important linguistic aspects that are required for effective writing are vocabulary, grammar, morphology, orthography and phonology, and the ability to access this linguistic knowledge is essential for writing performance (Grabe & Kaplan, 1996; Schoonen et al., 2003; Trapman et al., 2018). Although these linguistic features have been considered basic skills, and therefore more variable in younger writers, L2 writers may also be at a disadvantage if they are not competent in these skills, and the development of L2 competence may mean that these skills are more variable in older L2 writers than expected based on L1 models. Researchers in the field of L2 writing have argued that it is necessary for both younger and older L2 learners to be proficient in these linguistic features (Unsworth, 2005) to perform well in L2 writing tasks (Wong, 2012). Researchers such as Al-Gharabally (2015), Maarof and Murat (2013) and Schoonen et al. (2003), have also considered L2 writing as one of the most difficult skills to master, because writing covers a wide range of language abilities. It is also essential for L2 learners to acquire the ability to differentiate the linguistic features of their L1 and L2 (Crossley & McNamara, 2009; Sasaki & Hirose, 1996; Silva, 1993). In this study, both Malay and English are linguistically and structurally different; for example, Malay has a more regular letter-to-sound relationship than English (see Chung et al., 2014; Helms-Park et al., 2016; Shak et al., 2016). As a result of the complex nature of L2 writing, and the differences between Malay and English, older L2 learners may still be developing their level of morphology, orthography and phonology processing in their L2 to apply these skills when performing L2 writing tasks. Therefore, it is important to investigate these basic underlying skills and their potential to be transferable across languages (from the more proficient L1 to the less developed L2, for

example), in order to improve our understanding of the processes underlying older L2 learners' writing ability.

As supported in the literature review, each linguistic feature that this study investigates has a role in terms of spelling, understanding or recognising the meaning of words and forming new words, which are skills considered important in writing. For example, adhering to the flow of ideas in the writing process requires the basic ability to spell (Moats, 2005; Singer & Bashir, 2004), which in turn requires morphological awareness to form new words from the root word and orthographic knowledge to form and store spelling patterns, while phonological processing is necessary to understand the grapheme-to-phoneme rules of a word. Additionally, English being a morphophonemic language (Venezky, 1970) with irregular grapheme-to-phoneme rules, requires morphological awareness to connect the form and meaning of words, and both phonological processing, and orthographic knowledge to spell words correctly.

Studies that have considered the current L2 writing situation in Malaysia have reported that the challenges faced by Malay-English bilingual students in L2 writing are mainly associated with L1 interference in addition to a lack of L2 knowledge. In order to understand and address the L2 writing situation, studies in Malaysia have given attention to error analysis, writing strategies and feedback in L2 writing across primary to tertiary education levels (Botley, Hakim, & Dillah, 2007; Darus & Khor, 2009; Darus & Subramaniam, 2009; Yahya, Ishak, Zainal, Faghat, & Yahaya, 2012).

Despite the importance of L2 (English) writing for the Malaysian education system and individual students, there have been insufficient published studies investigating L2 writing ability to inform theory and practice. This is especially the case for Malay-English adult learners; there have been very few studies on the development of basic underlying skills in L1 (i.e., morphology, orthography and phonology) and whether these may transfer across languages and increase Malay-English adult bilingual learners' L2 writing ability. Given the important role that writing plays in academics success (Graham & Perin, 2007; Raoofi, Chan, Mukundan, & Rashid, 2014) and work settings (Gill, 2004; Stephen, 2011), it further justifies the importance of this study among adult L2 learners.

As explained in the previous sections of the literature review, L2 vocabulary and grammar are two components of language processing that have been used to investigate L2 writing performance (Niedo, Abbott, & Berninger, 2014; Wong, 2012), because of their significant and positive effects on L2 writing ability (Hinkel, 2015)—vocabulary supports word finding and

grammar supports sentence cohesion. The primary aim of this study is to look at the specific influence of morphology, orthography and phonology skills in L2 writing ability. However, as well as their association with L2 writing, vocabulary and grammar may also influence these underlying skills. For example, vocabulary and grammar have been argued to be associated with aspects of morphological processing (Bindman, 1997, 2004; Fracasso, Bangs, & Binder, 2016; Kieffer et al., 2013; Kieffer & Lesaux, 2012; Seymour et al., 2003), orthographical knowledge (Arciuli & Monaghan, 2009; Chambré et al., 2017; Rosenthal & Ehri, 2008; Wang et al., 2013) and phonological processing (dos Santos & Befi-Lopes, 2011; Silvén et al., 2004; Silvén, Poskiparta, Niemi, & Voeten, 2007). Therefore, to look at the specific effects of morphology, orthography and phonology, levels of vocabulary and grammar were controlled in the current study, since if they were not, any relationship between the three underlying skills of focus and L2 writing could be because of the common influence of vocabulary and grammar.

2.12 Summary

This chapter detailed the findings from various researchers of the concept of cross-linguistic transfer in the field of SLA, particularly among young bilingual learners, which is the platform for developing and adopting Malay and English measures for the study. According to this discussion, a great number of studies looked solely at the development of reading comprehension among young bilingual learners, regardless of the language structure (e.g., alphabetical languages and non-alphabetical languages). Similarly, studies in Malaysia and Singapore investigated young Malay-English bilingual learners; linguistic development generally in reading comprehension. Their findings have documented the degree of transfer between and within the learner's L1 and L2, either negative or positive depending of the learner's proficiency and exposure to English.

In terms of ESL writing performance, most studies in Malaysia looked at error analysis, feedback in written composition or L2 writing strategies from primary to tertiary level. Based on the concerns raised and reported by ELT practitioners and people alike, the researcher senses the urgency where writing is concerned in the Malaysian context. The present study focuses on L2 writing ability among adult Malay-English ESL learners in Peninsular Malaysia (as detailed in Chapter 1). Since reading and writing skills are closely related, the researcher acknowledges the measures administered and developed in cross-linguistic transfer studies focusing on reading development among bilingual learners to develop and adapt ESL writing measures to tap into the three main linguistic features of interest of this study: morphology, orthography

and phonology processing. Notably, vocabulary and grammar are two other important linguistic skills that contribute to, and are important for, L2 writing. Studies have found grammar and vocabulary to be associated with morphology, orthography and phonology. Therefore, these two skills were controlled in order to look at the specific effect of these basic underlying skills in L2 writing. Also, as discussed in the literature, three linguistic skills are interrelated where one supports the other, which is important when understanding the skills being exposed at an early stage that will later influence L2 writing ability.

The next chapter, Chapter 3, briefly highlights the origin, the development and the status of the Malay language in Malaysia. Moreover, the chapter also details linguistics aspects of the Malay language, the similarities and differences between the Malay and English languages, and the role English plays in school and tertiary education in Malaysia. This will provide an understanding of how the two languages operate, are taught in schools and how they are distinguished in terms of the three linguistic skills. This will also further explain the importance of examining basic underlying skills among Malay-English adult bilingual learners in Peninsular Malaysia. In addition, this will further clarify the differences between the two languages that were taken into consideration in the process of developing and adapting the Malay and English measures administered in this study as detailed in Chapter 4.

CHAPTER 3

The Malay Language and Malaysian Education

3.1 Introduction

This chapter describes the origin of the Malay language, the development and status of the Malay language in Malaysia and its neighbouring countries, as well as the orthography, phonology and morphology of the language. This chapter also compares the differences and similarities between the Malay and English languages to show how the two languages contrast in the key features that led to this study, and within the context that this study has been carried out. This chapter provides a background understanding of the Malay language and its context to the rationale for this study. This study was administered in one of the higher public education institutions in Peninsular Malaysia with Malay-English adult bilingual students who speak *Bahasa Melayu* (the Malay language) as their first language (L1) and English as their second language (L2). Therefore, this chapter also gives an overview of the Malaysian education system, English language proficiency tests in Malaysia and the role of English at the tertiary level.

3.2 A Brief History of the Origin of the Malay Language in Malaysia

The Malay language is a member of the Malayic subgroup of the Austronesian language family (Blust, 2013; Clynes & Deterding, 2011; Paauw, 2009). This subgroup includes languages such as Gayo in Sumatra (Eades & Hajek, 2006), Minangkabau in Sumatra, Iban in Borneo, a number of local dialects of Malay found in Borneo, Sumatra, Peninsular Malaysia, and eastern Indonesia (Adelaar, 2005). Malay is widely spoken in Southeast Asia, with speakers numbering 250 million who live in Malaysia, Singapore, Brunei and Indonesia (Bright, 1992; Tadmor, 2009). These four countries comprise the main Malay region (Gupta, 2003).

In Peninsular Malaysia, the standard varieties of the Malay language are said to be derived from the Malay of Johor (Johor-Riau), a southern state in the Malaysian Peninsular because there is a high degree of common intelligibility among the dialects (Asmah, 1992; Steinhauer, 2005). This Standard Malay language spread during the reign of the Johor Empire in the 19th century (Asmah, 1976; Bright, 1992), particularly through literature (Asmah, 2004). The Malay pronunciation is based on Johor-Riau Malay, which was implemented by the Malaysian government in 1998 (Asmah, 2004). Because of this, Johor-Riau Malay rose to be the Standard Malay language used in Malaysia today (Kassin, 2000).

3.3 The Development of the Modern Malay Language in Malaysia

In 1888, the Society for the Learning and Teaching of Linguistic Knowledge was established to initiate the Malay language corpus. This society was later renamed the Royal Johor Society of Malay Language and Literary Works in 1935 where they arranged and compiled the guidelines for Malay spelling, grammar, punctuation, letters, essays and terminologies.

Moreover, Za'aba who is known as the "Father of Modern Malay Language" (Adelaar & Himmelmann, 2005, p. 70) produced a Malay grammar series in 1936 that modernised the structure of the classical Malay language. This modernised version became the foundation for the present Malay language when the Malay language underwent standardisation influenced by Received Pronunciation (Asmah, 1992). The most prominent change was from the classical passive form to modern active form in syntax.

The Institute of Language and Literature (*Dewan Bahasa dan Pustaka*), a language planning agency, was formed in 1956 for the purposes of planning, developing, standardising, modernising and publishing in the Malay language (Hanewald, 2016; Quah, 1999; Stephen, 2013; Zaidi & Mikami, 2007). Their initial task was to lead and combine planning and research in enriching the Malay vocabulary for science and technology purposes through the creation of technical terms in the Malay language (Heah, 1989; Stephen, 2011).

In order to be in line with the current development, The Institute of Language and Literature also published magazines, journals and books for referencing. Gradually, the attempt to develop and standardise the spelling and pronunciation of the modern Malay language, which took place in 1967, resulted in a text form that could be used in schools and textbooks. To date, approximately 70,000 new terms have been introduced by the agency, which, in this study, is referred to as Standard Malay (SM).

3.4 The Status of the Malay Language in Malaysia and Neighbouring Countries

At present, the sole medium of instruction in the Malaysian education system is *Bahasa Melayu* with English being the official second language. This was progressively enforced by the *Education Acts* of 1963 and 1971 to implement Malay as the medium of instruction and retain English as the second language. In 1970, the medium of instruction was replaced from English to Malay in English medium schools, and by 1978, all public secondary schools in Malaysia used the Malay language as the medium of instruction (Paauw, 2009; Stephen, 2013). In 1982,

public universities changed their medium of instruction from English to Malay (Watson, 1983). See details in Section 3.8 on the Malaysian education system.

Malay is the national language of Malaysia, Singapore, Indonesia and Brunei (Fern & Jiar, 2013; Soderberg & Olson, 2008; Tadmor, 2009; Zaharani, 1998). Ever since Malaysia gained independence in 1957, the Malay language has been known by several names: *Bahasa Kebangsaan* (the national language), *Bahasa Malaysia* (the Malaysian language) and *Bahasa Melayu* (the Malay language). Presently, *Bahasa Melayu* is the Standard Malay language in Malaysia and officially functions as the national language. Similarly, it is known as *Bahasa Melayu Singapura* (the Singapore language), *Bahasa Melayu Brunei* (the Brunei language) and *Bahasa Indonesia* (the Indonesian language), respectively in the said countries (Kassin, 2000; Musa, Kadir, Azman, & Abdullah, 2011).

As stated, at present the official and national language in Malaysia is the Malay language, which is also known as *Bahasa Melayu* (Idris & Rosniah, 2013; Phoon, Abdullah, Lee, & Murugaiah, 2014). The status of the Malay language as the official and national language of Malaysia was enforced in 1967 for Peninsular Malaysia. In 1963, Sabah and Sarawak, on the island of Borneo, joined the Federation of Malaysia (Yeow, 2000) and the Malay language was made the official language there in Sabah and Sarawak (Salleh, 1993). Idris (1999) adds that the Malay language unites the people from Peninsular Malaysia and Borneo.

3.5 Malay Orthography

DeFrance (1989) and Mountford (1990) categorise writing scripts into three main types: alphabetic, syllabic and logographic. These differentiate the mapping between orthography, phonology and semantics in languages. In Malaysia, school students are taught using the Standard Malay alphabetic writing script (Lee, Low, & Mohamed, 2013). The dominant form of the present orthography is based on Romanised or *Rumi*, a Latin alphabetic script which is the standard form for education (Lee, Liow, & Wee, 1999), and almost all printed materials (Faizal, 2009). In addition, there are also the *Jawi* scripts, an adapted Arabic script that is primarily used in Islamic education (Yahaya, 2016). Thus far in alphabetical script writing, the depth of orthographic structure can be divided into shallow or transparent (i.e., direct relationship between spelling and pronunciation), or deep or opaque (i.e., indirect relationship between spelling and pronunciation) (Helms-Park et al., 2015).

Malay is an alphabetic language with a shallow orthography and simple syllabic structure (Lee, Low, & Mohamed, 2013). In shallow orthographies (such as Finnish, Serbo-Croatian, Spanish, Dutch, German and Italian), there is an isomorphic relationship between spelling and sound; the mappings between orthography and phonology are transparent and predictable (Yap, Liow, Jalil, & Fiazal, 2010). The Malay language has several similarities to English including the same Latin alphabetic script (Lee, 2008), subject-verb-object (SVO) grammatical structure (Onwi, 2014; Young, 2001) and 26 letters in its alphabet (Khoo, 2017).

There are three categories of sounds representing the Malay language: vowels, consonants and diphthongs (Sariyan, 2004). There are five vowel letters representing six vowel sounds (Clynes & Deterding, 2011; Fang, 2008; Sariyan, 2004; Yap et al., 2010; Yunus, 1980). The letter 'e' in Malay has two different pronunciations (Fiazal, 2009; Lee, 2008; Liow, 1999) symbolising the vowel sounds /ə/ and /e/ (Sariyan, 2004; Fiazal, 2009; Lee, 2008; Nair, 2013; Yap et al., 2010). The three diphthongs in Malay each correspond to one phoneme: /ai/, /au/ or /oi/ (Fang, 2008; Sariyan, 2004). According to Lee (2008), the consonant letters and sounds of the language correspond to almost perfect one-to-one. There are five digraphs in Malay and each corresponds to one phoneme: /gh/, /kh/, /ng/, /ny/ and /sy/ (Sariyan, 2004; Yap et al., 2010).

The initial stage of teaching the Malay language is through the sound of the language by *bercerita* [storytelling], *pantun* [poem] and *lagu* [songs], followed by writing the alphabetic script (Gomez & Reason, 2002). In addition, other approaches such as using sound in the classroom environment can be used to teach Malay. The next stage involves teaching to articulate the consonant sound together with the vowel sound (e.g., /b/ + /a/, /b/ + /i/) to form a syllable (e.g., /ba/, /bi/) and finally to combine syllables to form a word (e.g., /ba/ + /ca/ = *baca* [read]) (Fern & Jiar, 2014; Gomez & Reason, 2002; Lee & Wheldall, 2010; Liow & Lee, 2004; Winskel & Widjaja, 2007).

3.5.1 The Orthography Depth and Syllabic Structure of the Malay Language

In order to understand the syllabic complexity and orthography depth, Seymour, Aro and Erskine (2003) compared orthographies of English and 12 other European languages in terms of reading acquisition. Their findings indicated that the syllabic complexity and orthography depth are accountable for the essential linguistic knowledge among young learners, where the former affects decoding, and the latter affects word and non-word reading. The authors found that the rate of reading development was mainly influenced by the orthography depth. This suggested that learners with shallow orthographic backgrounds (e.g., Finnish, Spanish, Italian)

had an advantage in reading development compared to their counterparts with deeper orthographies (e.g., French, Danish, English).

Moreover, Seymour et al. (2003) suggested that some European languages (Finnish, Greek, Italian, Spanish, German) are comprised of comparatively shallow orthographies, whereas, others (Portuguese, French, Danish, English) comprise of deeper orthographies, as the mappings between the graphemes and phonemes are inconsistent. Table 3.1 illustrates the hypothetical classification of participating languages relative to the dimensions of syllabic complexity (simple, complex) and orthographic depth (shallow to deep).

Table 3.1. Hypothetical classification of participating languages relative to the dimensions of syllabic complexity (simple, complex) and orthographic depth (shallow to deep).

		Orthographic depth			
		Shallow		Deep	
Syllabic structure	Simple	Finnish	Greek Italian Spanish	Portuguese	French
	Complex		German Norwegian Icelandic	Dutch Swedish	Danish English

Adapted from Seymour, Aro and Erskine (2003)

In Table 3.1, the first dimension refers to syllabic structure of two language groups: the Romance and Germanic languages. The Romance languages consist of open CV syllables (i.e., C stands for consonant and V stands for vowel) with a small number of initial or final consonant clusters (e.g., Italian, Spanish, French) and the latter consist of many closed CVC syllables and complex consonant clusters in both onset and coda position (e.g., German, Danish, English).

The orthographic depth dimension refers to regular to irregular alphabetic writing systems. Languages with regular alphabetic writing systems have consistent mappings of graphemes and phonemes (e.g., Finnish). These can be contrasted with languages with irregular systems with variation in the relationships between graphemes and phonemes, including multi-letter graphemes, context-dependent rules, irregularities and morphological influences (e.g., French, Danish, English). The categorisation of orthographies, either deep/opaque, shallow/transparent or simple/complex, is determined by the prediction of the phonology of a word from the orthography and/or its syllabic structure.

Based on the twin dimensions developed by Seymour et al. (2003), Faizal (2009) adapted the dimension by adding other languages, which included the Malay orthography to present the syllabic complexity and orthographic depth as illustrated in Table 3.2. The syllabic structure dimension modified by Faizal (2009) gives readers a clearer picture of the disparity between the Malay and English orthographies even though this grouping of languages by Faizal (2009) is only for referencing.

Table 3.2. Hypothetical classification of languages based on orthographic depth and syllabic structure.

		Orthographic depth				
		Shallow			Deep	
Syllabic structure	Simple	Turkish Malay Hebrew & Persian (voweled)	Finnish	Greek Italian Spanish	French	Hebrew & Persian (unvoweled)
	Complex			Serbo-Croatian German	Dutch	English

Adapted from Faizal (2009)

As can be seen in Table 3.2, Malay is similar to Turkish and Finnish with simple syllabic structure and shallow orthographic depth compared with other European languages as mentioned previously. Lee et al. (2013) claimed that the grapheme-to-phoneme correspondence in Malay is more direct in contrast to English. For example, the Malay word *malam* [night] consists of five graphemes (e.g., ‘m’ + ‘a’ + ‘l’ + ‘a’ + ‘m’) and five phonemes (e.g., /m/ + /a/ + /l/ + /a/ + /m/). Meanwhile, the English word [night] has five letters (e.g., ‘n’ + ‘i’ + ‘g’ + ‘h’ + ‘t’) but only three phonemes (e.g., /n/ + /aɪ/ + /t/). As reported for shallow orthographies, the influence of lexical variables is notable in the Malay language that makes it easier to read and spell (Faizal, 2009). Duncan et al. (2013) posit that in shallow orthographies, reading and writing proficiency are achievable by learning the basic grapheme-to-phoneme rules, but not in languages with deep orthographies such as English. The irregularity in English is likely to make those who speak the Malay language as their L1 mispronounce or misspell words/sounds in English (Shak, Lee, & Stephen, 2016).

The rationale to present the two dimensions is to show the orthographical complexity among the languages across dimensions. Tables 3.1 and 3.2 illustrate the dimensions of orthographic

depth and syllabic structure and aim to give the reader a better understanding of the Malay orthography compared to English. The following paragraph discusses the phonological structure of the Malay language where the regularity between graphemes and phonemes and word formations are based on the Standard Malay language used in the Malaysian education system.

3.6 Sound Structure in the Malay Language

The following paragraphs explain the SM writing and sound system using the International Phonetic Alphabet (IPA) symbols to describe pronunciation. The SM language is composed of 18 primary and six secondary consonants (including the glottal stop), six vowels and three diphthongs that represent 33 phonemes.

3.6.1 Standard Malay Vowels

In the Malay language, there are five vowel letters: /a/, /i/, /e/, /u/, /o/. These vowel letters are related to six vowel sounds: ‘a’, ‘i’, ‘e’, ‘ə’, ‘u’, ‘o’. The vowel /e/ is related to two phonological forms, /e/ and /ə/, as in *enak* /enak/ [delicious] and *emas* /əmas/ [gold]. It is also in a few homographs, for instance *perang* which can be pronounced /peran/ [blond] or /pəran/ [war]; and *beri* which can be pronounced /beri/ [berry] or /bəri/ [give]. As such, Clynes and Deterding (2011) and Fern and Jiar (2013) argue that in certain positions, the articulation of a word is unpredictable. Table 3.3 outlines the six vowel phonemes in SM according to the IPA symbols.

Table 3.3. Standard Malay vowels in the quadrilateral.

	Front	Centre	Back
Close	i		u
Close-mid	e	ə	o
Open		a	

Adapted from Clynes and Deterding (2011)

Some words illustrating the occurrence of these six vowel letters are:

Phoneme	Word	Transcription	English translation
/a/	<i>marah</i>	/marah/*	[angry]
/e/	<i>petak</i>	/peʔaʔ/	[plot]
/ə/	<i>kena</i>	/kəna/ or /kenə/	[hit]
/i/	<i>bilik</i>	/biliʔ/	[room]
/o/	<i>orang</i>	/oraŋ/	[person]
/u/	<i>buluh</i>	/buluh/	[bamboo]

Note. *The final /h/ is not always realised; instead the vowel may have a breathy quality.

In addition to the above description in terms of the Standard Malay vowels, there are two accepted spoken standards based on word-final /a/ and /ə/ realisations. For example, the word *baca* [read] is produced as /batʃə/ mainly in the central, southern, and east coast regions of Peninsular Malaysia. However, in the northern states of Penang, Kedah, Perlis and in Sabah and Sarawak in Eastern Malaysia, the word *baca* [read] is produced as /batʃa/ (see Asmah, 1977).

3.6.2 Standard Malay Diphthongs

Teoh's (1988) studies in Malay phonology suggest that SM consists of three phonemic diphthongs: /ai/ (e.g., *cukai* [tax]), /au/ (e.g., *pulau* [island]) and /oi/ (e.g., *baloi* [worthy]). He documents that these three diphthongs are only present in disyllabic or trisyllabic morphemes, and in morpheme-final morphemes. However, Asmah (1985), Ahmad (1993), Clynes and Deterding (2011) and Deterding and Ishamina (2017) point out that these diphthongs are actually a monophthong followed by an approximant: /ai/ represents /aj/ (e.g., /tʃukaj/ [tax]), /au/ represents /aw/ (e.g., *pulaw* [island]), and /oi/ represents /oj/ (e.g., *baloj* [worthy]). On the notion of the latter analysis, there are no phonological diphthongs in the SM language (see Clynes, 1997) because diphthongs in the Malay language are a phonological issue.

3.6.3 The Standard Malay Consonants

In SM, there are 24 consonants in total and 18 consonants /p, b, t, d, k, g, s, h, ʃ, dʒ, m, n, ɲ, ŋ, l, r, j, w/ that are native to the Malay language. In relation to the Malay consonants, the symbol /ʃ/ is represented by the letter /c/, (e.g., *chawan* /ʃawan/ [cup]), /dʒ/ is represented by the letter

/j/, (e.g., *jalan* /dʒalan/ [walk]) and /j/ is represented by the letter /y/, (e.g., *ya* /ja/ or /jə/ [yes]). In a variation of the Malay language spoken in Malaysia (see Maris, 1980; Zahid & Mahmood, 2016), the consonant /t/ is dental /t̪/, rather than alveolar /t/. The other six consonants /f, v, z, ʃ, x, ʔ/ are borrowed, principally from Arabic and English. The glottal stop /ʔ/ is still debated among linguists because some argue that it is native to the language, while others believe it is from Arabic (Asmah, 2008; Hashim & Lodge, 1988).

The language consists of five digraphs /gh, kh, ng, ny, sy/ in which two consonants are presented next to each other and represent a sound in a word. The digraph /gh/ which is represented by the symbol /x/ in the IPA table only appears in borrowed Arabic words (e.g., *ghaib* [disappear] and *khidmat* [service]). However, the symbol /ɣ/, which is common in Arabic, is not presented in the consonant inventory because it is replaced by the symbol /r/ due to the absence of laryngeal and pharyngeal sounds in the Malay language (Hassan, 1981; Othman, 2003). The other three digraphs are represented by the symbols /ng/-/ŋ/, /ny/-/ɲ/ and /sy/-/ʃ/. Table 3.4 shows the IPA symbols for SM consonants and the non-native consonants that only occur in borrowed words that are presented in parentheses.

Table 3.4. The Standard Malay consonants.

Mode of articulation	Place of articulation						
	Labial	Alveolar	Post-alveolar	Palatal	Velar	Glottal	Labial-velar
Plosive/affricate	p b	t d	tʃ dʒ		k g	(ʔ)	
Fricative	(f) (v)	s (z)	(ʃ)		(x)	h	
Nasal	m	n	ɲ		ŋ		
Trill		r					
Approximant				j			w
Lateral		l					

Adapted from Clynes and Deterding (2011)

The native consonants are illustrated by the following:

Phoneme	Word	Transcription	English translation
/p/	<i>parang</i>	/paraŋ/	[machete]
/b/	<i>barang</i>	/baraŋ/	[goods]
/t/	<i>tua</i>	/tua/	[old]
/d/	<i>dua</i>	/dua/	[two]
/k/	<i>kaji</i>	/kadʒi/	[examine]
/g/	<i>gaji</i>	/gadʒi/	[salary]
/tʃ/	<i>cari</i>	/tʃari/	[search]
/dʒ/	<i>jari</i>	/dʒari/	[finger]
/r/	<i>rumah</i>	/rumah/	[house]
/m/	<i>masih</i>	/masih/	[still]
/n/	<i>nasi</i>	nasi	[rice]
/ŋ/	<i>nyanyian</i>	/ŋaŋian/	[singing]
/ŋ/	<i>ngeri</i>	/ŋəri/	[horror]
/s/	<i>sari</i>	/sari/	[essence]
/h/	<i>hari</i>	/hari/	[day]
/j/	<i>bayang</i>	/bajaŋ/	[shadow]
/w/	<i>bawang</i>	/bawaŋ/	[onion]
/l/	<i>laki</i>	/laki/	[male]

The borrowed consonants are illustrated by the following:

Phoneme	Word	Transcription	English translation
/f/	<i>fikir</i>	/fikir/	[think]
/v/	vitamin	/vitamin/	[vitamin]
/z/	zaman	/zaman/	[era]
/ʃ/	syak	/ʃak/	[suspect]
/x/	khas	/xas/	[special]
/ʔ/	saat	/saʔat/	[second]

The consonant sounds in the Malay language may be similar to English; however, there are certain exceptional cases that should be given attention. Teoh (1994) indicates that /r/ is clearly articulated as a final letter in a penultimate syllable (e.g., *kertas* [paper]) and before a vowel (e.g., *pasaran* /pasaran/ [market]). However it is observed that if /r/ falls in a final syllable, it is unheard (e.g., *lapar* /lapa:/ [hungry]) and also in the use of the prefix *ber* when it is before a consonant (e.g., *bermain* /be:main/ [playing]).

Othman (2003) highlights that the consonant [h] is silent or faint when it falls in the initial (e.g., *hulu* /:ulu/ [interior]) or final syllable (e.g., *lebah* /leba:/ [bee]), but clearly articulated if [h] is in the middle of two vowels (e.g., *pahat* /pahat/ [chisel] and *bahu* /bahu/ [shoulder]). He also points out that when the consonant /k/ is the final syllable it is replaced by the /ʔ/ glottal stop (e.g., *budak* /budaʔ/ [child]), but when /k/ is the initial syllable it is pronounced (e.g., *kelas* /kelas/ [class]).

3.7 Syllable Structure of the Malay Language

In general, syllable structure can be divided into two categories: open and closed. The syllable structure of the Malay language lies in the characteristics of the language (Adawiyah, 2017; Lee & Wheldall, 2010; Yap et al., 2010), which have clear syllable boundaries (Poh, 2017; Winskel & Widjaja, 2007). This is because Austronesian languages typically contain disyllabic words (Clark, 2009). Malay is a disyllabic language with a four-syllable structure: V, VC, CV and CVC (Gomez & Reason, 2002; Hamdan, 1988; Lee, 2008), with V and CV as open syllable

structures and VC and CVC as closed syllable structures (Fern & Jiar, 2013). These four basic forms (i.e., V, VC, CV and CVC) can be integrated in a number of ways to form two syllabic or more complex word forms (Karim, Onn, Haji Musa, & Mahmood, 2008; Lee et al., 2013; Zaharani, 2009). For instance, the Malay word *bola* [ball] has a two-syllabic word structure, CV + CV, whereas more complex words such as *mesyuarat* [meeting] have the form CV + CV + V + CVC.

Moreover, Gomez and Reason (2002) indicate that seven new syllable structures were introduced in Malay based on English loanwords: CVCC as in *teks* [text], VCC as in *abstrak* [abstract], CCVC as in *prinsip* [principle], CCV as in *glukos* [glucose], CCVCC as in *plastik* [plastic], CCCV as in *strategi* [strategy] and CCCVC as in *struktur* [structure]. There are also a few mono-syllabic words found in the Malay language. These are mostly functional (e.g., *di* [at] and *ke* [to]) or loanwords (e.g., *kad* [card] and *beg* [bag]) (Lee et al., 2012).

In addition, Azmi et al. (2016) point out that English loanwords in the Malay language are divided into two categories. The first category is where the original spelling from the English word is retained; for example, the word *atom* in the Malay language is spelt and pronounced as the word [atom] in English. The second category is where the changes in the spelling are noted but pronounced as the English word; for example, the word [carbon] in English is spelt as *karbon* in the Malay spelling but the pronunciation remains the same. This resemblance is mainly influenced by English orthographic structure; for instance, the word [psychology] is spelt as *psikologi* not *saikologi* (Chiew, 1999). Table 3.5 illustrates the basic and new syllable structures in the Standard Malay language.

Table 3.5. Basic and new syllable structures.

Syllable structure	Orthographical transcription	Meaning in English
V	ibu	mother
VC	ambil	take
CV	bapa	father
CVC	bantu	assisting
CVCC	kartrij	cartridge
VCC	aktif	active
CCVC	praktik	practise
CCV	privasi	privacy
CCVCC	drastik	drastic
CCCV	skru	screw
CCVCV	menstratakan	stratum

The Malay language does not have consonant clusters in initial and final position syllables. Consonant clusters are only found in the middle position and letter sequences are not found in the Malay language (Gomez & Reason, 2002; Yap et al., 2010). However, when the vowel ‘a’ and ‘i’ or ‘a’ and ‘u’ are together as a closed syllable they are pronounced with a syllable boundary among them, for example *lain* [other] and *laut* [sea] are both two-syllabic words, (Lee et al., 1999). Additionally, with the influence of English in Malay vocabulary, the following letter-strings are accepted in English loanwords: /aa/, /ea/, /eo/, /ie/, /io/, /ue/, and /uo/ (Gomez & Reason, 2002).

3.8 Malay Morphology

The Malay language has little inflectional morphology, but is rich with derivation affixes that are generally polysyllabic in nature (Gomez & Reason, 2002). Such polysyllabic or multisyllabic words are regular since the Malay language is agglutinative in nature, (Nik Safiah, Farid, Hashim, & Abdul Hamid, 2004, Yap et al., 2010, Lee et al., 2013; Winskel & Salehuddin, 2014) and they are used regularly to express the relationship of grammar and new word formations (Faizal, 2009). Therefore, the boundaries of a Malay word can be noticeably defined by separating it into discrete morphemes (Knowleds & Mohd Don, 2006).

In addition, derivational morphology also makes use of reduplication, which is the only non-concatenative feature in the language for which morpheme boundaries are difficult to handle (Beesley & Karttunen, 2003; Onwi, 2013; Sharum, Hamzah, Wahab, & Ismail, 2010). Table

3.6 represents the seven most typical word-formation processes in Malay: affixation, reduplication, compounding, blending, clipping, acronyms, and borrowing. In the Malay language, three formations (i.e., affixation, reduplication and compounding) are mainly used in terms of grammar and in forming new words (see Karim et al., 2008 for detail). In this study, the morphology awareness measures were developed based on these three formations (i.e., affixation, compounding and borrowing).

Table 3.6. Seven types of word-formation in Malay.

Word formation	Example
Affixation	Berperikemansiaan (prefix <i>ber-....-an</i>) [humane]
Reduplication	<i>Ramai-ramai</i> [a group of people]
Compounding	<i>Peri + kemanusiaan = perikemansiaan</i> [humanity]
Blending	<i>Cerita + pendek = cerpen</i> [short story]
Clipping	<i>Mak = Emak</i> [mother]
Acronyms	<i>Berita Nasional Malaysia = BERNAMA</i> [name of a news channel]
Borrowing	Borrowed from Arabic such as <i>syukur</i> meaning [thankful]

Adapted from Ranaivo-Malançon (2004)

As stated, the Malay language is known as an agglutinative language because new words are formed by adding inflectional morphemes such as prefixes, suffixes, infixes and circumfixes to the root words (Knowleds & Mohd Don, 2006; Lee et al., 2013; Ranaivo-Malançon, 2004). In the Malay language there are four basic types of derivational affixes; there are nine prefixes (e.g., *ber...* as in *bermain* [playing] from the root word *main* [play]); three suffixes (e.g., *...an* as in *makanan* [food] from the root word *makan* [eat]); 13 circumfixes (e.g., *ke...an* as in *kesihatan* [health] from the root word *sihat* [healthy]); and four infixes (e.g., *...er...* as in *rerambut* [capillary] from the root word *rambut* [hair]). These derivational affixes are commonly used in both the spoken and written language (Lee et al., 1999), and they bring new meaning to the root word (Azmi et al., 2016). For example, the verb *minum* [drink], when added to the suffix *-an*, becomes *minuman* [beverages].

There are two uses of the copula verb in the Malay language: *ialah* and *adalah* [is] (Nik Safiah et al., 2004). These two copulas are irrelevant and predetermined in the language (Abidin, Ismayatim, & Yee, 2016). The use of the copula verb is predominantly optional and does not correspond to either tense or aspect. However, it corresponds with the predicate of the primary clause (Eng, 2012) and one copula verb is applicable to a number of forms (Maros et al., 2007).

Although the use of tense in the Malay language is not mandatory, with the influence of English there has been a rise in the use of copula verbs (Gomez & Reason, 2002) by adding words to indicate when an action occurred without changing the original verb (Azmi et al., 2016). For example, the use of adverbs of aspects in a sentence indicates tense in the Malay language (e.g., *sudah* [already], *sebelum* [before] and *semasa* [while]). Therefore, in order to indicate an action happening in the present or future tense in the Malay language, the temporal adverbs *sekarang* [now] and *akan* [will] are used. These temporal adverbs can be placed either before or after the verb (Young, 2001).

In addition, Azmi et al. (2016) also point out that there is no use of pronouns (he or she) to differentiate male and female in the Malay language. However, there are other pronouns used in the Malay language (e.g., *saya* [I], *engkau* [you], *kamu* [you all], *kami* [we], *kita* [we – inclusive of third person], *dia* [either he or she] and *mereka* [they]). Besides that, the term *banyak* [many] is used to indicate the plural form of a noun, for example, *banyak burung* [many birds] (Azmi et al., 2016). Meanwhile, the use of determiners does not occur in the Malay language, but a number of Malay linguists agree upon the use of *ini* [this] and *itu* [that] being placed after a noun phrase (Hassan, 1993;1996), which plays the role of the determiner [the], but this is generally not compulsory (Young, 2001).

3.9 Stress Pattern

In terms of word stress, linguists believe that in the Malay language the stress pattern falls in the final and penultimate syllables depending on the regional variation of a word (Amran, 1984; Van Zanten, Goedemans, & Pacilly, 2003; Zuraidah, Knowles, & Yong, 2008). Nonetheless, the word stress level in the Malay language is still an ongoing debate because of disagreement among linguists as to whether the stress is unpredictable (Phoon, 2010) and others suggesting that there is no basic stress in the language (Clynes & Deterding, 2011; Zuraidah et al., 2008).

3.10 Malaysian Education System

In Malaysia, the MoE oversees education throughout Peninsular Malaysia and Sabah and Sarawak in East Malaysia; although each state and federal region has its own education department to coordinate academic and logistical matters. The *Education Act* of 1996, which repealed the *Education Act* of 1961, is the main legislation that covers all levels of education under the national education system except in international and private schools.

The use of a National Curriculum (NC) is stated in Section 18 of the Act, and specifies that it should be used by all schools in the national education system. The NC has implemented a common curriculum across Malaysian public schools where English is taught as a core subject in both primary and secondary schools. Primary school education can be categorised based on mediums of instruction: (1) Malay medium in national schools and (2) non-Malay medium in national-type schools, also known as vernacular schools. The mediums of instruction in the latter are Mandarin (Chinese) and Tamil. Primary school education in Malaysia is divided into two levels: Level 1 for Standards 1 to 3, and Level 2 for Standards 4 to 6. Even though the medium of instruction can be different in primary schools, Malay and English are both compulsory subjects. Regardless of the medium of instruction, all national and national-type schools use the same syllabus structure, which is prescribed in the NC, and it is mandatory for all primary students to take the Primary School Achievement Test, known as the *Ujian Pencapaian Sekolah Rendah* (UPSR), before continuing to secondary education.

All national secondary schools use Malay as a medium of instruction to deliver the syllabus structure as prescribed in the NC. Similar to primary school education, English is a compulsory subject in all secondary schools in Malaysia. Students go through five years of secondary education where they spend three years in lower secondary, known as Forms 1 to 3, and two years in upper secondary, known as Forms 4 and 5.

Nonetheless, students from national-type primary schools (i.e., Mandarin and Tamil-medium education) who fail to obtain the minimum requirement (a C grade) in the national language for UPSR, go through a transition programme known as 'Remove Class' that lasts for one year. This programme prepares the students with sufficient proficiency in the national language (Malay) to cope with this medium of instruction and interaction the following year. Students from national-type primary schools who have attained the minimum score in the national language get direct admission to Form 1.

At the end of Form 3, students sit for their Lower Secondary Evaluation, known as *Pentaksiran Tingkatan Tiga* (PT3). The results of this determine which stream they will be placed in at the upper secondary level. There are three options: (1) an academic stream, which can be science, commerce or arts, (2) a technical and vocational stream, or (3) a religious stream. In order to cater to their respective needs in education, there are specific schools for each stream.

Students spend two years completing their upper secondary level where they are required to take the Malaysian Certificate of Education known as the *Sijil Pelajaran Malaysia* (SPM).

SPM is an O-Level equivalent and is the second-to-last public examination before they embark on their tertiary education in public or private universities in Malaysia or abroad. Upon graduating from their SPM, students from public schools have the option of continuing their Form 6 when they are required to take the Malaysian Higher Secondary Certificate Examination known as the *Sijil Tinggi Persekolahan Malaysia* (STPM) which is equivalent to A-levels or matriculation (pre-university).

The difference between STPM and the Matriculation programme is that those who are taking STPM will be tested based on an 18-month syllabus divided into three semesters, whereas, the matriculation students are offered a one or two-year programme with two semesters in a year. Unlike the matriculation programme, which is only valid for local universities, the STPM programme is internationally recognised and is applicable to local and private universities for application into bachelor's programmes.

3.11 Role of English in Malaysia

Malaysia achieved independence from the British in 1957. Following this, English was used as the official language in administration, education, diplomacy and commerce for 10 years (Chang, 2011; Kaur, 2009). The conversion from English to Malay began in 1965, when the curriculum and teaching materials were changed from English to the Malay language (Hanewald, 2016). In 1971, the English medium school system underwent a major change when Malay was adopted as the medium of instruction, with English made a compulsory subject in national schools at primary and secondary level, and national-type schools at primary level (Asmah, 2012; Hanewald, 2016; Lee, 2011; Zuraidah, 2014).

The Malay language replaced English and became the national and sole official language of Malaysia with the passing of the *1961 Educational Policy* and the *1967 National Language Act* (Asmah, 1992). The implementation of the Malay language in schools was carried out in stages. By 1976, English was no longer the medium of instruction in primary schools, and this was extended to secondary schools by 1982 (Asmah, 2016). Nevertheless, English remained a compulsory L2 taught in primary and secondary schools (Darmin & Albion, 2013; Stephen, 2011). In terms of tertiary education, there was a slow shift from English to Malay medium instruction after 1976, although English was not fully replaced, particularly in science and law faculties in local universities (Asmah, 2016). The *Private Higher Education Act* of 1996, however, allowed privately owned academic institutions to use English as the medium of

instruction (Gill, 2002; Hanewald, 2016; Puteh, 2010). The role and status of English over the years has been subject to change in the national education system (Nair, 2013).

In 2003, the Teaching and Learning of Science and Mathematics in English policy (*Pengajaran dan Pembelajaran Sains dan Matematik dalam Bahasa Inggeris*, PPSMI), was introduced by the government. This government policy aimed to improve the command of English among primary and secondary school students. The rationale of this policy was to reduce the decline in English language mastery among Malaysian students (Asmah, 2016). Moreover, it was also predicted that teaching science and mathematics in English would improve their command of English (Foo & Richards, 2004; Hanewald, 2016). In accordance with the policy, science and mathematics were taught in English, replacing Malay as the medium of instruction in these subjects in primary and secondary national schools, and replacing Mandarin and Tamil in the national-type primary schools (Azlina, Kaur, Aspalila, & Rosna, 2005; Gill, 2005).

This policy, however, became a subject of debate among academics, politicians and the public leading to the MoE to revert the policy in 2012 (Zaaba, Ramadan, Anning, Gunggut, & Umemoto, 2011). One of the main reasons for the PPSMI abolishment was due to the wide disparity in achievement between rural and urban schools (Lan & Tan, 2008; Yahaya et al., 2009). A number of academics and linguists in Malaysia believed that students were able to grasp the learning of science and mathematics better in the Malay language than in English (Ishak & Mohamed, 2012). Thus, a new education policy was introduced by the MoE in 2012: To Uphold Bahasa Malaysia and To Strengthen the English Language (*Memartabatkan Bahasa Malaysia Memperkukuh Bahasa Inggeris*, MBMMBI), replacing the PPSMI. One of the aims of introducing MBMMBI was to enable Malaysians who were well-versed in both Malay and English. With the implementation of MBMMBI, the Malay language became the medium of instruction in teaching science and mathematics in primary and secondary schools. The government, nonetheless, had not neglected the efforts taken towards the advancement of the standard of English proficiency among students, as English is the second language in Malaysia.

In 2013, the new National Education Transformation Plan, called the *Malaysian National Education Blueprint 2013–2025* (MNEB), was introduced by the government. It encompasses education matters from preschool to post-secondary level and focuses on various aspects of evaluation and assessment of performance in the Malaysian education system. This had been done in order to develop a new National Education Blueprint, raising the standards of education and preparing young Malaysians for the needs of the 21st century. There are six major areas

under the MNEB, with one being bilingualism among students and the increase of teaching hours especially for English in schools (Darus & Subramaniam, 2009). Additionally, vernacular schools were to be equipped with extra contact hours for the Malay language. It is also mentioned in the MNEB that by 2016, all students taking the SPM must achieve at least a pass in English in order to obtain a full SPM certificate. Therefore, in order to keep abreast with the rest of the world, the role of English is important and this can be achieved through education (Asmah, 2016). This is because to gain a world-class education, and to achieve international standards, one must have the knowledge and understanding of the English language (Asmah, 2016).

3.12 English in Tertiary Education

In 1993, the Cabinet decided that science and information technology (e.g., medicine, engineering and computer science) faculties in public universities were required to teach in English, and that all public universities in Malaysia should make English a required subject in their curricula (Asmah, 2016). However, there is no common syllabus for teaching English at the tertiary level, unlike at primary and secondary levels, where there is a common syllabus across the board. Public universities offer their own prerequisite English courses which students are required to take during their course of study. Some of these English language courses are compulsory for students to pass in order for them to graduate from their tertiary education (Rethinasamy & Chuah, 2011).

Universities in Malaysia, regardless of whether public or private, have their own entry requirements for English proficiency tests, the result of which determines students' entry to English language courses (Elder & O'Loughlin, 2003). Students who fail to meet the benchmark set by universities are required to enrol for English remedial courses (Tsai & Tsou, 2009). These remedial courses offer essential language skills to assist students to do well in their choice of discipline at the tertiary level (Ainol, 2001).

The MoE introduced the MUET in 1999 to determine students' proficiency; this was fully implemented in 2000. Prior to this, all universities relied on students' SPM English language grade to determine their language proficiency (Rethinasamy & Chuah, 2011). The MUET is one of the measures (Ambigapathy, 2001) introduced by the MoE to address the declining standard of English among students embarking on their tertiary education (Othman & Nordin, 2013) in public universities. As mentioned previously, at tertiary level, English is extensively used as the medium of instruction in Malaysian public universities (Gill, 2005), and in order

for students to perform at the university level, there is a need to determine their proficiency level before they enter tertiary education (Rethinasamy & Chuah, 2011). Therefore, public universities have their own targeted MUET scores for different courses offered at undergraduate level.

The MUET has become a compulsory prerequisite for admission into local universities in Malaysia (Lee, 2004), and it is the guiding principle that has been centralised across all public universities in Malaysia (Rethinasamy & Chuah, 2011). A benchmark study conducted by the MEC in 2005, disclosed that the MUET and International English Language Testing System (IELTS) showed a positive significant correlation (i.e., $r=0.662$) between MUET and IELTS, suggesting that MUET is a reliable test to measure students' English language proficiency. However, this argument can be questionable since there has not been any further research on the validity of MUET or its interpretation by users (Rethinasamy & Chuah, 2011).

There are four components tested in MUET: listening, speaking, reading and writing, where reading carries the highest marks, followed by writing, and similar marks are allocated for listening and speaking. The scores are in a six-band scale that range from 0–300 (Othman & Rashid, 2011), with Band 1 indicating very low proficiency and Band 6 indicating effective mastery of English for academic purposes (refer to Appendix P). The MEC administers the MUET examination to measure students' English proficiency before moving into tertiary education (Isaacs, 2010; Rethinasamy & Chuah, 2011), and to bridge the level of English proficiency between secondary and university education (Chan & Wong, 2004; Lee, 2013). Therefore, the general syllabus used in the MUET has resolved some of the discrepancy in English placement testing of tertiary education (Foo, 2007).

3.13 The Implementation of Malay and English Language in Malaysian Schools

In 2017, the Curriculum Development Division (CDD), allocated four hours per week of formal teaching for Malay language, and three and a half hours per week of formal teaching for ESL for lower and upper secondary school students. As outlined by the CDD, students are taught aspects of orthography (e.g., spelling), morphology (e.g., word formation), and phonology (e.g., pronunciation), including how to construct and identify sentences and vocabulary in the Malay language. Moreover, students are taught how to identify and apply these features accordingly when using the language.

In contrast, the English language syllabus is structured in such a way that encourages or expects the student to use the language on a daily basis. Nonetheless, the four main language skills (i.e., listening, speaking, reading and writing) have not been taught as separate skills, but rather have been incorporated into the areas of language use. Similarly, grammatical rules and exceptions are integrated into the context of topics and are not taught as separate skills.

Although the curriculum indicates that students should be taught the phonological features of English, most students are disadvantaged when it comes to knowing and consciously learning English pronunciation (Jayapalan & Pillai, 2011; Shah, Othman, & Senom, 2017; Shak, Lee, & Stephen, 2016; Yong, Tan, & Yong, 2012). This is because teachers are not trained to be proficient in English pronunciation skills (Nair, Krishnasamy, & De Mello, 2006), which leads to difficulties in teaching key features of English pronunciation to their students (Gilakjani, 2012; Pillai, 2017; Rajadurai, 2006; 2007).

3.14 Malaysian English Pronunciation

In practice, both primary and secondary public schools in Malaysia use Standard English in their teaching, which is normally associated with standard British English (see Baskaran, 1987). Normal practice when using Standard English has the potential to influence writing, particularly in terms of associating pronunciation with spelling; although, the potential influences on pronunciation have not been resolved (Pillai & Ong, 2018). Researchers studying English language speakers in Malaysia have highlighted that spoken English in Malaysia has distinct features, which can influence the acrolectal spoken variety (e.g., Phoon & Maclagan, 2009; Pillai, Mohd Don, Knowles, & Tang, 2010). Acrolectal refers to a “[high level of] social dialect used for official and educational purposes” (Preshous, 2001, p. 47). Linguists in Malaysia have reported that characteristics, such as a lack of typical vowel contrasts and the realisations of many diphthongs as monophthongs, may affect the articulation of English words (Pillai et al., 2010).

Pillai et al. (2010) reported that many English speakers in Malaysia do not contrast among distinctive English vowel pairs. For example, [bit] and [beat] are both pronounced as /bit/, and [pull] and [pool] are both likely to be pronounced /pul/. However, they further claim that these issues are not found among fluent speakers of English in Malaysia. Another example is the /ɪə/ diphthong which tends to have a /j/ insertion [hear] /'hɪjə/ and [tear] /'tɪjə/. And, in one-syllabus word, the /w/ in triphthongs, as in words such as hour, sour, and power tend to be pronounced

in such a way that they result in two-syllable words: [hour] /'awə/, [sour] /'sawə/ and [power] /'pawə/ (Pillai, 2014).

Moreover, in consonants, the obvious difference is the realisation of /th/ (Pillai & Ong, 2018). The realisation of /th/ is generally found in colloquial speech, for example, in the initial [the and there] and in the middle [brother and father] of words (Phoon & Maclagan, 2009). Meanwhile, a certain group of Malaysians tend to use the consonant /t/ of the Malay language when pronouncing English words that consist of /th/ (see Yamaguchi, 2014; Yamaguchi & Pétursson, 2012 for details). However, this difference in the realisation of /th/ is easily detachable in pronunciation compared to in written form (Pillai & Ong, 2018).

Pillai (2015) discovered that the realisation of coda /ɹ/ for words such as car and park are emerging among younger urban Malaysian speakers. However, Pillai further argues that there is no consistent in the realisation of the coda /ɹ/ found among Malaysian speakers thus far. In addition, Baskaran (1987) argues that Malay speakers tend to pronounce the English consonants /f/, /v/ and /z/ based on the closest sound in their native consonants. For example, /f/ [film] is replaced by /p/ [pilm], /v/ [very] is replaced by /b/ [beri] and /z/ [zebra] is replaced by /dz/ [dzi:br]. This is because these consonants are rarely used in the Malay language and only appear in English loanwords. This scenario is also noted in the case of borrowed words from Arabic, where only those with Arabic knowledge pronounce the sounds distinctly, and those who lack such knowledge substitute with their native consonants (Phoon, 2010). These suggest that one's ethnicity may affect the pronunciation with regard to Malaysian English (Pillai et al., 2010; Pillai, 2014), and in this case, the influence of the Malay language on English pronunciation.

3.15 Comparing Malay Language and English Language

Malay language is derived from the Austronesian (Malayo-Polynesian) family group (Bellwood, Fox, & Tryon, 1995; Fern & Jiar, 2013; Nik Safiah, 1995; Tadmor, 2009, Paauw, 2009), unlike English which belongs to the Germanic (Indo-European) family of languages (Kachru, Kachru, & Nelson, 2009). Similar to English, Malay is an alphabetical language with 26 letters and a Romanised alphabetical script. However, the Malay language has shallow orthography (Faizal, 2009) compared to English, which has an opaque orthography (Seymour et al., 2003). For example, in Malay, the letter /a/ is only articulated as /a/, unlike in English, where the letter /a/ can be articulated as /ʌ/, /ɑ:/, /e/, /ə/, /eɪ/ or /æ/ (Helms-Park et al., 2015; Shak et al., 2016; To, Tighe, & Binder, 2016).

The Malay language consists of 18 consonants native to the language and six borrowed consonants (inclusive of the glottal stop), six vowels and three diphthongs. English, on the other hand, has 24 consonants, 12 vowels and eight diphthongs (Gimson, 1989). Malay and English share the same SVO structure; however, the former has a simple structure whereas the latter has a more complex structure.

There are also differences and similarities between English and Malay in terms of syllables. The Malay language does not have initial and final consonant clusters—the only consonant clusters found in the Malay language are in borrowed words from English. Nonetheless, English has a number of initial and final consonant clusters. In total, there are 11 syllable structures in the Malay language, which includes seven new syllable structures introduced into the language from English loanwords (Gomez & Reason, 2002), whereas English has 17 syllable structures (Yavaş, 2006).

Even though the Malay language has limited inflectional forms to provide grammatical context, the language has ample derivational affixes (Gomez & Reason, 2002) which are used to change the meaning of a root word (Azmi et al., 2016). The Malay language has seven types of word-formation: affixation, reduplication, compounding, blending, clipping, acronyms, and borrowing. Malay affixation is commonly used, and serves as a semantic function that is determined by the word class (e.g., noun, adjective or verb) of the root word. However, in sharp contrast to English, the Malay language makes the word lengthy and this causes difficulties in syllable segmenting in reading (decoding), and synthesising in spelling (encoding) (Fern & Jiar 2013; Miles, 2000). For example, the 18-letter, 8-syllable word *membahagi-bahagikan* [dividing into smaller sections] consists of a prefix, suffix and reduplication (Lee et al., 1999).

English is rich in both inflectional and derivational affixes that indicate grammatical forms and create new words. The affixes [im-], [dis-], [mal-] and [ir-] indicate or produce positive and negative words, for example, [agree] to [disagree] or [relevant] to [irrelevant]. In contrast to English, affixes characterise grammar and word-formation, in the Malay language, affixation, reduplication and compounding are generally used to describe grammatical rules and to form new words.

The stress pattern of the Malay language is still a debatable subject as there is no consensus among Malay linguists on the number of stresses in a word compared to English which has three levels of stress: primary, secondary and unstressed. Known as a syllable-timed language, words in the Malay language are predictable and the stress falls in the same place. In English

(a stress-timed language), stress plays an important function in the language (Gomez & Reason, 2002; Thomson, 1996) by giving an accurate stressed pattern and rhythm to the words (Solé Sabater, 1991).

As stated, the Malay language is classified as a transparent orthography with perfect letter-to-sound correspondence, for example, the Malay word *jari* [finger] consists of four letters (e.g., ‘j’ + ‘a’ + ‘r’ + ‘i’) and four phonemes (e.g., /j/ + /a/ + /r/ + /i/). However, from an educational standpoint, the Malay language is considered relatively transparent for a number of reasons: (i) the vowel /e/ is related to two phonological forms, /e/ and /ə/; (ii) six consonants /f, v, z, ʃ, x, ʒ/ are borrowed from Arabic and English, which influences the spelling or/and pronunciation of the words; and (iii) over the years the Malay vocabulary has been influenced by a number of languages (e.g., Sanskrit, Portuguese, Tamil, Arabic, English) where some of the borrowed words retained their original spellings. Therefore, the Malay language is considered to be a relatively transparent orthography rather than being a transparent orthography.

3.16 Summary

This chapter provided a general background to the Malay language, its usage and the Malaysian education system. Although Malay and English use alphabetic orthographies, they differ in various ways, which inspired this study. The Malay language belongs to the Austronesian family of languages. It uses transparent orthography with regular grapheme-phoneme correspondence. English on the other hand is derived from a Germanic language background and uses a deep orthography with complex syllable structure. The Malay language holds the status of the national and official language and English as the second language in Malaysia. As discussed in the review of literature, to date, only a few studies have explored the relationship between the Malay and English languages, especially among adult language learners’ L2 writing skill. The differences in Malay and English morphology, orthography and phonology discussed in this chapter imply the essential need to develop assessments, both in Malay and English to assess the cross-linguistic influence between and across the two languages. These limitations and contrasts pose great opportunity and need to be further investigated in regard to Malaysian students’ L2 writing skill and the cross-linguistic transfer between these two languages. Therefore, in order to achieve these aims, this study developed and adapted Malay measures based on the Standard Malay language, which is Romanised or *Rumi*. The rationale to use the Standard Malay language in this study was because it is widely used in public schools and universities, and provides a relatively clear comparison with English. The following

chapter discusses the pilot studies that took place both in Christchurch, New Zealand and Peninsular Malaysia in order to develop the Malay and English measures (12 in each language) that were administered for this study.

CHAPTER 4

Developing Malay and English Measures

4.1 Introduction

This chapter describes the development of the Malay and English measures used in the study. It includes a discussion of the initial assessment items chosen, along with the modifications made based on peer review and four pilot studies to finalise the assessments prior to the implementation of the main study. This description includes background information on the materials developed, considering the related literature in ESL and English as a Foreign Language (EFL), Malay and English orthography, and the context of adult Malay-English bilingual learners in Peninsular Malaysia. This chapter outlines the pilot studies carried out in Christchurch, New Zealand and Peninsular Malaysia, as well as the research assistants, the ethical approval and the general assessment procedures. This chapter also details the outcomes from the pilot studies, which are reported in the form of descriptive statistics.

4.2 The Development of Malay and English Measures

A battery of measures comprising 24 sub-tests was developed and adapted with the aim of predicting variations in writing skills of adult bilingual Malay-English speakers in Peninsular Malaysia. These measures were based on the upper secondary school syllabus, peer review, a series of pilot studies, a review of the relevant literature and the orthography of Malay and English language (as discussed in Chapters 1, 2 and 3). Published English measures in the ESL and EFL context served as a framework to develop the measures for the Malay language, as insufficient measures have been developed in Malay, especially for adult learners. In addition, insufficient well-established English measures suitable for adult learners were available. Therefore, the English measures assessed in this study were modified from reliable measures and made appropriate for the participants of this study who were adult bilingual learners.

The measures administered in this study were developed by taking into consideration the participants' age, appropriate language use and were based on the Malaysian upper secondary school English and Malay syllables. Regardless of the geographical location or ranking of the school, all national schools in Malaysia (i.e., primary and secondary) use the same curriculum centralised by the Malaysian MoE (as discussed in Chapter 3, 3.9 Malaysian Education System). Therefore, the Malay and English measures developed and adapted for this study adhered to the Malaysian curriculum and were applicable to the participants.

The Malay and English measures were then face validated by two upper secondary school teachers, two teacher trainers, two university lecturers and two textbook authors to ensure that the test items were appropriate for the adult language learners (i.e., aged 16 years and above) who participated in this study. The test items were reviewed and reconstructed based on their comments and suggestions. The Malay and English measures were developed to assess essay, grammar, vocabulary, morphological, orthographic and phonological skills among adult Malay-English bilingual learners.

The four pilot studies were conducted to aid in the development of the final measures. They informed the instructions, allocation of time and venue, number of items and sessions, selection of participants and research assistants, reliability and validity of the test items, instruction manual, and other technical issues before conducting the main study. These pilot studies also determined the feasibility of the test instruments, the required modifications and the consistency in obtaining the results. De Vaus (1993) argues that piloting enables the researcher to review the ambiguity and difficulty of the instrument, and the feasibility of the planned procedures (Fink & Kosekoff, 1985; Leon, Davis, & Kraemer, 2011) before implementing it in the main study.

4.3 Pilot Studies and Changes Made to the Malay and English Measures

In total, four pilot studies were carried out. Two pilot tests were conducted in Christchurch, New Zealand, and two more were conducted in Peninsular Malaysia where the main study took place. These pilot studies were conducted to determine the usefulness of the developed measures to assess the skills of the Malay-English bilingual students targeted in this study. Therefore, samples for the pilot studies were taken from students who were native speakers of Malay and began to learn ESL in school at the age of seven.

The pilot studies aimed to ensure that procedures for the measures were conducted appropriately to maximise understanding of the tasks required of the participants, that measures were not too easy or too difficult (correlational analyses are based on variability and, therefore, the measures needed to produce variability), and that timings and processes for conducting the measures could be implemented in the context in which the study was performed. Based on the data collected over the four pilot studies, measures were updated in terms of procedures (e.g., some instructions were changed and some measures were timed); outcome measures (e.g., some calculated fluency of response, rather than simple accuracy); and some measures were deleted from the study completely as they showed no evidence of variability in performance

(e.g., the Proofreading in Grammar measure and Speech Sounds in Phonological measure, both in Malay and English). The following paragraphs describe the procedures and the outcome of the pilot studies, and the latter is presented in the form of descriptive statistics (see Tables 4.4–4.7).

Participants of the first pilot study were selected from a group of Malay-English bilingual students studying at the University of Canterbury, New Zealand. These participants were first- and second-year degree students from various courses. They had gone through 11 to 12 years of learning ESL in Malaysia, similar to the participants of this study. The first pilot comprised a small group ($n=10$) of bilingual Malay-English speaking students: four males and six females, aged 18 to 20 years. Initially, 13 students participated in the study, but three withdrew from the study due to personal reasons unrelated to the study. Table 4.1 presents the Malay and English measures used in Pilot 1.

Table 4.1. Measures used in Pilot 1.

Skill	Measure	Number of items	Time allocation
Writing	Essay	N/A*	30 minutes
Grammaticality Judgement	Recognising Grammar Mistakes	10	5 minutes
	Sentence Completion	10	5 minutes
	Proofreading	10	5 minutes
Vocabulary	Vocabulary Word-Level Test	150	30 minutes
Morphological	Non-Word Task	15	10 minutes
	Word-Form Task	15	10 minutes
	Relatedness Task	25	5 minutes
Orthographic	Orthographic Choice Task	20	5 minutes
	Permissible Letter-String Task	18	5 minutes
	Orthographic Processing Task	40	5 minutes
Phonological	Syllables Counting Task	15	5 minutes
	Speech Sounds Task	15	5 minutes
	Non-Word Letter-String Task	20	5 minutes

Note. *The number of items is not applicable as the participant selected one essay topic from the three topics provided and wrote an essay based on the selected topic.

The researcher allocated four one-hour sessions, according to the participants' availability to conduct the tests individually in a classroom. The researcher recorded the time taken to execute each task for future adjustments. Participants' comments and feedback were taken into consideration for further modifications of the measures. General changes, not detailed herein,

were performed to correct typing errors and spellings mistakes following the New Zealand pilot study.

Based on the outcomes of the first pilot test, changes were made to the questions in the Malay Vocabulary Test where there was more than one correct answer. Moreover, there were too many items in the Vocabulary Test, both in Malay and English. In order to avoid fatigue and boredom among participants that could temper the findings (Schmitt & Stults, 1985), the number of items was reduced. Further changes were made to the instructions of the Malay Grammaticality Judgement Test, some of which were unclear to the participants. Finally, changes were made to those measures that presented evidence of ceiling effects. In this case, a ceiling effect was considered likely if nine out of the ten participants scored a maximum possible score for Malay or English measures. This situation occurred in a number of orthographic (Non-Word), phonological (Syllable Counting) and morphological (Relatedness Test) tasks. The main change in these cases was to impose a time limit to the tasks.

Participants of the second pilot test ($n=10$) were bilingual Malay-English speakers: eight females and two males, aged 19 to 21 years. Participants were second- and third-year undergraduate students taking various courses at the University of Canterbury, New Zealand. Similar to the first pilot study, the tests were conducted individually in one classroom, based on the participant's availability. However, only measures that had shown evidence of ceiling effects in the first pilot study were used in the second pilot—the main change was that the time allowed to complete the task was reduced from five minutes to one minute. The new time limit was roughly mid-way between the minimum and maximum time taken by the first pilot participants.

The rationale for limiting the time for the measures that had shown ceiling effects was to ensure variability in performance that would indicate fluency in the skills assessed. Based on the findings of the second pilot study, it was determined that 50 seconds for the Non-Word tasks, 35 seconds for Relatedness tasks and 25 seconds for Syllable Counting tasks would be more effective for the main study. The changes made based on the first and second pilot studies were incorporated into the third pilot study that was carried out at a matriculation centre in Peninsular Malaysia, where the main study was to take place. Table 4.2 presents the Malay and English measures used in Pilot 3.

Table 4.2. Measures used in Pilot 3.

Skill	Measure	Number of items	Time allocation
Writing	Essay	N/A*	30 minutes
Grammaticality Judgement	Recognising Grammar Mistakes	10	2 minutes
	Sentence Completion	10	2 minutes
	Proofreading	10	2 minutes
Vocabulary	Vocabulary Word-Level Test	75	15 minutes
Morphological	Non-Word Task	15	5 minutes
	Word-Form Task	15	5 minutes
	Relatedness Task	25	35 seconds
Orthographic	Orthographic Choice Task	20	2 minutes
	Permissible Letter-String Task	18	2 minutes
	Orthographic Processing Task	40	50 seconds
Phonological	Non-Word Letter-String Task	20	2 minutes
	Syllables Counting Task	15	25 seconds
	Speech Sounds Task	15	2 minutes

Note. *The number of items is not applicable as the participant selected one essay topic from the three topics provided and wrote an essay based on the selected topic.

In total, 48 Malay-English bilingual students took part in the third pilot, which was carried out in groups of approximately 20 participants with the assistance of four trained research assistants, two of whom were native speakers of the Malay language, and the other two had been teaching ESL for almost 15 years (discussed in Section 4.4.1). In the third pilot study, language-related assessments and written compositions both in Malay and English were administered over eight sessions. Table 4.3 presents the demographic information of the participants in the third pilot study.

Table 4.3. Demographic information ($n=48$).

Characteristic	<i>n</i>
Age (years)	
17	1
18	46
19	1
Gender	
Male	13
Female	35
Language spoken at home	
Malay	40
Malay and English	4
Malay and Arabic	4
Highest educational qualification	
SPM*	48
Exposure to English	
Kindergarten	18
Year 1	30
Influence of Jawi @ Arabic	
No	44
Yes	4

Note. SPM = *Sijil Pelajaran Malaysia* known as the Malaysian Certificate of Education.

Besides piloting the instruments for the main study, the third pilot study also served as a platform to improvise and refine the instruction manual (both in Malay and English) and familiarise the research assistants with the instruction manual, which could facilitate the administration of the assessment in the absence of the researcher. Based on the outcome from the third pilot study, one grammar (proofreading) measure and phonology skill (speech sounds) measure, both in Malay and English, were removed because most of the participants were producing scores close to zero on the test, suggestive of a floor effect (refer to Table 4.4 for mean scores and standard deviations).

One possible reason for the low scores in these two measures could be related to the Malay and English curriculum. These two skills (i.e., proofreading and speech sounds) have not been given emphasis in the curriculum, which could have led to low scoring due to lack of background experience or practice. Furthermore, the time allocated for the Vocabulary Test, both in Malay and English, was reduced from 15 minutes to 10 minutes, based on averaging

the total time taken by the participants. In addition, modifications were made to the instruction manual where some of the instructions were re-worded to increase the clarity of instructions for the participants and research assistants. Table 4.4 presents the mean scores and standard deviation for the Malay and English measures produced by the third pilot study.

Table 4.4. Mean scores and standard deviation for the Malay and English measures.

Measures		RGM	SC	PR	VWLT	NWT	WFT	RT	OCT	PLST	OPT	NWLST	SCT	SST	ESSAY
Total score		10	10	10	75	15	15	25	20	18	40	20	15	15	100
Malay measures	<i>M</i>	7.19	7.31	2.04	61.15	9.83	11.14	21.69	14.48	12.54	39.27	13.54	15.27	1.08	72.42
	<i>SD</i>	1.66	1.94	1.15	5.75	2.58	2.32	2.59	2.53	2.69	1.05	1.73	3.00	.77	11.07
English measures	<i>M</i>	5.17	6.40	1.17	53.71	10.54	9.56	21.52	15.19	10.48	37.60	12.50	15.21	.79	47.94
	<i>SD</i>	2.15	2.13	.91	10.38	2.74	2.87	3.39	2.94	3.02	2.87	2.69	3.21	.58	12.09

Key: RGM=Recognising Grammar Mistakes, SC=Sentence Completion, PR=Proofreading, VWLT=Vocabulary Word-Level Test, NWT=Non-Word Task, WFT=Word-Form Task, RT=Relatedness Task, OCT=Orthographic Choice Task, PLST=Permissible Letter-String Task, OPT=Orthographic Processing Task, NWLST=Non-Word Letter-String Task, SCT=Syllables Counting Task, SST= Speech Sounds Task, ESSAY=Essay.

The fourth pilot study was carried out at the matriculation centre by the trained research assistants with the guidance of the modified instruction manual and revised measures based on the outcomes from Pilot 3. The four trained research assistants were given an instruction manual in either Malay or English (refer to Appendices C and D for detail) to use as their guide to conduct the assessments. The modified instruction manual outlined all necessary rules and regulations for the assessments, both for the participants and the research assistants. Table 4.5 presents the Malay and English measures used in Pilot 4.

Table 4.5. Measures used in Pilot 4.

Skill	Measure	Number of items	Time allocation
Writing	Essay	N/A*	30 minutes
Grammaticality Judgement	Recognising Grammar Mistakes	10	2 minutes
	Sentence Completion	10	2 minutes
Vocabulary	Vocabulary Word-Level Test	75	10 minutes
Morphological	Non-Word Task	15	5 minutes
	Word-Form Task	15	5 minutes
	Relatedness Task	25	35 seconds
Orthographic	Orthographic Choice Task	20	2 minutes
	Permissible Letter-String Task	18	2 minutes
	Orthographic Processing Task	40	50 seconds
Phonological	Non-Word Letter-String Task	20	2 minutes
	Syllables Counting Task	15	25 seconds

Note. *The number of items is not applicable as the participant selects one essay topic from the three topics provided and writes an essay based on the selected topic.

In the fourth pilot study, 58 Malay-English bilingual students participated in groups of approximately 20. At the start of the pilot study, 60 students participated; however, two participants withdrew for medical reasons. The remaining 58 participants were considered to constitute an acceptable sample size for conducting this pilot study, as 10–20% of the final sample is sufficient to represent the total number that will take part in the main study (Baker, 1994). Table 4.6 presents the demographic information of the participants of Pilot 4.

Table 4.6. Demographic information ($n=58$).

Characteristic	<i>n</i>
Age (years)	
17	2
18	55
19	1
Gender	
Male	17
Female	41
Language spoken at home	
Malay	42
Malay and English	11
Malay and Arabic	5
Highest educational qualification	
SPM*	58
Exposure to English	
Kindergarten	19
Year 1	39
Influence of Jawi @ Arabic	
No	53
Yes	5

Note. SPM = *Sijil Pelajaran Malaysia* known as the Malaysian Certificate of Education.

Similar to the third pilot study, the assessments were administered in a classroom with an examination setting familiar to Malaysian students. The assessments were administered over a number of sessions, depending on participant availability, with each session taking approximately one hour. These were designed to avoid fatigue, stress and boredom, which can hinder authenticity of the data. Throughout the assessments, the researcher was present at the centre in case the research assistants needed further clarification and/or assistance. Table 4.7 presents the mean scores and standard deviations for the Malay and English measures produced by the fourth pilot study.

Table 4.7. Mean scores and standard deviations for the Malay and English measures.

Measures		RGM	SC	VWLT	NWT	WFT	RT	OCT	PLST	OPT	NWTST	SCT	ESSAY
Total score		10	10	75	15	15	25	20	18	40	20	15	100
Malay measures	<i>M</i>	7.41	7.78	62.14	9.07	10.19	20.79	15.24	13.81	36.26	15.28	11.90	70.43
	<i>SD</i>	1.32	1.01	5.24	1.86	1.64	1.84	1.85	2.00	2.44	1.88	1.19	7.31
English measures	<i>M</i>	5.05	5.66	54.64	7.78	6.93	17.22	12.40	10.43	32.40	12.24	9.64	47.52
	<i>SD</i>	1.52	1.40	7.33	2.10	2.18	2.48	1.98	2.27	3.44	2.23	1.39	11.06

Key: RGM=Recognising Grammar Mistakes, SC=Sentence Completion, VWLT=Vocabulary Word-Level Test, NWT=Non-Word Task, WFT=Word-Form Task, RT=Relatedness Task, OCT=Orthographic Choice Task, PLST=Permissible Letter-String Task, OPT=Orthographic Processing Task, NWTST=Non-Word Letter-String Task, SCT=Syllables Counting Task, ESSAY=Essay.

4.4 General Testing Procedures

The main study took place at a matriculation centre in Peninsular Malaysia with 120 Malay-English bilingual students (refer to Chapter 5, Table 5.1. Demographic information for details). The assessments were administered in groups ($n=20$) by four trained research assistants who had lectured at the matriculation centre for several years (as discussed in 4.4.1. Research Assistants). Similar to the third and fourth pilot studies, assessments were administered in classrooms with common Malaysian examination settings. The test items were designed based on the Malaysian national examination format as the participants were familiar with this.

There were four designated classrooms assigned by the matriculation centre for the purpose of this study and also to avoid distraction caused by extracurricular activities at the centre. The participants were briefed on the procedures before the assessments started, and they were only allowed to bring specific stationery to the designated test venue. Participants were provided with examples prior to the test, to ensure they could understand the task requirements. The test booklets were printed on single-sided A4 paper, using Times New Roman font, size 12. Participants were required to record all their answers in the test booklets for scoring.

The assessments were administered over 24 sessions, with 20 participants in each session, and each student participating in four sessions. Each assessment session lasted approximately one hour, including short breaks between sections to avoid participant fatigue. The number of sessions and time allocated for each session were determined by taking into consideration research assistants' and participants' availability. Throughout the sessions, the researcher was present to ensure the correct procedure of the assessment, and address queries posed by the assistants. At the end of all four sessions, the research assistants were given instruction manuals, marking regulations, answer keys and an Excel spreadsheet for the marking process. In contrast, the Malay and English essay scripts were numbered (i.e., 1 to 120) and sent for centralised external marking. The following paragraphs describe and justify the development of each task in-depth, by illustrating one example in each language: Malay and English (refer to Appendices A and B for further detail).

4.4.1 Research Assistants

Four research assistants from the matriculation centre, where the study took place, volunteered to assist at the main study. Since the aims of the study were to investigate writing proficiency and explore cross-linguistic transfer within and between the Malay and English languages, the assessment process was divided into two: one in the Malay language and the other in English,

in order for the research assistants to give the instructions either in Standard Malay or English. The rationale for choosing the research assistants was that two of them were native speakers of the Malay language, and the other two had taught English for over 15 years. The Malay lecturers both held master's degrees in Malay Language Studies, while the English lecturers had a master's degree in teaching ESL.

Furthermore, these four research assistants had been preparing, moderating and marking Malay and English exam papers for matriculation and tertiary level students for several years, and had experience of data collection (as part of their master's theses). Prior to the assessments, they were briefed and trained by the researcher on the procedures involved in the data collection and were provided with an instruction manual either in Malay or English, depending on the session. At the end of each session, the research assistants were given the answer keys for marking and an Excel spreadsheet to record the participants' marks. The assessments were marked and kept in a secure locker by the assistants until the responses and questionnaires were collected by the researcher.

4.4.2 Ethical Approval

In order to conduct this research involving human participants, the researcher obtained ethical approval from the University of Canterbury, the Malaysian EPU, the Malaysian MoE, and from the Malaysian Matriculation Programme Division. The researcher adhered to all guidelines and regulations specified by the University of Canterbury, Malaysian EPU, Malaysian MoE, and Malaysian Matriculation Programme Division to obtain their approval (Appendices E and F). In addition, both the Malay and English measures and the background questionnaire were reviewed by the Malaysian EPU, Malaysian MoE, and Malaysian Matriculation Programme Division staff (members of their research panels) before consent to conduct the study was granted.

4.4.3 Writing Tasks

Three essay topics were given to measure writing skills in the Malay and English language. The following paragraphs briefly explain the development of the measure in terms of rationale, design, procedure, essay topic(s), and marking rubric and criteria.

I. Essay

Rationale

The writing task is the outcome or dependent variable in this study. Timed essays were administered because they are often applied in large-scale L2 writing tasks. Timed essays offer a practical and efficient opportunity to measure a selection of writing samples (East, 2007, 2009), and have been considered one of the most effective ways of assessing a learner's writing ability (Wong, 2012).

Design

The Malay and English writing tasks consisted of three essay topics. The essay topics were adapted from previous Malaysian national exam papers and IELTS exam papers.

Procedure

The Malay and English writing tasks required the participants to choose one out of three essay topics for each language (Malay and English) and write an essay based on the selected topic. Participants were given 30 minutes for each language and their essays were assessed based on Jacobs et al. (1981) rubrics. The writing assessments in Malay and English were administered in different sessions.

Example of a Malay essay topic

**Kedatangan buruh asing ke negara kita mendatangkan pelbagai kesan. Jelaskan kesan-kesan yang timbul daripada kemasukan pendatang buruh asing di negara kita.*

**Note: The arrival of foreign migrant workers in Malaysia has resulted in many effects. Explain the effects that have arisen from the influx of foreign migrant workers in Malaysia.*

Example of an English essay topic

How can we prevent global warming from destroying our planet?

Marking rubric and criteria

In line with the objectives of this study, the essay scripts were marked using the ESL Composition Profile rubrics that were adopted from Jacobs et al. (1981). The standardised analytic scoring rubric for Malay composition writing has not been widely used or researched;

therefore, the researcher adapted the ESL Composition Profile rubrics by Jacobs et al. (1981) to facilitate marking of the Malay essay scripts. Prior to grading, both the Malay and English essay rubrics were validated by experienced academics for reliability.

The essay scripts were sent to two independent examiners for each language (English and Malay) together with the marking rubrics. This was to avoid bias (e.g., teachers grading their own students) if the essay scripts were to be marked by the research assistants from the matriculation centre. All four independent markers (two for each language) were experienced examiners and have marked *SPM* and *STPM* essay scripts for both Malay and English, the MUET and IELTS for a number of years.

Based on previous research (Nemati, 1999), Jacobs et al. (1981) developed a five-category ESL Composition Profile comprising content (30%), organisation (20%), vocabulary (20%), language use (25%), and mechanics (5%). However, for this study, the five scales accounted for equal proportions of marks: content (20%); organisation (20%); vocabulary (20%); language use (20%); and mechanics (20%). This was done for the purpose of this study as unweighted marks may reflect on the interpretation of the results. Therefore, in this study, the highest possible score that could be awarded to a participant was 100 and the lowest was 25.

As stated, the participants' essay scripts were analytically rated using the ESL Composition Profile designed by Jacobs et al. (1981), with each scale measuring an important aspect of writing a composition. Moreover, a high level of internal and external validity has been established in the field of L2 writing by using the analytic rubrics (Brooks, 2012) because the Jacobs et al. (1981) rubrics not only enable graders to award participants' composition marks objectively (Haswell, 2004), they are also ideally used in ESL composition scoring (Hamp-Lyons, 1990, 1991).

Before the scores were entered into the Statistical Package for the Social Sciences (SPSS version 24) for analysis, the researcher randomly selected 40 scripts from the language assessment tasks for both languages, and 40 essay scripts from each examiner to check the accuracy and consistency in their markings (as discussed in Chapter 5, 5.5. Item Reliability).

4.4.4 Grammar Task

There were two sections in the Malay and English Grammaticality Judgement Test measures: Recognising Grammar Mistakes and Sentence Completion. The following paragraphs briefly explain the development of the measures in terms of rationale, design, procedure and examples.

I. Grammaticality Judgement Test

Rationale

The Grammaticality Judgement Test (GJT) provides information on L2 learners' linguistic ability, mainly on their morph-syntactic proficiency (Loewen, 2009; Mandell, 1999). This test identifies the differences between participants' competency and performance (Ellis, 1990) by separating their internalised knowledge and actual performance (Han, 2000). However, literature suggests that the available GJT has been criticised by several SLA researchers for test reliability and objectives (Han, 2000; Tabatabaei & Dehghani, 2012). Taking this into account and keeping in mind the objective of the current study, the researcher developed a GJT for this study instead of adopting an available test.

Design

The Malay GJT was designed based on the structure of the English GJT. The researcher used past years' Malaysian national exam papers to develop the Malay GJT. The English GJT was adapted from EnglishTestStore and past years' MUET exam papers. The GJT is divided into two sections and consists of one example and 10 items to measure the linguistic ability of L1 and L2. Both sections (Recognising Grammar Mistakes and Sentence Completion) comprise of multiple-choice questions, with four choice items (A–D), with one being the answer and the other three as distractors.

Procedure

In the Recognising Grammar Mistakes section, participants were given four underlined words or phrases in each sentence. They were required to read the sentences carefully and circle the underlined word or phrase that was incorrect for each of the sentences. In the Sentence Completion section, participants were required to fill in the blank in each question by circling the most suitable word or phrase that completed the sentences. In both sections (Recognising Grammar Mistakes, and Sentence Completion), they were advised to spend two minutes on each item and were given an example for reference.

1. Recognising Grammar Mistakes

Malay measure

Example:

Sejenis spesies baru cendawan yang terbesar di dunia telah ditemui di Mexico baru-baru ini.

A

B

 C

D

Answer: C

English measure

Example:

Astronomers use photography and sighting telescopes to study the motions of all of the bright

A

B

C

stars and many of the pale one.

 D

Answer: D

2. Sentence Completion

Malay measure

Example:

Pelaksanaan Kawasan Perdagangan Bebas ASEAN (AFTA) menyebabkan para peniaga-peniaga bersaing _____ satu sama lain.

A. dengan

 B. antara

C. dari

D. daripada

Answer: B. antara

English measure

Example:

Sophie is very keen _____ to the Art College in Kuala Lumpur.

A. *about going* C. *at going*

B. *on going* D. *in going*

Answer: B

4.4.5 Vocabulary Task

There were five sections in the Vocabulary Word-Level Test: Sections A–E. The following paragraphs briefly explain the development of the measure in terms of rationale, design, procedure and examples.

I. Vocabulary Word-Level Test

Rationale

The vocabulary measure was developed because L2 vocabulary is the best predictor of L2 proficiency and a necessary aspect for the evaluation of a person's writing quality (Engber, 1995; Grobe, 1981; Laufer & Goldstein, 2004; Nation, 2001). Sufficient vocabulary knowledge is essential to achieve the objective in writing (Yang, Baba, & Cumming, 2004).

Design

The vocabulary assessment developed by Schmitt, Schmitt and Clapham (2001) was adopted for this study, and was also used as a framework to develop the Malay vocabulary assessment. The choice of words to assess the participants' knowledge of vocabulary in the Malay language was taken from past Malaysian national exam papers, textbooks and *The Institute of Language and Literature Malaysia* dictionary, which were then categorised according to the level of difficulty. The study used receptive vocabulary to indicate the participants' proficiency level in L2 (Nation, 2001), as it has been acknowledged that receptive vocabulary knowledge leads to productive vocabulary knowledge and vocabulary usage (Meara, 1996; Laufer, 1988).

Procedure

The test consisted of five questions in each section, with target words presented in the left column to match with potential definitions. The vocabulary measure required the participants to match the word with the correct definition. The level of difficulty increased as the participants moved from one section to another. They were advised to spend 10 minutes to complete all five sections (i.e., Section A–E) and an example was given for reference.

Example of Malay Vocabulary Test

Bahagian ini menguji pemahaman kosa kata anda perlu mengenal pasti jawapan yang betul bagi setiap maksud yang diberikan. Tulis jawapan anda bersebelahan dengan maksudnya. Anda dinasihati supaya mengambil masa 10 minit untuk menjawab bahagian A hingga E. Contoh di bawah adalah untuk rujukan anda.

1. *sahsiah*
2. *obligasi* _____ *ungkapan*
3. *slogan* _____ *bercakap sendiri*
4. *amanah* _____ *semangat*
5. *kejujuran*
6. *monolog*

Jawapan anda perlu mengikuti turutan yang berikut:

1. *sahsiah*
2. *obligasi* 3 *ungkapan*
3. *slogan* 6 *bercakap sendiri*
4. *amanah* 2 *semangat*
5. *kejujuran*
6. *monolog*

Perkataan lain dalam penilaian ini adalah untuk menentukan sama ada anda dapat mengenal pasti maksud yang tepat bagi kosa kata tersebut. Anda tidak perlu mencari maksud bagi perkataan tersebut. Dalam contoh di atas, perkataan *sahsiah*, *amanah* dan *kejujuran*, adalah pilihan perkataan selain daripada jawapan, yang perlu diabaikan.

Anda dikehendaki menjawab semua bahagian di penilaian ini.

Example of English Vocabulary Test

This is a vocabulary test. You must choose the right word to go with each meaning. Write the number of that word next to its meaning. You are advised to spend 10 minutes from Section A to Section E. Here is an example.

1. *business*
2. *clock* _____ *part of a house*
3. *horse* _____ *animal with four legs*

4. *pencil* _____ *something used for writing*
 5. *shoe*
 6. *wall*

You answer it in the following way:

1. *business*
 2. *clock* 6 *part of a house*
 3. *horse* 3 *animal with four legs*
 4. *pencil* 4 *something used for writing*
 5. *shoe*
 6. *wall*

Some words are in the test to make it more difficult. You do not have to find a meaning for these words. In the example above, these words are business, clock, shoe.

Try to do every part of the test.

4.4.6 Morphological Skill

Three measures were used in the Malay and English morphological skill assessments: Non-Word Task; Word-Form Task; and Relatedness Task. The following paragraphs briefly explain the development of the measures in terms of rationale, design, procedure and examples.

I. Non-Word Task

Rationale

The non-word measures were developed to assess participants' understanding in recognising and applying the correct morphological rules (i.e., affixes) in forming non-words. The Non-Word Task, also known as the "Wug Test", was first administered by Berko (1958) to children and adult learners to discern how they apply the rules of grammar to new non-words.

Design

A total of 10 items were adapted for the Non-Word Sentence Task from Nair (2013), from which two items were used as examples. The researcher further developed seven more items to be included in the Non-Word Malay tasks by taking into consideration the Malay orthography rules (as detailed in Chapter 3). Given that there are few reliable English non-word measures appropriate for adult learners, the researcher adapted the English non-word measures

from Berko (1958), Nunes et al. (1997), Muse (2005) and Tighe (2012). Both the Malay and English non-word measures were presented in the form of Sentence Completion tasks where clues were given either at the beginning, middle or at the end of the sentence.

Procedure

Based on the given clues, participants were required to fill in the blanks by using the correct affixes to form a new non-word and complete the sentence. They were advised to spend five minutes on this Non-Word section and two examples were given for their reference.

Malay measure

Example 1:

Di belakang rumah saya ada beberapa runda. Ada runda kelapa, runda rambutan dan runda durian. Tetapi di belakang rumah Hasnah kawasannya lapang dan tidak _____.

Answer: berunda

Example 2:

Halim meninjuk kepada lukisan itu. Dia _____ bahawa lukisan itu adalah palsu.

Answer: meninjukan

English measure

Example 1:

This animal is called a wug. There are four of them. There are four _____.

Answer: wugs

Example 2:

This man knows how to zib. Yesterday, he zibbed. Today, he is doing the same thing. Today he is _____.

Answer: zibbing

II. Word-Form Task

Rationale

The word-form measures were developed to assess participants' understanding of forming words using the correct affixes. The Word-Form Task, also known as "Extract the Base" by August, Kenyon, Malabonga, Louguit, Caglarcan and Carlo (2001), was first developed at the Centre for Applied Linguistics, based on studies by Anglin (1993) and Carlisle (1988). The Word-Form Task has been administered to bilingual children and adults to measure the role of grammar and word parts. The Word-Form Task requires the participants to extract the base of a derived word and compare it to inflected morphology, where the derived morphology is the most difficult aspect (Zhao, 2011).

Design

A total of 17 word-form items were adopted from Wilson-Fowler (2011), and Wilson-Fowler and Apel (2015) for the English measure, of which two were used as examples. The English Word-Form tasks served as a platform to develop the Malay word-form items. The total items developed for the Malay Word-Form tasks were similar in number to the English items. The Malay and English Word-Form tasks were presented in the form of Sentence Completion tasks where a root word was given and participants had to use the correct affixes to form a word.

Procedure

Based on the given root word, participants were required to fill in the blanks by using the right affixes to form a word to complete the sentence. They were advised to use only one word for each blank (no phrases). They must change the root word given with the correct form of affixes without changing the context. They were advised to spend five minutes on the word-form section and two examples were given for their reference.

Malay measure

Example 1:

Kelulusan dalam mata pelajaran Bahasa Melayu menjadi satu prasyarat untuk masuk Tingkatan Enam.

Answer: memasuki

Example 2:

Remaja perlu lengkap diri dengan pelbagai kemahiran untuk mendepani pelbagai cabaran pada masa hadapan.

Answer: melengkapkan

English measure**Example 1:**

John wanted to make a good impress on his first date.

Answer: impression

Example 2:

The farmer was concerned about the fertile of the fields prior to planting.

Answer: fertility

III. Relatedness Task**Rationale**

The Relatedness measure was developed to assess the participants' understanding of morphological structure and word formation and the relationship between words and their internal morphological structure (Bentin & Feldman, 1990; Feldman, 1991). The Relatedness Task, also known as the "Comes From," was administered by Derwing (1976) to children, adolescent and adult learners to determine their understanding of morpheme families.

Design

A total of 27 items were adopted from Curinga (2014) for the English Relatedness tasks, from which two were used as examples. The English Relatedness tasks served as a benchmark to develop the Malay Relatedness tasks while accounting for the language's derivational rules. The words were presented in pairs and participants had to decide if the second word came from the first word, and whether it had a similar meaning or not.

Procedure

In this task participants were presented with two words, and had to decide if the second word was derived from the first word. Participants were required to underline "YES" if the second

word meant the same thing or almost the same thing as the first word, or “NO” if the second word did not have a similar meaning to the first word. This was a timed task where the participants were given 35 seconds to complete the task with two examples given for their reference.

Malay measure

Example 1:

Answer: *kebun* *pekebun* **YA** *TIDAK*

Example 2:

Answer: *nasi* *penasihat* *YA* **TIDAK**

English measure

Example 1:

Answer: *happy* *happiness* **YES** *NO*

Example 2:

Answer: *cat* *category* *YES* **NO**

4.4.7 Orthographic Skill

Three measures were used in the Malay and English orthographic skill assessments: Orthographic Choice Task; Permissible Letter-Strings Task; and Orthographic Processing Task. The following paragraphs briefly explain the development of the measures in terms of rationale, design, procedure and examples.

I. Orthographic Choice Task

Rationale

The Orthographic Choice Task was developed to assess participants’ skills in recognising the correct spelling of a word (Oslo, Kliegl, Davidson, & Foltz, 1985; Olson, Wise, Conners, Rack, & Fulker, 1989). It also assessed participants’ ability to access a word from their mental verbal lexicon when they are unable to retrieve it through grapheme-phoneme translation processes (Nenopoulou, 2005).

Design

A total of 21 items were adapted from Oslon et al. (1985) for the English Orthographic Choice tasks, from which one was used as an example. The English Orthographic Choice tasks were used as a platform to develop the Malay Orthographic Choice tasks while taking the Malay orthographical rules into account. The items in the Orthographic Choice tasks were presented in pairs. Participants were required to identify and underline the correctly spelt word in each pair.

Procedure

In the Orthographic Choice Task, participants were required to identify and underline the correctly spelt word from a pair of items, one of which was a word and the other a non-word. Participants were advised to spend two minutes on this task and an example was given for their reference.

Malay measure

Example:

bumiputra *bumiputera*

English measure

Example:

munk *monk*

II. Permissible Letter-Strings Task

Rationale

The Permissible Letter-Strings Task was developed to measure participants' ability to recognise various orthographical patterns in English (Cassar & Treiman, 1997; Siegel, Share, & Geva, 1995; Treiman, 1993; Wang, Perfetti, & Liu, 2005; Wang, Yang, & Cheng, 2009; Zhao, 2011). Similar permissible letter-strings tasks have been administered to bilingual children to examine their knowledge in letter choices to spell words in English (Cassar & Treiman, 1997; Treiman, 1993).

Design

In total, 19 items were adopted from Wang et al. (2005) and Cassar and Treiman (1997) for the English Permissible Letter-Strings Task, with one item used as an example. Based on the English tasks, the Malay Permissible Letter-Strings Task was developed while taking into consideration the Malay orthographical rules of spelling formation. The items for this task were presented in pairs and participants were required to choose and underline the letter-strings that conformed to the rules of the writing system (English or Malay).

Procedure

In the Permissible Letter-Strings Task, the participants were presented with a pair of items. They were required to identify and underline the letter-strings that sounded more like a word, even if they had not seen or heard these words before. Participants were instructed to spend two minutes on this section and an example was given.

Malay measure

Example:

merba *berba*

English measure

Example:

baff *bbaf*

III. Orthographic Processing Task

Rationale

The Orthographic Processing Task was developed to measure participants' word-specific orthographic knowledge while controlling for phonological skills (Aaron, Joshi, & Williams, 1999; Cunningham, Perry, & Stanovich, 2001; Stanovich & West, 1989; Zhao, 2011). It measures participants' ability to recognise words rather than using grapheme-phoneme correspondence (Aaron et al., 1999).

Design

In total, 41 items were adopted from Aaron et al. (1999) and Zhao (2011) for the English Orthographic Processing Task, with one item used as an example. Taking the Malay orthographic rules into account, the Malay Orthographic Processing Task was developed by using the English Task as the foundation. Participants were presented with three-letter strings that sounded similar and from these, needed to identify and underline the non-word.

Procedure

In the Orthographic Processing Task participants were presented with a triad of letter-strings that produced similar pronunciations based on grapheme-phoneme correspondence and were required to identify and underline the one which was a non-word. This was a timed task where the participants were given 50 seconds to complete the task with an example given for reference.

Malay measure

Example:

pijak injak tjak

English measure

Example:

see sea cee

4.4.8 Phonological Skill

These two measures were used in the Malay and English phonological skill assessments: Non-Word Letter-String Task and Syllable Counting Task. The following paragraphs briefly explain the development of the measures in terms of rationale, design, procedure and examples.

I. Non-Word Letter-String Task

Rationale

The Non-Word Letter-String Task was developed to measure participants' ability to decode a string of letters into a related articulation of a word. This ability can be considered as a fundamental literacy skill or as indicative of phonological translation processes (Dollaghan &

Campbell, 1998). The fundamental element to accessing the lexicon is phonological coding, which involves internal generation of an abstract sound-based code from the letter-string (Baron & Strawson, 1976; Besner, Coltheart, & Davelaar, 1984; Olson et al., 1985; Saffran & Marin, 1977).

Design

In total, 21 items were adopted from Olson et al. (1985) for the English Non-Word Letter-String tasks, with one item used as an example. The Malay Non-Word Letter-String tasks were developed using the English Task as the platform while taking into consideration Malay phonological rules. The items for this task were presented in pairs and participants were required to choose and underline the correct non-word letter-string that sounded more like an English word or a Malay word.

Procedure

In the Non-Word Letter-String tasks, participants were presented with a pair of letter-strings, from which only one sounded like an actual word in English or Malay. They were required to identify and underline the non-word letter-string that sounded more like the actual word in English or Malay, even if they had not seen or heard these before. They were instructed to spend two minutes on this section and an example was given.

Malay measure**Example:**

bene *bepi*

English measure**Example:**

caim *pame*

II. Syllable Counting Task**Rationale**

The Syllable Counting Task was designed to gauge participants' ability to segment words into sounds and syllables heard in an oral language (Chard & Dickson, 1999) and their ability to recognise sounds within a word (Sadeghi, 2013; Zhoa, 2011).

Design

The Syllable Counting Task was developed based on Zhoa's (2011) task. The words for both the Malay and English tasks were selected from Malaysian national exam papers. A total of 16 items were developed for each language, with one item used as an example. The participants were presented with a list of words, and for each word they needed to count the number of syllables and write the number next to the word.

Procedure

In this Syllable Counting Task, students were presented with a list of words where they were required to count the number of syllables per word and write the number next to the word. This was a timed task; they were given 25 seconds to complete the task. To aid participants' understanding of the task, an example was verbally presented before proceeding with the task.

Malay measure

Example:

syarikat *sya/ri/kat* 3

English measure

Example:

café *ca/fé* 2

4.5 Summary

This chapter highlighted the general procedures, participants, research assistants, ethical approval and execution of the four pilot studies, which were carried out in Christchurch, New Zealand and Peninsular Malaysia among Malay-English bilingual students. This chapter provided details of the development of the Malay and English measures based on past studies and the relevant literature. The measures were reviewed by a number of experienced academics in both Malay and English. Based on the comments and suggestions received, and results from the four pilot studies, the Malay and English measures were further reviewed, revised and modified in order to be appropriate for the target population—Malay-English adult bilingual learners in Peninsular Malaysia. The pilot studies provided a better understanding of the administration process of the Malay and English measures before implementation in the main study. Based on the feedback from the pilot studies, changes were made to the measures in terms of instructions, timing, increasing the level of difficulty, reducing the number of items or removing a whole sub-test from the assessment battery. The sub-tests that produced a satisfactory level of variability were included in the main study; however, measures that did not produce any variability were completely removed from the study. Full details of the 24 sub-tests, both in Malay and English, can be referred to in the Appendices. The following chapter first discusses the descriptive statistics and reliability of the test items used in the study using Cronbach's alpha, followed by the data that were collected from the 120 Malay-English adult bilingual students who took part in the main study at a matriculation centre in Peninsular Malaysia. Lastly, findings from the study are reported based on correlation, partial correlation and hierarchical regression analyses.

CHAPTER 5

Findings: ESL Writing and Cross-Linguistic Transfer in Essay Writings

5.1 Introduction

This chapter presents the findings of this quantitative study of Malaysian students' English (L2) writing. As reported in Chapter 4, this study developed and adopted a battery of Malay and English measures to address the following research objectives: (1) to investigate whether Malay-English adult bilingual learners' knowledge of morphology, orthography and phonology would facilitate their L2 writing, compared to vocabulary and grammar knowledge; and (2) to investigate whether morphology, orthography and phonology skills are transferable across languages to support their L2 writing ability. The measures were formulated by taking into consideration the Malay orthography and the Malaysian school curriculum (as detailed in Chapter 3). Data was collected from 120 Malay-English adult bilingual matriculation students from Peninsular Malaysia, who had been learning ESL (L2) for 11 to 12 years. Analyses were performed using SPSS version 24 and included descriptive statistics, correlation, partial correlation and hierarchical regression analyses.

In order to understand the flow of this chapter, the findings are reported in this sequence. First, the students' writing was explored by measuring the relationship between L2 writing and the other English measures administered (i.e., English Vocabulary Task, English Grammar Task, English Morphological Task, English Orthographic Task, English Phonological Task and English Essay). Next, to further understand the participants' L2 writing, 60 English essay scripts were randomly selected from 120 English essay scripts and the number of words written, the proportion of spelling errors, the proportion of grammar errors and the proportion of repeated words were counted for analyses. Finally, the Malay and English measures (12 subtests for each language) were analysed, and cross-linguistic transfer between Malay and English essay writing is reported on.

5.2 Participants

Data were collected from a cohort of 120 Malay-English bilingual students. Participants were recruited from a public matriculation centre in Peninsular Malaysia. All participants had completed their Malaysian Certificate of Education, also known as *Sijil Pelajaran Malaysia (SPM)*, before being accepted for matriculation. All participants were in their first semester of the pre-university programme and enrolled in a two-year programme consisting of four

semesters. Prior to obtaining admission to matriculation, all participants had studied ESL (L2) for 11 to 12 years from primary to secondary level in national schools in Peninsular Malaysia, where they had three and a half hours of formal English lessons per week (see Section 3.12).

All participants spoke Malay as their L1 and English as their L2. Even though the participants came from different public schools across Peninsular Malaysia, the National Curriculum Development Division implements a common curriculum throughout Malaysia. It is important to highlight here that Malaysia, being a multinational country, consists of three main ethnic groups, namely Malay, Chinese and Indian (Asmah, 1998; Huzaina, 2013). Ethnic Malays in Malaysia speak Malay as their L1 and it is also the main common language spoken among Indians, Chinese and others (Phoon et al., 2014). Chinese and Indians in Malaysia are mainly trilingual or multilingual (Kim, Siong, Fei, & Ya'acob, 2010).

As the aims of this study were to investigate relevant linguistic aspect that may support L2 writing ability and cross-linguistic transfer across Malay and English languages among Malay-English adult bilingual learners, this study only recruited native speakers of the Malay language because they were bilingual, that is, they spoke Malay as their L1 and English as their L2. Both of these languages share the same alphabetical scripts (as detailed in Chapter 3). Based on information provided by the matriculation centre, the participants' home income ranged from average to high and participants lived in either urban or sub-urban areas. In the urban and sub-urban areas, participants had more opportunities for exposure to English through social media, their home environment and interacting with others—outside of their weekly formal English training at schools. Records indicated that there were no reported language learning difficulties faced by participants recruited for this study.

Before the assessments took place, participants were given an information sheet (refer to Appendix H) a consent form (refer to Appendix I) and a demographic questionnaire (refer to Appendix G). They were also given the option to choose their preferred language as English or Malay on the information sheet, consent form and the demography questionnaire. The consent form detailed the objectives of the study and guaranteed them anonymity and confidentiality. The participants were assured that their involvement was purely voluntary and would not affect their academic grades in any manner or at any point of time. Since participation was on a voluntary basis, they had the right to withdraw from the study at any time without being subjected to any form of penalty; at which point any information pertaining to the participant would be removed as long as this was practically feasible. The demographic

questionnaire elicited a profile of the participants (i.e., age, gender) and also ensured that all recruited participants were Malay-English bilingual speakers who spoke Malay as their L1 and English as L2; that they had completed upper secondary schooling from one of the public schools in Peninsular Malaysia; and that they were first-year matriculation students.

Once the participants had a clear understanding of the demographic questionnaire and consent form, the participants then returned the signed consent form and the completed questionnaire. The researcher received the forms and the demographic questionnaires in sealed envelopes. Table 5.1 presents the participant demographics. Based on the information provided by the participants in their demographic questionnaires, the researcher formulated a schedule to conduct the main study, with details such as the time, date, session and venue provided to participants (as detailed in Section 4.3).

Table 5.1. Demographic information ($n = 120$).

Characteristic	<i>n</i>
Age (years)	
17	1
18	88
19	31
Gender	
Male	30
Female	90
Language spoken at home	
Malay	104
Malay and English	11
Malay and Arabic	5
Highest educational qualification	
SPM*	120
Exposure to English	
Kindergarten	58
Year 1	62
Influence of Jawi @ Arabic	
No	115
Yes	5

Note. SPM = *Sijil Pelajaran Malaysia* known as the Malaysian Certificate of Education.

5.3 Data Collection Procedure

The data collection process and two pilot studies took place at a matriculation centre in Peninsular Malaysia from the end of July 2016 to mid-February 2017. Pilot studies were conducted to check the understandability of the tasks and procedures, difficulty of measures and the applicability of the measure in the context it would be implemented in (as detailed in Section 4.2). Prior to the main data collection, an initial formal meeting was conducted between the researcher, the Director and the Head of Department of the matriculation centre to brief them on the nature of the research (refer to Appendices J, K, L and M). Next, the researcher met the language coordinator in order to identify the target sample group who spoke Malay as their L1 and English as their L2. Lastly, the researcher met the lecturers to arrange a suitable time to distribute the cover letters that detailed the nature of the study, the consent form for the respondents to acknowledge their participation in the study (refer to Appendices N and O) and the demographic questionnaire in order to collate participants' background information (e.g., age, gender).

A schedule for data collection was formulated based on the information provided by the participants, by taking into consideration both the participants' and the lecturers' availabilities. The schedule was made available in hard copy and soft copy for both the participants and the lecturers in order for them to be present at the assigned venue at the required time and date. There were 24 sessions in total ($n=20$ in each session) and each session lasted approximately one hour (see Section 4.3). The assessments were administered in four separate sessions (12 sessions for each language).

The overall assessment process took approximately four weeks to complete. The first two weeks were allocated for the Malay measures and the next two weeks mainly catered for the English measures. Both the Malay and English measures were administered in groups of 20 with the assistance of trained research assistants. Assessments were carried out in designated classrooms allocated by the college management for the purpose of this study. The assessments were administered according to the Malaysian examination settings. Each session lasted approximately one hour, with breaks between each assessment. The measures were administered in sequence in order for participants to connect earlier tasks to the present task. This meant that a concept in one task could provide the required understanding for a subsequent task. The assessments were administered in pencil and paper form. At the end of each

assessment, answers were marked dichotomously (i.e., 1 = correct; 0 = incorrect), and marks were recorded in an Excel spreadsheet.

In Sessions 1 and 2, the Malay measures were administered (i.e., Malay Recognising Grammar Mistakes, Malay Sentence Completion, Malay Vocabulary Word-Level Test, Malay Non-Word Task, Malay Word-Form Task, Malay Relatedness Task, Malay Orthographic Choice Task, Malay Permissible Letter-String Task, Malay Orthographic Processing Task, Malay Non-Word Letter-String Task, Malay Syllables Counting Task and Malay Essay). Sessions 3 and 4 were devoted to administering the English measures (i.e., English Recognising Grammar Mistakes, English Sentence Completion, English Vocabulary Word-Level Test, English Non-Word Task, English Word-Form Task, English Relatedness Task, English Orthographic Choice Task, English Permissible Letter-String Task, English Orthographic Processing Task, English Non-Word Letter-String Task, English Syllables Counting Task and English Essay). Research assistants were given an instruction manual either in Malay or English (according to the session) as a guideline (see Appendices C and D) and the researcher was present during all sessions.

For essay writing, participants were given 30 minutes to write an essay based on one of three provided essay topics. The participants were given the liberty to write as many words as they wanted to within the allocated timeframe. The essay topics were adapted by the researcher from past SPM and IELTS written examinations (see previous descriptions of measures in Chapter 4). Participants were familiar with the task of writing a timed impromptu essay while they were at secondary school. In the context of Malaysian education, both lower and upper secondary school students would have been tested using timed impromptu essays as part of their national examinations. East (2007, 2009) states that a timed essay not only controls a written product, but it also provides a practical and effective way to assess selected written samples. Therefore, to measure students' writing ability, a timed essay is one of the most effective ways of achieving this (Wong, 2012). The essay scripts were analytically rated by two independent evaluators in each language using the ESL Composition Profile developed by Jacob et al. (1981). Table 5.2 presents the assessment battery for Malay and English measures used in this study.

Table 5.2. The assessment battery.

Skill	Measure	Number of items	Time allocation
Writing	Essay	N/A*	30 minutes
Grammaticality	Recognising Grammar Mistakes	10	2 minutes
Judgement	Sentence Completion	10	2 minutes
Vocabulary	Vocabulary Word-Level Test	75	10 minutes
Morphological	Non-Word Task	15	5 minutes
	Word-Form Task	15	5 minutes
	Relatedness Task	25	35 seconds
Orthographic	Orthographic Choice Task	20	2 minutes
	Permissible Letter-String Task	18	2 minutes
	Orthographic Processing Task	40	50 seconds
Phonological	Non-Word Letter-String Task	20	2 minutes
	Syllables Counting Task	15	25 seconds

Note. * The number of items is not applicable as the participant selected one essay topic from the three topics provided and wrote an essay based on the selected topic.

5.4 Results

The findings of this study are discussed first by presenting the descriptive statistics that report the mean and standard deviation produced by the 24 sub-tests (i.e., 12 sub-tests for each language). This is followed by item reliability in order to establish the internal consistency of the items assessed. The descriptive statistics in Table 5.3 present the mean scores and standard deviations for both the Malay and English measures produced by the participants. The results indicate that there was variability in performance across all measures as standard deviations were well above zero for both languages. The average scores for Malay and English measures did not approach the maximum possible scores for the assessed items, that is, there was no evidence of ceiling effects that could reduce variability. For all measures, there was at least one standard deviation between the mean score and the maximum possible score for each test.

Table 5.3. Mean scores and standard deviations for the Malay and English measures.

Measures		RGM	SC	VWLT	NWT	WFT	RT	OCT	PLST	OPT	NWLST	SCT	ESSAY
The highest possible score		10.00	10.00	75.00	15.00	15.00	25.00	20.00	18.00	40.00	20.00	15.00	100.00
Malay measures	<i>M</i>	6.40	6.67	60.91	9.85	10.30	20.54	14.74	13.50	34.51	14.16	11.40	74.16
	<i>SD</i>	2.46	2.39	5.91	3.04	3.01	2.98	3.23	3.10	4.47	3.46	2.46	5.62
English measures	<i>M</i>	5.30	6.00	53.70	8.78	8.33	18.67	13.80	11.76	31.75	13.34	10.16	52.31
	<i>SD</i>	2.56	2.54	7.83	3.07	3.28	3.16	3.29	3.39	3.39	3.53	2.77	9.32

Note. RGM = Recognising Grammar Mistakes; SC = Sentence Completion; VWLT = Vocabulary Word-Level Test; NWT = Non-Word Task; WFT = Word-Form Task; RT = Relatedness Task; OCT = Orthographic Choice Task; PLST = Permissible Letter-String Task; OPT = Orthographic Processing Task; NWLST = Non-Word Letter-String Task; SCT = Syllables Counting Task; ESSAY = Essay.

5.5 Item Reliability

In order to establish the reliability of the test items, two statistical analyses were administered: Cronbach's alpha for internal consistency and the Cohen's kappa for inter-rater reliability using SPSS version 24. Although Cronbach's alpha and the Kuder–Richardson Formula 20 (KR-20) produced the same internal coefficient when the items were dichotomously recorded (1 = correct; 0 = incorrect), (Furr & Bacharach, 2008; Tan, 2009). According to Fraenkel and Wallen (2008), Nunnally and Bernstein (1994), Nunnally (1978), and Wells and Wollack (2003), the acceptable value should produce a reliable coefficient of .70 and above for the test to be a reliable instrument (Sabri, 2013). For the measures used in this study, internal consistency varied from .702 to .828 (see Table 5.4).

In order to establish the degree of agreement between the two raters, Cohen's kappa was calculated to estimate the inter-rater reliability (Jonsson & Svingby, 2009). Various studies have reported that an acceptable value commonly considered to be alpha .70 and above (Altman, 1999; Brown, Glasswell, & Harland, 2004; Landis & Koch, 1977). For the current study, the essay scripts were rated by two assessors using the rubric of Jacob et al. (1981). All the essay scripts were numbered from 1 to 120, photocopied, and sent to the raters with the composition rubric attached. Prior to marking, the raters were briefed on the rubric and the marking procedures. The researcher randomly selected 40 essay scripts (from each rater) to check for any disparity in their markings. The inter-rater reliability for English essay produced between the researcher and rater 1 was .945, and .952 between the researcher and rater 2. The scores assigned by the two raters were further analysed for inter-rater reliability and produced an internal consistency of .974 (see Table 5.4).

Table 5.4. Reliability coefficients for Malay and English measures produced in this study.

Measure	Malay	English
Recognising Grammar Mistakes	.704	.705
Sentence Completion	.703	.706
Vocabulary Word-Level Test	.729	.828
Non-Word Task	.702	.704
Word-Form Task	.711	.709
Relatedness Task	.705	.702
Orthographic Choice Task	.706	.705
Permissible Letter-String Task	.708	.704
Orthographic Processing Task	.828	.795
Non-Word Letter-String Task	.702	.703
Syllables Counting Task	.707	.703
Essay*	.982	.974

Note. *Inter-rater reliability score.

5.6 Correlation Analyses for L2 Writing

A correlational design looks for relationships between variables (Cohen, 1988). In this case, the primary relationships of interest were morphology, orthography, phonology and L2 writing among Malay-English adult bilingual learners in Peninsular Malaysia. The measures of vocabulary and grammar knowledge were included because apart from their association with L2 writing, vocabulary and grammar were also found to influence the basic underlying skills of morphology, orthography and phonology. Therefore, to examine the effect of morphology, orthography and phonology skills in L2 writing, vocabulary and grammar were controlled for in this study to avoid the common influence of vocabulary and grammar knowledge, rather than morphological, orthographical and phonological skills in L2 writing. In addition to partial correlation, regression analysis was also performed to determine which independent variable(s) contributed to the dependent variable. In this regression analysis, independent variables were added in steps to determine which independent variable(s) had more significant input in the outcome variable. The interpretation of correlations reported in this study is based on Cohen (1988), who suggests that an r value between .10 and .29 is “small effect size”, between .30 and .49 is “medium effect size”, and between .50 and 1.0 is “large effect size” (pp. 79–81).

Table 5.5 presents the first-order of correlations between the total writing scores of the English essay and all the English measures used in this study. The purpose of this comparison was to analyse possible predictors of ESL writing performance. Prior to analysis, the total scores of

the variables (i.e., RGM = Recognising Grammar Mistakes; SC = Sentence Completion; NWT = Non-Word Task; WFT = Word-Form Task; RT = Relatedness Task; OCT = Orthographic Choice Task; PLST = Permissible Letter-String Task; OPT = Orthographic Processing Task; NWLST = Non-Word Letter-String Task; SCT = Syllables Counting Task) were combined according to the skill areas that they assessed. For example, the total scores for Recognising Grammar Mistakes were added to the total scores for Sentence Completion in order to assess grammar ability. The same procedure was implemented with the other variables to produce assessments of morphological skills, orthographical skills and phonological skills. As presented in Table 5.5, all the predictors and control variables administered in the study (i.e., English Vocabulary Task, English Grammar Task, English Morphological Task, English Orthographic Task and English Phonological Task) correlated with the outcome variable, which was the total essay scores.

Table 5.5. First-order correlations between writing (total scores) and all the measures used in this study.

Measure	EVOCAB	EGram	EMorp	EOrth	EPhon
EGram	.508**	—			
EMorp	.699**	.679**	—		
EOrth	.622**	.642**	.827**	—	
EPhon	.586**	.660**	.826**	.747**	—
EESSAY	.781**	.360**	.578**	.488**	.468**

Note. EVOCAB = English Vocabulary Task; EGram = English Grammar Task; EMorp = English Morphological Task; EOrth = English Orthographic Task; EPhon = English Phonological Task; EESSAY = English Essay.

* Correlation significant at the 0.05 level (2-tailed).

** Correlation significant at the 0.01 level (2-tailed).

Table 5.6 presents partial correlations controlling for English Vocabulary and English Grammar of L2 writing with the measures of morphological skills, orthographical skills and phonological skills, to further determine the relationship between the participants' L2 writing skills and predictor measures. These analyses suggest that once English Vocabulary and English Grammar were controlled for, there were no significant correlations between the participants' L2 writing ability and the assessments of morphological skills, orthographical skills and phonological skills.

Table 5.6. Partial correlations, controlling for vocabulary and grammar and all the predictor measures used in this study.

Measure	EESSAY	EMorp	EOrth
EMorp	.126	—	
EOrth	.042	.601**	—
EPhon	.067	.614**	.470**

Note. EMorp = English Morphological Task; EOrth = English Orthographic Task; EPhon = English Phonological Task; EESSAY = English Essay.

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

In order to further explore the participants' L2 writing, the Jacob et al. (1981) scale was divided into the five ESL composition categories: content, organisation, vocabulary, language use and mechanics. Table 5.7 presents the first-order of correlations between these five writing category scores and the assessments of morphological skills, orthographical skills and phonological skills. The aim of these additional correlation analyses was to provide a better understanding of the relationship between the participants' L2 writing skills and the assessment of underlying language/literacy skills. The outcome was similar to that obtained for the total essay scores. All five categories correlated strongly with the English Vocabulary Task, showed moderate correlations with the English Morphological Task, the English Orthographic Task, the English Phonological Task, and showed weak correlations with the English Grammar Task. These correlations are presented in Table 5.7 and suggest that the students with better vocabulary knowledge performed better in their ESL composition.

Table 5.7. First-order correlations between L2 writing (five categories: content, organisation, vocabulary, language use and mechanics) and all the measures used in this study.

Measure	EVOCAB	EGram	EMorp	EOrth	EPhon	EECont	EEOrga	EEVocb	EELang
EGram	.508**	—							
EMorp	.699**	.679**	—						
EOrth	.622**	.642**	.827**	—					
EPhon	.586**	.660**	.826**	.747**	—				
EECont	.789**	.354**	.577**	.488**	.466**	—			
EEOrga	.777**	.355**	.564**	.472**	.470**	.930**	—		
EEVocb	.735**	.354**	.558**	.471**	.445**	.888**	.893**	—	
EELang	.714**	.321**	.526**	.441**	.415**	.895**	.908**	.962**	—
EEMech	.764**	.354**	.568**	.486**	.469**	.904**	.922**	.934**	.938**

Note. EVOCAB = English Vocabulary Task; EGram = English Grammar Task; EMorp = English Morphological Task; EOrth = English Orthographic Task; EPhon = English Phonological Task; EECont = Content; EEOrga = Organisation; EEVocb = Vocabulary; EELang = Language; EEMech = Mechanics.

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Table 5.8 presents partial correlations controlling for English Vocabulary and English Grammar Tasks, based on the five writing score categories of content, organisation, vocabulary, language use and mechanics. This was to further determine the relationship between the participants' L2 writing levels and the potential predictor measures (i.e., those related to English morphological, orthographic and phonological skills) administered in this study. These results were similar to the outcome of the total writing scores in that morphology, orthography and phonology areas did not correlate with any of the five categories after controlling for vocabulary and grammar. This indicated that the three predictors were not predicting the Malay-English adult bilingual learners' L2 writing skills in terms of the five ESL composition categories.

Table 5.8. Partial correlations for all predictor measures used in this study controlling for vocabulary and grammar.

Measure	EECont	EEOrga	EEVocb	EELang	EEMech	EMorp	EOrth
EEOrga	.819**	—					
EEVocb	.741**	.754**	—				
EELang	.770**	.802**	.922**	—			
EEMech	.759**	.807**	.853**	.869**	—		
EMorp	.124	.099	.129	.106	.124	—	
EOrth	.043	.014	.049	.031	.057	.601**	—
EPhon	.062	.079	.051	.035	.085	.614**	.470**

Note. EMorp = English Morphological Task; EOrth = English Orthographic Task; EPhon = English Phonological Task; EECont = Content; EEOrga = Organisation; EEVocb = Vocabulary; EELang = Language; EEMech = Mechanics.

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

In order to investigate the level at which the participants' L2 writing was predicted by morphological awareness, orthographic knowledge and phonological processing, a regression analysis was conducted in which the participants' English writing scores were used as the outcome (dependent) variable. Table 5.9 reports the results of the hierarchical regression analysis which indicated that after controlling for age, gender, vocabulary and grammar, morphological awareness, orthographic knowledge and phonological processing were found not to significantly predict participants' L2 writing. The only variable that significantly explained variability in Malay-English adult bilingual learners' L2 writing was vocabulary knowledge. This significant positive relationship suggested that when the participants' knowledge of vocabulary increased, the probability of better performance in L2 writing increased also.

Table 5.9. Results of regression analysis investigating predictors of English writing for Malay-English adult bilingual learners.

Variable	R^2	R^2 change	Sig. R^2 change	Final β
Age	.094	.094	$F = 6.097$	.260
Gender			$p = .003$	.078
Vocabulary	.681	.587	$F = 105.927$	.745
Grammar			$p < .000$	-.049
Morphology	.684	.003	$F = .348$	.066
Orthography			$p = .791$	.010
Phonology				.021

In an effort to investigate participants' L2 writing skills, writing variables were gathered from 60 randomly selected essay scripts from the original 120 essay scripts. These 60 essay scripts were then coded for the number of words written, the number of spelling errors, the number of grammatical errors and the number of repeated words (i.e., excluding pronouns, articles, and auxiliary words). Table 5.10 presents the descriptive statistics for these variables. The reason this was limited to 60 essay scripts was because of the amount of work required when using an alternative scoring method. For example, in every essay script, the number of spelling and grammatical errors and the number of repeated words were manually counted and documented. This process was time consuming because each essay script was cross-checked by another research assistant. Moreover, the researcher understood the possible effect on the interpretation of the findings by using a sample of 60 scripts to analyse a high number of variables. However, the rationale for this was that the researcher focused on patterns, rather than mainly relying on

the interpretation of the findings from a theoretical viewpoint. This is because analysing patterns will provide evidence as to whether there is a relationship between the variables or if any of the variables being investigated are more likely to display certain attribution (Cohen, 1988); for example, is there a relationship between spelling and morphological awareness, orthographic knowledge and phonological processing that improves or decreases L2 writing performance?

The rationale to adapt the Not-So-Simple View of Writing model by Berninger and Winn (2006) as the study's framework was driven by the researcher's belief that the relationship of morphological awareness, orthographic knowledge, and phonological processing for the number of words written, number of spelling errors, number of grammar errors, and number of repeated words supports the writing process. For example, transcription requires orthographic and phonological skills in the writing process to support the writer to spell (Drijbooms, 2016). This suggests that spelling accuracy requires successful conversion from phoneme-to-grapheme (Stainthorp, Powel, & Stuart, 2013). Therefore, one would predict that spelling is related to orthographic and phonological knowledge, and that morphological awareness is associated to grammar and word repetition. This is because morphological awareness enables learners to understand word structure, that is, the function and rules that support word formation and grammar. For example, the word 'unhappy' consists of the root word 'happy' and prefix 'un' to form a word that shows the opposite meaning of 'happy'. This suggests that using the correct morpheme is important for the word to be meaningful and in correct form. Moreover, the researcher included word counts because one would predict that proficient writers would utilise more words, while less proficient writers would employ fewer words in their L2 writing. Therefore, the variables of number of words written, number of spelling and grammar errors, and the number of repeated words would provide further evidence of the relationships between morphology, orthography and phonology knowledge, and their associations with L2 writing outcomes.

When measuring spelling and grammar errors and repeated words, the total word count of each essay was considered. This is because it is likely that the number of errors will be higher as the word count increases. A student who writes one word may produce no spelling errors, but this does not necessarily represent the spelling ability of the student. However, a student who writes 1,000 words with no spelling errors clearly has good spelling skills. Therefore, the spelling, grammar, and repeated words measures were calculated based on the number of words written before a spelling or grammar error was produced, and the number of words written before a

word was repeated. Proportions were calculated by counting the number of words written (the first additional measure) and dividing this by the number of spelling errors, then the number of grammar errors, and finally, the number of repeated words. For example, the proportion of spelling errors for a student who wrote 297 words with 17 spelling errors would be 17.47. The same calculations were used to produce the proportion of grammar errors, and the proportion of repeated words. Table 5.10 provides the proportions of spelling and grammar errors and repeated words in the L2 essay.

As can be seen in Table 5.10, on average, students made one spelling error every 20 words that they wrote, while those who may be better writers made a spelling error roughly every 35 words produced. As for grammar errors, on average, students wrote approximately eight words before producing an error. Finally, for about every 13 words written, on average, students repeated a word.

Table 5.10. Descriptive statistics for number of words written, proportion of spelling errors, repeated words and grammar errors in the English essays.

Variable	ENow	*EPose	*EPorw	*EPoge
Min	208.00	12.24	9.00	4.54
Max	318.00	34.88	27.70	12.91
<i>M</i>	249.58	20.13	13.31	7.76
<i>SD</i>	26.57	4.35	3.74	1.60

Note. ENow = Number of Words Written; EPose = Proportion of Spelling Errors; EPorw = Proportion of Repeated Words; EPoge = Proportion of Grammar Errors.

*The total numbers were averaged by the total number of words written.

Table 5.11 shows first-order correlations between the L2 writing total scores, the assessments of vocabulary, grammar, morphology, orthography and phonology, and the number of words written and writing errors produced by the participants. The number of words written was found to correlate strongly with vocabulary knowledge, morphological awareness and orthographical knowledge; while phonological processing correlated moderately with the number of words written. The outcomes suggested that in order to write in English, apart from vocabulary knowledge, the Malay-English adult bilingual learners depend on morphological awareness, orthographical knowledge and phonological processing to produce a higher number of words in L2 writing. However, the analyses suggested that grammar knowledge correlated weakly with the number of words written, suggesting that the number of L2 words written was influenced less by L2 grammar knowledge. In addition, the total essay scores were strongly

associated with the number of words written—indicating that as the participants' number of written words increased, essay scores also increased.

In terms of spelling and grammar errors, weak to moderate correlations were found between the number of these two types of errors and measures of morphological awareness, orthographic knowledge and phonological processing, as well as measures of grammar and vocabulary knowledge. Overall, these correlations indicated that as the proportion of spelling and grammar errors in L2 writing increased, morphology, orthography and/or phonology scores, in addition to vocabulary knowledge, decreased. These moderate correlations suggested that better morphology, orthography and/or phonology skills should support better spelling and grammar accuracy in L2 essay writing, which would then be expected to support moderate improvements in essay quality.

Interestingly, the overall negative correlation observed between the proportion of repeated words and all the predictors and control variables used (i.e., grammar knowledge, vocabulary knowledge, morphology awareness, orthographic knowledge and phonology processing), suggested that as the proportion of repeated words increased, the scores from the predicted measures also increased. There was also a negative (albeit non-significant) correlation between the proportion of repeated words and overall essay scores. The latter correlations suggested a tendency for participants to repeat words in an effort to maintain coherence. Whatever the reason, the proportion of repeated words in L2 writing did not necessarily mean poorer writing performance for such Malay-English adult bilingual learners (these findings are further discussed in Tables 5.13 and 5.14).

One interesting finding was the weak correlations between spelling errors and both orthographic knowledge and phonological processing. One possible reason for these weak relationships might be the participants' learning of Malay as their first language. Malay is generally perceived as a relatively transparent orthographic, that is, grapheme and phoneme correspondences are more consistent than in English, which has a deep orthography and less reliable correspondences between the grapheme and phoneme (Lee et al., 2013). Those with good orthographic and phonological skills may show regularisation errors in English due to an overuse of grapheme-phoneme correspondence rules due to their L1 Malay experience. This argument is considered further in the discussion chapter.

Table 5.11. First-order correlations of L2 writing based on proportion of spelling errors, proportion of grammar errors and proportion of repeated words.

Measures	EESSAY	EGram	EVOCAB	EMorp	EOrth	EPhon	ENow	EPose	EPorw
EGram	.426**	—							
EVOCAB	.770**	.445**	—						
EMorp	.666**	.508**	.668**	—					
EOrth	.491**	.362**	.486**	.739**	—				
EPhon	.446**	.363**	.482**	.733**	.587**	—			
ENow	.719**	.249*	.636**	.674**	.613**	.375**	—		
EPose	.428**	.131	.418**	.319*	.061	.016	.499**	—	
EPorw	-.227*	-.529**	-.237*	-.567**	-.267*	-.572**	.012	.060	—
EPoge	.412**	-.082	.301*	.438**	.355**	.207*	.642**	.310*	.029

Note. EESSAY = Essay; EGram = Grammar; EVOCAB = Vocabulary; EMorp = Morphology; EOrth = Orthography; EPhon = Phonology; ENow = Number of Words Written; EPose = Proportion of Spelling Errors; EPorw = Proportion of Repeated Words; EPoge = Proportion of Grammar Errors.

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Table 5.12 reports the partial correlation between the same variables reported in Table 5.11, this time controlling for vocabulary and grammar knowledge. These findings indicated that after controlling for vocabulary and grammar knowledge, the number of words written correlated moderately with the total essay scores and morphological awareness and orthographical knowledge. However, in terms of phonological processing, the number of words written was found to be not significant. Additionally, when vocabulary and grammar knowledge were controlled, a negative correlation was observed between the proportion of spelling errors and measures of orthographical knowledge and phonological processing. These findings suggest that Malay-English adult bilinguals with good levels of phonological processing and orthographic knowledge, but normalised levels of vocabulary and grammar knowledge, had a tendency to produce more L2 spelling errors. This trend was not evident in the proportion of grammar errors, suggesting something specific about spelling errors. Finally, controlling for vocabulary and grammar knowledge did not eliminate the negative correlations between the proportion of repeated words and the measures of morphological and phonological skills; although the weak association with essay score was reduced to near zero. The inter-relationship between repeating words in L2 essays (hypothesised above to maintain coherence), vocabulary and morphological awareness will be discussed further in the discussion chapter.

Table 5.12. Partial correlation for L2 writing, controlling vocabulary and grammar.

Measures	EESAY	EMorp	EOrth	EPhon	ENow	EPose	EPorw
EMorp	.290*	—					
EOrth	.188	.621**	—				
EPhon	.108	.612**	.441**	—			
ENow	.478**	.474**	.469**	.112	—		
EPose	.195	.085	-.170	-.225*	.330**	—	
EPorw	-.001	-.497**	-.103	-.520**	.221*	.170	—
EPoge	.347**	.451**	.313*	.128	.620**	.202*	-.017

Note. EESAY = Essay; EMorp = Morphology; EOrth = Orthography; EPhon = Phonology; ENow = Number of Words Written; EPose = Proportion of Spelling Errors; EPorw = Proportion of Repeated Words; EPoge = Proportion of Grammar Errors.

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Table 5.13 presents the first-order correlations between the participants' L2 writing and the Jacobs et al. (1981) essay rubric categories of content, organisation, vocabulary, language use and mechanics. The findings suggest that the number of words written was strongly associated

with all five essay categories, whereas the proportion of spelling and grammar errors was only moderately associated with the five categories of the essay rubrics. In contrast, the proportion of repeated words produced was not significantly associated with the vocabulary and language categories.

The same relationships are reported in Table 5.14, this time as partial correlations controlling for grammar and vocabulary knowledge. These results indicated that the number of words written still moderately correlated with all five essay rubric categories and that grammar errors maintained small to moderate correlations with all categories. However, controlling for vocabulary and grammar reduced the relationships between the scores for the five categories and the proportion of spelling errors to weak, and in most cases, non-significant correlations. Finally, there were no significant correlations found between the proportion of repeated words and the five essay categories.

Table 5.13. First-order of correlations between L2 writing (the number of words written, the proportion of spelling errors, the proportion of grammar errors and the proportion of repeated words) and the Jacobs et al. (1981) essay rubric categories of content, organisation, vocabulary, language use and mechanics.

Measures	ENow	EPose	EPorw	EPoge
EECont	.706**	.422**	-.236*	.339**
EEOrga	.698**	.445**	-.253*	.323**
EEVocb	.678**	.430**	-.171	.455**
EELang	.679**	.371**	-.199	.407**
EEMech	.715**	.404**	-.239*	.461**

Note. ENow = Number of Words Written; EPose = Proportion of Spelling Errors; EPorw = Proportion of Repeated Words; EPoge = Proportion of Grammar Errors; EECont = Content; EEOrga = Organisation; EEVocb = Vocabulary; EELang = Language; EEMech = Mechanics.

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Table 5.14. Partial correlation between L2 writing (the number of words written, the proportion of spelling errors, the proportion of grammar errors and the proportion of repeated words) and the Jacobs et al. (1981) essay rubric categories of content, organisation, vocabulary, language use and mechanics.

Measures	ENow	EPose	EPorw	EPoge
EECont	.458**	.188	.046	.252*
EEOrga	.426**	.220*	-.013	.203*
EEVocb	.436**	.221*	.007	.380**
EELang	.433**	.130	.009	.330*
EEMech	.471**	.157	-.050	.416**

Note. ENow = Number of Words Written; EPose = Proportion of Spelling Errors; EPorw = Proportion of Repeated Words; EPoge = Proportion of Grammar Errors; EECont = Content; EEOrga = Organisation; EEVocb = Vocabulary; EELang = Language; EEMech = Mechanics.

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

5.7 Cross-Linguistic Transfer from L1 (Malay) to L2 (English) and L2 (English) to L1 (Malay) in Essay Writing

Cross-language analyses were used to examine evidence for linguistic transfer of morphological, orthographical and phonological skills from L1 to L2, or from L2 to L1, and whether such transfer may facilitate Malay-English adult bilingual learners' L2 writing. Therefore, the data collected from 12 Malay sub-tests were included in these analyses (see Section 5.2). Similarly to the earlier analyses of the English measures (see Table 5.5), the total scores of all the variables in the Malay measures were combined according to the skill areas that the measures assessed; for instance, the total scores for Malay Non-Word Task were added to the total scores for Malay Word-Form Task and Malay Relatedness Task in order to assess Malay morphological awareness.

As presented in Table 5.15, each of the Malay morphological, orthographical and phonological skills assessed moderately correlated with the total essay scores in English, whereas Malay grammar and vocabulary knowledge were only weakly correlated with L2 essay scores. Morphological, orthographical and phonological skills, and grammar knowledge in English were weakly correlated with the total Malay essay scores, in contrast to English vocabulary knowledge that was moderately correlated with L1 essay scores. The moderate correlation found between L1 skills and L2 writing can be associated to the participants' development in the basic underlying skills of their L1. Meanwhile, the reason for the moderate correlation of English vocabulary knowledge found in Malay essay writing could be due to the large number of Malay words borrowed from English. This has resulted in the introduction of seven new

syllable structures (see Table 3.5) in the Malay language based on loanwords from English, as some of the loanwords from English retained their original syllable structures. For example, the English word ‘drama’ is spelt the same in Malay.

Additional analyses of cross-language transfer suggested that once English grammar and vocabulary were controlled for in partial correlations, there were no significant relationships found between the Malay writing ability and English morphological, orthographical and phonological skills. However, even after controlling for grammar and vocabulary knowledge, there were significant partial correlations found between English writing ability and Malay morphological, orthographical and phonological skills. These analyses argue for Malay-English adult bilingual learners’ dependency on their basic L1 linguistic skills when writing in L2, but suggest much less of an influence of L2 linguistic skills when writing in L1.

Table 5.15. First-order of correlations between Malay and English measures in cross-language writing (Malay and English).

Malay measure	English essay	English measure	Malay essay
MGram	.391**	EGram	.252*
MVOCAB	.298*	EVOCAB	.411**
MMorp	.555**	EMorp	.330**
MOrth	.532**	EOrth	.296*
MPhon	.485**	EPhon	.256*

Note. MGram = Malay Grammar Task; MVOCAB = Malay Vocabulary Task; MMorp = Malay Morphological Task; MOrth = Malay Orthographic Task; MPhon = Malay Phonological Task; EGram = English Grammar Task; EVOCAB = English Vocabulary Task; EMorp = English Morphological Task; EOrth = English Orthographic Task; EPhon = English Phonological Task.

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Table 5.16. Partial correlations controlling for vocabulary and grammar between cross-language writing (Malay and English).

Malay measure	English essay	English measure	Malay essay
MMorp	.394**	EMorp	.043
MOrth	.362**	EOrth	.034
MPhon	.318*	EPhon	-.010

Note. MMorp = Malay Morphological Task; MOrth = Malay Orthographic Task; MPhon = Malay Phonological Task; EMorp = English Morphological Task; EOrth = English Orthographic Task; EPhon = English Phonological Task.

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

In order to further investigate the level at which the cross-linguistic transfer between L1 to L2 and L2 to L1 was predicted by morphological awareness, orthographic knowledge and phonological processing, regression analyses were conducted in which the participants' Malay and English total essay scores were used as the dependent variable. Tables 5.17 and 5.18 report the results of these regression analyses. For each, within-language vocabulary and grammar were included, followed by the cross-language equivalent measures. These were followed by the within-language measures of morphology, phonology and orthography, and finally, the cross-language measures of morphology, phonology and orthography. The rationale was to control for the vocabulary and grammar levels in both languages prior to testing for any additional increase in variability explained by the three basic language skills, and to also control for the influence of within-language variables prior to assessing any additional variability explained by the cross-language variables. Final beta scores were also considered to determine associations between each individual measure and the dependent variable controlling for all other measures in the regressions.

The results for both analyses indicated that most variability was explained when the within-language measures of vocabulary and grammar were included in the analyses. For both languages, the addition of vocabulary and grammar increased the variability in writing scores by 50 to 60%. However, no evidence of cross-language transfers of morphology, orthography and phonology skills. In addition to Malay grammar knowledge, English grammar knowledge produced significant beta score for the Malay writing proficiency analysis – though this produced a negative beta value.

As discussed in Chapter 3, with the influence of English grammar in the Malay language (e.g., copula *be* or adverbs) could have influenced the use of English grammar knowledge in Malay essay writing. Formally, in the Malay language, little emphasis has been placed on grammar, and with the recent influence and importance of English, certain aspects of grammar were introduced to the Malay language (Gomez & Reason, 2002). Even though English grammar has an influence on the Malay language, complex grammar rules in English do not apply to the Malay language (Abidin et al., 2016). For example, *Kucing itu adalah comel* [That cat is cute] *Kucing-kucing itu adalah comel* [Those cats is cute]. The example shows that unlike in English, in the Malay language, the verb remains the same even if the subject is plural.

Table 5.17. Results of regression analyses to investigate cross-linguistic transfer between English and Malay measures in English essay writing.

Variables	R^2	R^2 change	Sig. R^2 change	Final β
Age	.094	.094	$F = 6.097$	.260
Gender			$p = .003$	.083
English vocabulary	.681	.587	$F = 105.927$	.756
English grammar			$p < .000$	-.033
Malay vocabulary	.682	.000	$F = .062$	-.011
Malay grammar			$p = .940$	-.033
English morphology	.685	.003	$F = .324$	.127
English orthography			$p = .808$	.016
English phonology				.052
Malay morphology	.686	.002	$F = .198$	-.088
Malay orthography			$p = .898$	.041
Malay phonology				-.073

Table 5.18. Results of regression analyses to investigate cross-linguistic transfer between Malay and English measures in Malay essay writing.

Variable	R^2	R^2 change	Sig. R^2 change	Final β
Age	.057	.057	$F = 3.532$	.168
Gender			$p = .032$	.102
Malay vocabulary	.561	.504	$F = 65.952$	.658
Malay grammar			$p < .000$	.248
English vocabulary	.568	.007	$F = .925$	.082
English grammar			$p = .400$	-.158
Malay morphology	.570	.002	$F = 147$	-.053
Malay orthography			$p = .932$	.007
Malay phonology				.109
English morphology	.571	.001	$F = .082$	-.034
English orthography			$p = .969$	.028
English phonology				-.053

In order to further investigate L2 writing, the writing variables gathered from 60 randomly selected essay scripts from the original 120 English essay scripts were used in hierarchical regression analyses. Prior to marking, both the Malay and English measures were numbered according to the participant who took the Malay and English assessments (see Section 4.3), meaning that both English and Malay scripts for each participant could be selected. The four writing variables gathered from the 60 English essay were the number of words written, the proportion of spelling and grammar errors, and the proportion of repeated words. These

variables were used as the dependent variables. As presented in Table 5.10, the variables (i.e., spelling and grammar errors, and repeated words) were averaged by the total number of words written in the English essay in order to control for the length of the essay.

Table 5.19 reports the result of cross-language transfer in L2 writing between the Malay measures and the number of words written in the English essay. The final beta scores indicated that in addition to English morphology, orthography and phonology skills, the number of words written in English was significantly associated with Malay morphological awareness and orthographic knowledge – though Malay orthographical knowledge produced a negative beta value. Moreover, Malay vocabulary measure produced significant beta scores for the number of words written in English – though produced a negative beta value.

Meanwhile, Tables 5.20, 5.21 and 5.22 report the result of cross-language transfer between the Malay measures and L2 writing. Table 5.20 reports the results of cross-language transfer and proportion of spelling errors. The final beta scores indicated that measures of Malay morphological awareness and orthographic knowledge were significantly associated with the proportion of spelling errors in writing in addition to English morphology, orthography and phonology skills. Table 5.21 reports the results of cross-language transfer and proportion of grammar errors. The final beta scores indicated that the proportion of grammar errors was significantly associated with Malay morphology, orthography and phonology measures in addition to English morphological and phonological measures – though the all three variables produced a negative beta value. Table 5.22 reports the results of cross-language transfer and proportion of repeated words. The final beta scores indicated that in addition to English morphology, orthography and phonology skills, the proportion of repeated words in writing was significantly associated with Malay morphological awareness. Additionally, the Malay grammar measure produced a significant beta score for the proportion of spelling errors and repeated words, however, a negative beta value for the proportion of repeated words. Meanwhile the Malay vocabulary measure produced a significant beta score for the proportion of grammar errors.

Table 5.19. Results of regression analysis investigating cross-linguistic transfer in L2 writing between Malay measures and number of written words in the English essay.

Variable	R^2	R^2 change	Sig. R^2 change	Final β
Age	.117	.117	$F = 3.786$	.102
Gender			$p = .029$	-.003
English grammar	.451	.334	$F = 16.707$	-.107
English vocabulary			$p < .000$	.404
Malay grammar	.468	.017	$F = .850$	-.081
Malay vocabulary			$p = .433$	-.112
English morphology	.629	.161	$F = 7.239$	.479
English orthography			$p < .000$	.325
English phonology				-.249
Malay morphology	.635	.006	$F = .259$	.121
Malay orthography			$p = .854$	-.126
Malay phonology				-.054

Table 5.20. Results of regression analysis investigating cross-linguistic transfer between Malay measures and proportion of spelling errors in the English essay.

Variable	R^2	R^2 change	Sig. R^2 change	Final β
Age	.084	.084	$F = 2.598$	.069
Gender			$p = .083$	-.139
English grammar	.227	.144	$F = 5.114$	-.161
English vocabulary			$p = .009$	.236
Malay grammar	.241	.014	$F = .476$	.167
Malay vocabulary			$p = .624$	.042
English morphology	.377	.136	$F = 3.650$	.461
English orthography			$p = .019$	-.468
English phonology				-.585
Malay morphology	.438	.061	$F = 1.703$	.261
Malay orthography			$p = .179$	.357
Malay phonology				-.050

Table 5.21. Results of regression analysis investigating cross-linguistic transfer between Malay measures and proportion of grammar errors in the English essay.

Variable	R^2	R^2 change	Sig. R^2 change	Final β
Age	.096	.096	$F = 3.028$	.235
Gender			$p = .056$	-.082
English grammar	.229	.133	$F = 4.724$	-.432
English vocabulary			$p = .013$	.112
Malay grammar	.235	.007	$F = .226$	-.009
Malay vocabulary			$p = .798$	.118
English morphology	.408	.173	$F = 4.853$	.933
English orthography			$p = .005$	.274
English phonology				-.081
Malay morphology	.464	.056	$F = 1.646$	-.175
Malay orthography			$p = .192$	-.369
Malay phonology				-.150

Table 5.22. Results of regression analysis investigating cross-linguistic transfer between Malay measures and proportion of repeated words in the English essay.

Variable	R^2	R^2 change	Sig. R^2 change	Final β
Age	.050	.050	$F = 1.514$	-.040
Gender			$p = .229$	-.023
English grammar	.301	.250	$F = 9.833$	-.207
English vocabulary			$p < .000$	.325
Malay grammar	.366	.065	$F = 2.717$	-.251
Malay vocabulary			$p = .075$	-.053
English morphology	.606	.240	$F = 10.142$	-.641
English orthography			$p < .000$	.359
English phonology				-.389
Malay morphology	.609	.004	$F = .154$	.123
Malay orthography			$p = .927$	-.015
Malay phonology				.056

5.8 Conclusion

In summary, this chapter discussed and presented the findings that this study intended to seek. The findings in terms of essay writing, particularly for L2 essay writing, suggests that the morphology, orthography and phonology measures did not predict L2 writing ability in this context. This suggests that when a Malay-English adult bilingual student reaches a certain level of learning English as L2, vocabulary knowledge plays a significant role in L2 essay writing and also influences the quality of their L2 writing performance. In order to further explore the

relationship of the basic underlying skills and L2 writing ability, 60 essay scripts were randomly selected and analysed for L2 performance. The analyses suggested that in order to write in L2, more than one linguistic feature was involved, suggesting that L2 writing ability involves more than vocabulary knowledge alone.

In terms of Malay and English writing, the cross-language transfer of morphology, orthography and phonology measures were found not significant. This indicates that once Malay-English adult bilingual learners have developed their basic underlying skills, they do not depend on their basic underlying skills of morphology, orthography and phonology to facilitate their L1 and L2 writing at later stages of learning. Therefore, the important skill that Malay-English adult bilingual learners require to perform in language is vocabulary knowledge. However, the English grammar measure was significantly associated with Malay writing – although produced a negative beta value. This suggests that English grammar knowledge has an influence on Malay writing. Furthermore, the analyses of cross-language transfer and L2 writing suggests that the Malay morphology, orthography and phonology measures were significantly associated with the number of words written, the proportion of spelling and grammar errors and repeated words, in addition to English morphology, orthography and phonology skills. In addition, the findings in terms of cross-language transfer and L2 writing suggested that L1 orthographical knowledge was significantly associated with L2 writing performance in terms of the number of words written, the proportion of spelling and grammar errors – though produced a negative beta value in the number of words written and the proportion of grammar errors. This suggests that when two languages share the same writing script such as alphabetical, the Malay orthographical skills can influence Malay-English adult bilingual learners' L2 writing ability. However, this also suggests that Malay-English adult bilingual learners should be able to distinguish the differences and similarities between their L1 and L2, therefore, they could avoid making errors in L2 writing. The following chapter further discusses and supports the overall findings of this study with a related literature review, outlines theoretical and pedagogical implications and offers directions for future research in the field of ESL/EFL writing ability.

CHAPTER 6

General Discussion

6.1 Introduction

In this chapter the overall study concludes by briefly presenting an overview of the findings, discusses the theoretical and pedagogical implications connecting the findings to the literature, and offers possible justifications for the outcomes perceived from the findings. The chapter then details limitations of the study and provides suggestions for future research.

6.2 Overview of the Findings

The main objective of this study was to investigate L2 writing among Malay-English adult bilingual learners in a matriculation centre in Peninsular Malaysia. To achieve this objective, the study examined the relationship between English essay scores and the English measures that were developed and adopted for this study. This was done to determine the predictors of ESL students' English writing and inform theory and practice aimed at facilitating such students' English writing performance. A total of 12 sub-tests for English were administered to 120 Malay-English bilingual learners aged from 17 to 19 years, enrolled in a public matriculation centre in Peninsular Malaysia.

Students' writing was assessed using the Jacobs et al. (1981) rubric. Relationships between scores on this scale and the three main variables of interest: morphological awareness, orthographic knowledge and phonological processing, were non-significant, suggesting that the three variables had relatively minor influences on the scale scores. In contrast, the relationship between the scale scores and vocabulary was much larger than for the three main variables. When morphological awareness, orthographic knowledge, phonological processing and grammar knowledge were included in the regression analyses, only vocabulary showed a significant effect. Similar findings were noted for each of the five elements (content, organisation, vocabulary, language use and mechanics) comprising the Jacobs et al. (1981) rubric. Overall, when compared with vocabulary, the three main variables showed little influence on writing scores.

The findings from the first objective of this study reported that when Malay-English adult bilingual learners reach a certain level of experience in L2 learning, vocabulary knowledge becomes the only unique predictor of L2 writing quality, whereas the basic underlying skills

of grammar, morphology, orthography and phonology seem less important when writing in their L2. These findings are similar to those of Solati-Dehkordi and Salehi (2016) and Wong (2012), who reported that advanced vocabulary knowledge contributed to higher L2 writing quality, and is also a commonly known factor that contributes to L2 writing performance among ESL/EFL learners. Nonetheless, in L2 writing, vocabulary knowledge plays an important role in determining the quality of L2 written work (Walters & Wolf, 1996). Therefore, Malay-English adult bilingual learners require advanced vocabulary knowledge in order to perform better in L2 writing.

In addition to the above analyses of writing quality based on the Jacobs et al. (1981) rubric, 60 essay scripts were randomly selected and assessed for the total number of words written per essay, the proportion of spelling and grammar errors, and proportion of repeated words (excluding pronouns, articles and auxiliary verbs). Prior to the analyses, spelling and grammar errors and repeated words were averaged by the total number of words written in order to control for the length of essay. As reported in Table 5.11, even after controlling for grammar and vocabulary knowledge, the number of words written moderately correlated with morphological awareness and orthographical knowledge. This suggested that the ability to write in L2 among Malay-English adult bilingual learners is not solely predicted by vocabulary knowledge, but also morphological and orthographical skills. Next, the proportion of spelling and grammar errors were influenced by morphological awareness, orthographical knowledge and phonological processing. This suggested that when rules are overused, errors will result. For example, when an irregular word was encountered, the overuse of phonological processing (and grapheme-to-phoneme correspondence) might result in regularisation errors. Lastly, the proportion of repeated words in an essay can be associated with the participant's lack of vocabulary knowledge, as the student used the same words to convey the message. The additional analyses supported that writing in L2 involves other basic underlying linguistic aspects that are essential to perform in L2 writing.

The second objective of this study was to examine any evidence of cross-language transfer between Malay and English that might support writing performance. The second part of the analyses was performed to further explore the role of the three linguistics features across languages in supporting their L2 writing. As presented in Tables 5.17 and 5.18, analyses of cross-language transfer suggested non-significant relationships between morphological awareness, orthographic knowledge and phonological processing supporting writing ability across languages. The analyses indicated that writing ability within languages was predicted

by vocabulary knowledge. However, the analyses suggested that L2 grammar knowledge influences L1 writing skills.

The final phase of the analyses was to examine cross-language transfer in the participants' L2 surface-feature writing performance, that is, the number of words written and assessment of errors and repetitions based on the 60 randomly selected English essay scripts. The overall analyses suggested that in addition to L2 skills, L1 morphological, orthographical and phonological measures predicted L2 writing in terms of the number of words written, proportion of spelling and grammar errors and repeated words. Malay orthographical knowledge and L2 grammar errors were both associated with L2 spelling errors, but in opposite directions. The following sections discuss the outcomes of this thesis in terms of theoretical and practical perspectives.

6.3 Implications

The implications of the findings derived from this study will first be discussed in terms of theoretical approaches that have been developed by L2 writing researchers, then in terms of suggestions of pedagogical issues, primarily in the field of L2 writing.

6.3.1 Theoretical Implications of L2 Writing

In this study, students' essays were scored based on the Jacobs et al. (1981) rubric. This rubric has been widely used (Haswell, 2005) for analytic scoring (Hamp-Lyons, 1991) and has been argued to be more reliable than holistic scoring (Knoch, 2009). Hamp-Lyons (1990) argues that it is "the best-known scoring procedure for ESL writing at the present time" (p. 78). In addition, researchers have proposed that the rationale to implement the rubric for scoring L2 essays in comparison to holistic scoring is because analytic scoring can provide clearer scales of written performance (Ghalib & Al-Hattami, 2015; Weigle, 2002). Based on the argument presented by ESL writing scholars and the nature of this study which took place in the ESL context, the rubric was chosen for essay scoring. Moreover, a high level of inter-rater reliability was produced in this study via the analyses of the writing scores assigned by two assessors.

6.3.1.1 Vocabulary Knowledge in L2 Writing

Findings from the main research objective suggested that vocabulary was the largest predictor of L2 writing quality among Malay-English adult bilingual learners. The current findings are comparable to researchers who affirmed that vocabulary knowledge is the best predictor of L2/FL writing quality (Laufer & Goldstein 2004; Leki & Carson, 1994; Schoonen et al., 2011;

Wang, 2014). Having advanced vocabulary knowledge improves the quality of an L2 essay (Coxhead, 2012; Coxhead & Byrd, 2007; Gardner, 2007; Hemphill & Tiunan, 2008; Milton, 2013; Park, 2012). As such, advanced vocabulary knowledge will likely contribute to the written quality of an L2/FL essay, and therefore the academic performance of students who are mainly assessed via written assignment (Al-Gharabally, 2015; Pamela, 1991). This statement is in line with other researchers who have associated the quality of an L2 written text to advanced vocabulary knowledge (Engber, 1995; Grant & Ginther, 2000; Johnson, Acevedo, & Mercado, 2016) which is then associated with ESL/EFL learners' academic success (Alsager & Milton, 2016; Masrai & Milton, 2018; Naeimi, Soltani, & Damavand, 2013; Sedita, 2005; White, Graves, & Slater, 1990; Williams, 2005). Therefore, Malay-English adult bilingual learners' quality of L2 writing as assessed by the Jacobs et al. (1981) rubric, is determined to some extent by their level of vocabulary knowledge.

However, this association between L2 writing and vocabulary knowledge could have been influenced by the Jacobs et al. (1981) rubric that places emphasis on vocabulary knowledge rather than other aspects involved in writing ability. The practice of effective writing requires vocabulary, grammar, morphology, orthography and phonology knowledge (Grabe & Kaplan, 1996; Schoonen et al., 2003; Trapman, van Gelderen, van Schooten, & Hulstijn, 2018). These features are essential to support the multidimensional processes involved in writing (Kormos, 2012; Schoonen et al., 2011). As observed in this study, vocabulary measure was strongly associated with all five categories of the rubric, which suggested that the main importance given is vocabulary knowledge.

6.3.1.2 Grammar Knowledge in L2 Writing

Moreover, in the field of SLA, the importance of grammar knowledge in L2 writing has always been debatable. Some scholars have highlighted the importance of grammar in L2 writing (Mart, 2014), while others oppose this concept (Krashen & Terrell, 1983). In this study, grammar measures were found least predicting of the quality of L2 writing. This suggested that less emphasis is placed on grammar in comparison to vocabulary knowledge. This came as a surprise, because previous studies in the Malaysian context have reported that many Malaysian students face difficulties when forming grammatically correct sentences in their L2 writing (Darus & Subramaniam, 2009; Khan, 2008; Maros et al., 2007; Vahdatinejad, 2008; Vethamaiccam & Ganapathy, 2017; Zainal, 1990). However, less importance is given to grammar knowledge and this has been further argued by Shamsuzzaman (2015), who stated

that “even [the] syntactic and mechanical accuracy of a piece of writing fails partially or completely to convey an intended message until it is appropriately worded” (p. 33) and Wilkins (1972) who advocated that “without grammar very little can be conveyed, without vocabulary nothing can be conveyed” (p. 111). Therefore, with their arguments and outcomes of the current study, it is suggested that when L2 learners use the right choice of words in their L2 writing, the assessor could understand the intended meaning, although the sentence structures could be grammatically inaccurate. Sentences are formed by words—vocabulary, while grammar arranges the word order to form sentences. This argument is further supported by this study, as the number of words written in L2 was least predicted by grammar measure. Therefore, the current findings would find favour among researchers who advocate for the importance of vocabulary rather than grammar in L2 writing ability. Alternatively, the current findings can be associated to the rubric used in this study. As discussed, importance was given to vocabulary knowledge, therefore, grammar knowledge was given less importance in the rubric. Interestingly, the language use section was mainly developed to evaluate grammar knowledge; however, vocabulary measure was found to be strongly associated in the language use section compared to grammar measure. These arguments further highlight that the rubrics were vocabulary orientated.

6.3.1.3 Basic Underlying Skills: Morphology, Orthography and Phonology in L2 Writing

As detailed in Chapter 1, writing requires coordination of both linguistic and cognitive aspects to tackle the multidimensional processes involved in writing. Therefore, this study included the basic underlying skills of morphology, orthography and phonology to understand the relationship of these skills when facilitating L2 writing ability. In addition to vocabulary and grammar knowledge in L2 writing, studies report that basic underlying skills of morphology, orthography and phonology also play important roles in L2 writing. This is because English is a morphophonemic language (Venezky, 1970) that requires morphological awareness to connect the form and meaning of a word. As Kuo and Anderson (2006) note, this is “the ability to reflect on and manipulate morphemes and word formation rules in a language” (p. 161) and orthography knowledge and phonological processing to spell a word “writing fluency requires writers [to] produce correct spellings of words automatically” (Ocal & Ehri, 2017, p. 59) while “grapheme-to-phoneme associations are important during the process of written language acquisition” (Landgraf et al., 2012, p. 130).

After controlling for vocabulary and grammar measures, these three measures were found less important for L2 writing. This study is in support of Smith's (2011) study among young ESL Canadian students which documented that linguistic measures did not predict L2 writing skill. This suggested that ESL students would depend less on their basic underlying skills when English was learned as L2, and as adult bilingual learners one would assume that with exposure and learning English as L2 in the Malaysian context, that the Malay students would have mastered basic underlying linguistic skills. As such, at tertiary level the important aspect required by adult ESL learners in L2 writing is vocabulary knowledge. However, this argument needs further research because of the preference being placed on vocabulary knowledge by rubric, rather than morphological awareness, orthographic knowledge and phonological processing which are also considered important for L2 writing.

6.3.1.4 Number of Words Written in L2 Writing

In order to further understand whether L2 writing was mainly predicted by vocabulary measures, the number of words written was counted from the 60 randomly selected essays. The findings suggested that the number of words written in an L2 essay was predicted by English morphological awareness and orthographical knowledge measures. The analyses suggested that the Malay-English adult bilingual learners required basic underlying skills of English morphology and orthography to generate words for their L2 essays. As discussed in Chapter 2, morphological awareness is the ability to recognise meanings of words (Carlisle & Stone, 2003) and based on the meaning to form new words (Yang et al., 2017), meanwhile, orthographic knowledge is the capability to recognise suitable and unsuitable grapheme-to-phoneme relationships (Treiman, 1993). These two linguistic aspects are fundamental skills that L2 learners require, as each of these underlying skills are found to facilitate the process of writing.

Furthermore, the number of words written was found to be moderately correlated with the total essay scores even after controlling for vocabulary and grammar measures. This suggested that Malay students who were able to produce more words in their L2 essay could perform better in their L2 writing. Moreover, the number of words written moderately correlated with all five categories in the rubric, which suggested that by writing more words, the better the chances are of obtaining good scores on the rubric. This further suggests that the rubric places importance in terms of vocabulary knowledge, as the number of words written was found to be strongly associated with vocabulary measure. The following sections discuss the proportion of spelling

and grammar errors and the proportion of repeated words. The term ‘proportion’ is used because prior to the analyses, the spelling and grammar errors and number of repeated words were averaged by the number of words writer in order to control for the length of essay (see Table 5.10 for details).

6.3.1.5 Proportion of Spelling Errors in L2 Writing

As discussed in Chapter 2, spelling plays an important role in writing and requires orthographic knowledge and phonological processing. Orthography provides the rules by which phonological units are transformed into graphic units (Perfetti, 1997). Therefore, in alphabetic writing systems, it has been argued that orthographic knowledge and phonological processing are important to support the process of grapheme-to-phoneme and spelling (Park, 2011). In this study, the correlations between the proportion of spelling errors and orthographic and phonological measures were found to be small and non-significant (or negative when vocabulary levels were controlled for). This may suggest that even Malay students who have a good foundation of orthographic knowledge and phonological processing may still have a tendency to make regular spelling errors in English. This may be associated with the overuse of phoneme-to-grapheme rules that may have been learnt early in acquisition and not modified by experience using English. As discussed previously, English has irregular grapheme-to-phoneme correspondences, and overgeneralisation of these can result in spelling errors. This means that in order to spell words, a learner will need to have the knowledge to link between spoken and written forms at a larger grain size (i.e., the amount of the word linked between spoken and written forms) than the individual phoneme (Ziegler & Goswami, 2005). Therefore, the lack of appropriate use of different grain sizes in the writing process may be one cause of spelling errors in English writing by Malaysian adult students, even if the students can identify sounds and spelling mistakes in the orthographic and phonological tasks and this partial knowledge may lead to reasonable performance in tasks, but increased errors when writing. Further research focusing on different types of spelling errors may be worthwhile to support educational practices.

Another possible reason for Malay students producing spelling errors in their L2 writing could be associated with the Malaysian English pronunciation (see further discussion of this point in Section 3.9). When learning English writing, Malaysian students are taught to use standard British English, but this is not the case when being taught spoken English (Pillai & Ong, 2018). This is because of the variety of spoken English in Malaysia (Pillai et al., 2010). Therefore,

spelling errors in an essay could have been because of the lack of vowel contrast occurring in their spoken form of English, and/or the realisations of many diphthongs as monophthongs in spoken English in Malaysia (Pillai et al., 2010). In addition, these forms of errors can occur when one is writing under stress, which has been reported even amongst skilled writers (Wing & Baddeley, 1980). It may be that the writer reverts to more basic spelling rules which are determined by pronunciation, rather than more complex rules which would be supported by knowledge of complex orthographic patterns and morphology.

6.3.1.6 Proportion of Grammar Errors in L2 Writing

In addition, previous studies have documented the close relationship between grammar knowledge and morphological awareness and orthographical knowledge (Seymour, 2003; Uibu & Liiver, 2015). Similarly, this study observed significant associations between morphological awareness and orthographical knowledge and grammar knowledge. This suggests that these skills influence grammar. One aspect of writing is forming correct words with the right affixes to indicate change in tense. As discussed in the literature, morphological awareness is not only important when forming words, but also important when understanding the meaning of words in sentences and paragraphs (Kuo & Anderson, 2006; Nagy, 2007). Meanwhile, orthography knowledge supports the grapheme-to-phoneme relationship which is not only important to recognise the letter patterns within language (O'Brien et al., 2011), but also in learning grammar (Arciuli & Monaghan, 2009). Therefore, inadequate competency in morphology and orthography skills may result in Malay students making grammar errors that could influence the quality of an L2 essay. This argument can be associated with the overuse of L2 rules when indicating changes in tense or other parts of speech.

In addition, the proportion of grammar errors influences the total essay score in terms of the Jacobs et al. (1981) rubric even after controlling for vocabulary and grammar measures. Although earlier this study reported that vocabulary knowledge mainly influences L2 writing ability and suggested that grammar knowledge was given less importance in terms of the rubric, further analyses on the proportion of grammar errors suggests that on a surface level, the rubric could have indirectly placed importance on grammar. Undoubtedly, the findings from the current study supports that lexical richness does increase the quality of an L2 essay; however, to form ideas in logical and chronological order, grammar knowledge plays an important role. This is because incorrect use of tense or disagreement with SVO in English will lead to misinterpretation of the essay's sequence.

6.3.1.7 Proportion of Repeated Words in L2 Writing

Before discussing the analyses of the proportion of repeated words in the L2 essays, it is important to define “repetition”. The term repetition means the use of words, phrases or lexical items connected to ones used earlier in the text (Chanawangsa, 1986; Halliday & Hasan 1976; Liu, 2000). In this study, the proportion of repeated words was associated to cohesion and coherence. Studies that analysed cohesion and coherence in the context of ESL/EFL writing reported that irregularities of cohesion are largely related to inadequate linguistic competence (Al-Jarf, 2001). As such, the lack of cohesion in L2 writing (Mojica, 2006) could affect the written quality of an essay (Brisk, 2011; Dastjerdi & Samian, 2011). In a similar vein, studies that observed cohesion in L2 essays demonstrated that ESL students with limited vocabulary knowledge often end up repeating the same words in their essays (Adas & Bakir, 2013). In the current research, vocabulary knowledge was mainly associated with L2 writing quality, therefore, to maintain cohesion and coherence, participants with a limited choice of vocabulary could have repeated the same words in their essay. The current findings support the findings of Mojica (2010), that word counts and the number of sentences produced by EFL students are correlated to poor linguistic competency (vocabulary and grammar).

Moreover, this argument can also be associated to a number of factors that could have contributed to their limited vocabulary knowledge, for example, lack of reading, the complex nature of L2, lack of exposure to L2 learning/teaching or the participant’s content knowledge of the given topic. As Read (2000) argued “the validity of any writing measure is in the nature of the task that the learners are given” (p. 198). Therefore, this situation could have affected the use of words (vocabulary) in the essay (Nadarajan, 2011), particularly among learners with poor vocabulary knowledge in L2. However, in this study the proportion of repeated words did not indicate poor L2 writing quality, but were used to maintain the level of cohesion and coherence in their L2 essay. This is because the Jacobs et al. (1981) rubric was not developed to penalise for repeating words, rather accepting the repeated words to sustain the cohesion and coherence. However, this argument is debatable as the participants’ essay scores were not categorised according to their level of proficiency (beginner, intermediate or advanced) to generalise whether participants with poor/basic vocabulary knowledge had the tendency to repeat words in their L2 essay writing, or that Malay students in general have a tendency to repeat words in their essays.

6.3.2 Theoretical Implication of Cross-Language Transfer in Writing

As detailed in the literature, in the field of cross-language transfer, researchers have argued that bilingual learners have an advantage in the development of morphology, orthography and phonology aspects compared to their monolingual counterparts to support their language learning and performance. This can be seen in O'Mally and Chamot's (1995) statement "using what is already known about language to assist comprehension or production" (p. 199). Studies have found that bilingual students with a strong foundation in L1 morphology, orthography and phonology skills (Ringborn, 1987) are able to transfer these linguistic aspects to L2 (Jarvis & Pavlenko, 2008) to support their L2 learning (Nair, 2013; Nunes & Bryant, 2009).

The findings from the second objective suggested that there was no evidence of transfer across languages in terms of morphology, orthography and phonology aspects supporting either L1 and/or L2 writing, while the main predictor within language was vocabulary measure. The current findings were in contrast to Schoonen et al. (2011) study among young Dutch students, which reported strong correlations from L1 linguistic measures to support EFL writing. As reported in this study, ESL learners do not depend on basic underlying skills to produce quality L2 essays, because ESL students receive more exposure to English compared to EFL students as reported by Schoonen et al. (2011).

However, this study observed that L2 grammar knowledge slightly negatively influenced L1 writing performance. This suggested that with the influence of English grammar in the Malay language, Malay students' L1 essays could have been influenced by L2 grammar rules and most likely led to grammar errors in their L1 writing. As described in Chapter 3, the Malay language does not have complex grammar rules like English. In fact, even with the influence of English in the Malay language (Gomez & Reason, 2002), Malay grammar rules are still minimal and, in most cases, subject-verb-agreement rules are not applicable. For example, in English, when the subject is in a singular form (e.g., cat), the verb should be in singular form (e.g., chases, as in: The cat chases the sparrow), likewise, when the subject is in plural form (e.g., cats) the verb should be in a plural form (e.g., chase, as in: The cats chase the sparrow). However, in the Malay language, subject-verb-agreement rules are not applicable (Hamid & Wijayasuria, 1998; Nayan & Jusoff, 2009). For example, whether the subject is singular or plural, the verb (as underlined) remains the same, *Dia pergi ke sekolah*. [He/She go to school] and *Mereka pergi ke sekolah*. [They go to school]. The assumption here is that if the Malay students were overly using L2 grammar rules in their L1 writing, this could have influenced

their L1 writing performance. However, this argument needs further research to support the current arguments because this study only observed L2 grammar errors. Therefore, future studies could analyse L1 and L2 grammar errors to further investigate whether Malay students who were more fluent in L2 were influenced by their L2 grammar knowledge in their L1 writing performance.

6.3.2.1 Cross-Language Transfer in the Number of Words Written

As discussed, morphological awareness plays a significant role in recognising and remembering words (Clark, 2017). In this study, as Malay is an agglutinative language, new words are created by adding inflectional morphemes to root words (Knowleds & Mohd Don, 2006; Lee et al., 2013; Ranaivo-Malançon, 2004), in order to bring new meaning to the root word (Azmi et al., 2016). This can be seen particularly in the numbers of loan words from English that are found in the Malay lexicon which introduced seven new syllables to the Malay language. Some loan words from English retained their original syllabus structures while others changed the L2 syllabus structure in order to match the Malay syllabus structure (see Section 3.6). For example, the English word [species] is spelt the same in Malay, while others changed spelling, for example, the English word [clinic], is spelt *klinik* in Malay. These similarities were largely influenced by English orthographic structure (Chiew, 1999). Considering this, L1 morphological awareness is important in order to retrieve words from the lexicon and increases the learner's writing ability by allowing the writer to choose the right words to convey their semantic intent (McCutchen & Stull, 2015). Therefore, the findings suggested that Malay students who have a strong foundation in L1 morphological awareness can support word formation in L2. However, for those with poor L1 orthography knowledge, their L1 morphological awareness was able to support their L2 word formation in L2 writing because morphological awareness has also been reported to support spelling (Siegel, 2008).

6.3.2.2 Cross-Language Transfer in the Proportion of Spelling Errors

The findings of cross-language transfer in terms of the proportion of spelling errors suggested that apart from their basic underlying skills of L2 morphology, orthography and phonology, L1 morphological awareness and orthographical knowledge were also found to support their L2 spelling. Studies have found that younger learners have the ability to receive and store morphologically complex words (Anglin, 1993; Nagy & Anderson, 1984), and when these skills are established they can be applied at an older age (Sandra, 1994). Therefore, when

students achieve morphological awareness in their L1, it enables them to spell words—in this case, English words (Silva & Martins-Reis, 2017).

In addition, the L1 orthographical knowledge in L2 spelling can be further argued by the earlier exposure to the teaching of L1 orthography. In relation to early exposure to L1 orthography knowledge in the Malaysian education system (especially in public schools), students are taught the basic underlying skills of Malay morphology, orthography and phonology as early as seven years of age. The strategy used to teach orthography knowledge begins by teaching students to pronounce the consonant sound together with the vowel in order to form a syllable, and then combining syllables to form a word (see Section 3.4 for details). This method can enable learners to establish orthographic representation, which in turn can assist learners to spell correctly (Stainthorp et al., 2013). Since orthography and phonology are closely related, this approach of teaching at an early age of language development and learning could assist Malay students to decode English words, as early spelling knowledge is associated with orthography and phonology skills (Dixon, et al., 2010).

In Gomez and Reason's (2002) study among young Malay-English bilingual learners, they found that young Malay learners transfer their L1 phonological processing skills to L2, despite Malay being a relatively transparent language. This argument is further supported by Seymour et al. (2003) and Katz and Frost (1992), who state that learners from regular orthography backgrounds have an advantage in phonological processing skills compared to those from irregular orthography backgrounds such as English speakers. In addition, studies by Andreous and Segklia (2017) and Ziegler and Goswami (2005) reported that L1 learners of shallow orthographies are largely dependent on their L1 grapheme-to-phoneme decoding skills where L2 spelling is concerned, although the L2 is different orthographically. The notion that L1 orthography supports L2 spelling over and above L2 orthography knowledge is illustrated in this study. This further supports the reason for Malay students to transfer their L1 grapheme-to-phoneme decoding skills to L2 spelling, because English is a less transparent language that requires both orthography and phonology skills. In fact, such close relationships between orthographic knowledge and phonological processing which was observed in this study have also been documented by a number of researchers, primarily among younger learners (see Best, 1995; Detey & Nespoulous, 2008; Flege, 1995; Sun-Alperin, 2007; Sun-Alperin & Wang, 2011) suggesting the importance of L1 orthography in facilitating L2 pronunciation and/or spelling. Therefore, findings from the current study argue that when two languages share the

same writing script (alphabetic in the case of Malay and English), the former would be able to facilitate the latter in L2 spelling.

In addition, a study by Young-Scholten and Archibald (2000) revealed that L2 adult students depend on L1 grapheme-to-phoneme relationships to produce sounds in L2. This further supports the current study that Malay-English adult bilingual learners L2 spelling is influenced by their L1 orthographic knowledge. Therefore, Malay students who depended on their L1 phoneme-to-grapheme decoding to spell L2 words, were able to reduce the number of spelling errors made in their L2 writing. As such, the findings from this study suggested that when two languages share the same alphabetic scripts, the earlier exposure to L1 orthography can support L2 spelling even though Malay and English vary in terms of orthography complexity.

6.3.2.3 Cross-Language Transfer in the Proportion of Grammar Errors

The cross-language transfer in terms of the proportion of grammar errors suggested negative transfer of the basic underlying skills of L1 morphology, orthography and phonology in L2 writing. The findings of this study can be interpreted by stating that Malay students who overgeneralise L1 rules in L2 grammar will produce errors. Studies have reported that Malay students make grammar errors in terms of tense and other parts of speech (Maros et al., 2007). As such, Malaysian academics have argued that the errors are associated with the linguistic and structural differences between Malay and English languages (Normazidah et al., 2012; Wong, 2012). Therefore, the current findings can be associated to the differences between the two languages that could have resulted in L2 grammar errors. This argument can be further supported by observing the nature of the Malay language—agglutinative, therefore, the Malay language uses polysyllabic or multisyllabic words to express grammar and to form new words (Knowleds & Mohd Don, 2006; Lee et al., 2013; Ranaivo-Malançon, 2004). In addition, the use of tense and other parts of speech are not compulsory and/or do not exist. English on the other hand, requires far more complex grammar rules, which in most cases changes the spelling to indicate tense. Therefore, Malay students who were unable to distinguish the differences and similarities between the Malay and English basic underlying linguistics rules or poor L2 background will have a tendency to produce grammar errors in L2 writing (see Table 6.1. Types of L2 errors influenced by L1 interferences, for examples).

This current finding found favour with Lado's (1957) views that structural differences between L1 and L2 could cause difficulties for learning the TL. Therefore, basic underlying skills are required to be established in L2 learning/teaching in order to promote L2 learners' language

development, because linguistic competency is closely associated with the L2/FL writing process (Manchon, 2009). This argument needs further investigation into whether grammar errors are mainly caused by differences in linguistic rules or a poor linguistics background. This is because studies have argued that proficient L1 writers are able to transfer their skills to their L2 writing, while for the less proficient writers in L1, this could hinder their L2 writing (Myles, 2002). However, in her study, Arfah (1988) discovered that regardless of the level of L1 proficiency, errors associated to L1 transfers were found among Malay ESL students' L2 essays. Her findings were further supported by other researchers in Malaysia that the errors, especially in grammar, were mainly caused by L1 interferences (e.g., Hamid & Wijayasuria, 1998; Hughes & Heah, 1990; Nayan & Jusoff, 2009; Shuib, 1991). Therefore, studies that investigated the cross-language transfer of L1 in L2 writing in terms of grammar knowledge were still vague about the actual degree of transfer that takes place (van Weijen et al., 2009; Wolfersberger 2003), especially among the less proficient students.

6.3.2.4 Cross-Language Transfer in the Proportion of Repeated Words

In terms of the proportion of repeated words in L2 writing, Malay students with L1 morphological influence repeated words in their L2 essay. As Malay is an agglutinative language, affixes are used to change the meaning of a root word, for example, the verb *uduk* [sit], when added to the prefix *pen-*, becomes *penduduk* [population]. The Malay language uses affixation, reduplication and compounding to indicate changes when forming new words (see Section 3.7 for details). Therefore, the current findings can be argued by stating that Malay students who have been influenced by the L1 morphology tend to repeat words in their L2 essay because of their limited lexical competence in L2 linguistic aspects. As such, this could limit the development of L2 vocabulary.

6.4 Practical Perspective

Based on the findings from this study, suggestions are made to further improve the practical perspectives of a number of aspects. The contributions of this study are in line with Malaysia's aspiration to become an educational hub in the Southeast Asian region by 2020. Therefore, one aspect being proposed in the *Malaysian National Education Blueprint* is to raise the standard of English proficiency and promote bilingualism among Malaysian students. Moreover, these practical suggestions are not only limited to the Malaysian context, but also to students, educators, curriculum designers and material developers in countries where English is taught as L2/FL.

6.4.1 Vocabulary Knowledge

The findings from this study suggested that L2 writing quality is mainly determined by vocabulary knowledge. In previous literature, the importance of vocabulary knowledge associated to L2 writing has been well-established. Thus, it is important to give attention to vocabulary knowledge, mainly in the field of L2 writing (Laufer, 1998; Laufer & Nation, 1995) since quality of the students' writing depends on vocabulary knowledge (Leki & Carson, 1994; Milton, 2013; Park, 2012). As Alsager and Milton (2016) concluded, in order to be equipped for L2 learning, it is necessary for L2 learners to establish their vocabulary knowledge which will be beneficial for their academic success. However, the current practice in L2 writing (mainly at tertiary level), does not place much emphasis on vocabulary teaching. As argued in this study, the level of vocabulary knowledge enables ESL students to produce quality writing which could influence their assessor when scoring their written assignments. Therefore, teaching students the methods or strategies to master vocabulary will be beneficial in learning L2 at a higher level of learning. This will allow L2 learners to write better quality L2 essays and assignments.

6.4.2 Coherence

In addition, this study also argued that repeated words in their L2 essay can be associated with poor linguistic ability, which may have led to poor vocabulary knowledge. Studies have documented that the reasons for the limited choice of lexical items could be related to the lack of reading; however, it is also important to have a closer look at vocabulary teaching and learning in Malaysian ESL classrooms. Surveys that took place in Malaysian ESL classrooms have reported that vocabulary activities were rated four out of nine by teachers (Hassan & Fauzee, 2002; Muhamad & Kiely, 2018) and students ranked vocabulary exercises as their least favourite (Seng, 2004), to which Kaur, Othman and Abdullah (2017) concluded that "students are in a state of vocabulary deficit in the language class" (p. 92). In conjunction with a lack of vocabulary teaching and learning, several studies (Ahmadi, Ismail, & Abdullah, 2012; Lourdunathan & Menon 2005; Noor & Amir, 2011; Pillai, 2004; Ramachandran & Abdul Rahim, 2004; Zakaria, 2005) that took place in Malaysian secondary and tertiary contexts, reported that lexical inability is one of the foremost reasons for lack of L2 performance, which Folse (2006) and Nation (2001) further supported by stating that lexical inability can obstruct the learning of L2 or FL. This is because in writing, the most difficult aspect is to maintain cohesion and coherence (Nunan, 1999). These two important aspects of writing could come to a halt if students do not have the required vocabulary knowledge. Therefore, the limited choices

of vocabulary restrict ESL students from voicing their thoughts in written texts (Rabab'ah, 2003) and this could reflect on their L2 writing quality. Read (2000) suggested that proficient writers have larger vocabulary choice, which enables them to vary the choice of words in their essay and avoid repetition. Researcher such as Zhai (2016) have reported that in writing, fewer repeated words were found in essays written by students with higher writing abilities than their counterparts. This adds to the limited vocabulary knowledge among Malaysian students, which can be associated with the current findings and indicates that the use of repeated words can possibly be caused by lack of vocabulary knowledge. Moreover, this argument further adds to the earlier finding that suggested the importance of increasing the teaching of vocabulary at tertiary level.

6.4.3 Basic Underlying Skills

One of the aims of this study was to find whether the basic underlying skills of morphology orthography and phonology were able to facilitate L2 writing. Although the quality of L2 writing requires advanced vocabulary knowledge, further analyses suggested that the multidimensional processes involved in L2 writing require basic underlying skills. Taking this into consideration, curriculum designers should incorporate morphology, orthography and phonology teaching in the secondary school syllabus, as this could help students to master the basic linguistic skills. As detailed in the literature, each of these basic linguistic skills has its purpose in language learning and development. Furthermore, this study further supports the association of these skills with vocabulary and grammar knowledge. Therefore, incorporating these skills in the school syllabus will not only improve L2 ability, but also improve their vocabulary and grammar knowledge. For example, morphological awareness is not only limited to spelling, but also in word formation and word recognition, which can be related to vocabulary and grammar knowledge. As such, exposure to linguistic aspects in L2 can be improved by tackling the main important linguistic aspects implemented in this study as remedial classes at tertiary level, especially among poor language learners. With this approach, students will have a better understanding of the TL and this will enable them to distinguish the differences and similarities between L1 and L2 rules. As they get familiar with the rules, students will be able to apply the rules correctly in both spoken and written forms. As shown in this study, participants' L2 spelling was supported by L1 orthographic knowledge, while grammar errors were caused by overuse of L2 rules.

Moreover, having this basic foundation will also increase their ability to generate new words in their L2 essay and eventually assist in vocabulary development. Having a good foundation in vocabulary will reduce the number of repeated words used. Although this situation has been noted by other researchers in Malaysia, there has been little action taken. To start, the number of teaching hours should be increased as teaching students important L2 linguistic skills takes time in terms of developing the right teaching materials and teaching approach. This will give educators time to teach the students how to form, recognise and spell words, and once they have the solid foundation of these basic underlying skills, time to associate these rules to develop their knowledge in vocabulary and grammar. Once students have mastered the linguistic rules, they can then be taught how to apply the rules accordingly in L2 writing. In doing so, this could reduce L1 interference in their L2 writing (as observed in the proportion of grammar errors), increase vocabulary knowledge (as observed in the proportion of repeated words) and thereby increase the quality of their L2 writing. Therefore, this will give Malay students a better chance when they move forward to tertiary education or the working environment.

6.4.4 Essay Rubrics

As discussed, in this study, essays were scored using the Jacobs et al. (1981) rubric. However, the outcome of this study indicated vocabulary knowledge as the predominant predictor of L2 writing ability compared to grammar knowledge and the three underlying linguistic aspects investigated. Although the rubric has five categories (content, organisation, vocabulary, language use and mechanics) to evaluate ESL essays, in practice, the overall rubric could have placed emphasis on vocabulary knowledge. Similar to the current study, in Astika's (1993) study, he found that the highest predictor of ESL composition scoring was for vocabulary. The regression analysis in his study indicated that the largest variance for L2 writing performance was accounted for by vocabulary knowledge (Astika, 1993). This is similar to the outcome found in this study, with a strong correlation between total essay score and vocabulary measure. Out of the five categories in the rubric, language use was developed to evaluate grammar knowledge; however, language use correlated weakly with the grammar measure. This further supports that the rubric could have placed emphasis on vocabulary knowledge, rather than grammar or other skills associated with L2 writing.

Advanced vocabulary knowledge influences the quality of an essay, L2 writing performance and academic success. Therefore, most ESL/EFL academics support the importance of

vocabulary for L2 writing, but other aspects, such as grammar and spelling are also important to produce quality writing. Giving attention to vocabulary knowledge will be beneficial for advanced language learners, but not for those who are at the beginning/developing stage of writing. Therefore, paying attention to other skills such as spelling and grammar that are essential to writing will benefit L2 writers in general. However, these arguments need further investigation into whether the rubric in general gives too much importance on vocabulary knowledge or the level of vocabulary possibly influencing ELT practitioners when evaluating L2 essays. This is because in the Malaysian ESL context, it is not an exception that vocabulary is seen as an everyday challenge, especially where L2 writing is concerned. Therefore, ELT practitioners could place more importance on vocabulary, since quality and academic success are mainly influenced by the learner's level of vocabulary knowledge. As such, future studies should be careful when selecting L2 essay-marking rubrics that can evaluate L2 writing in terms of morphology, orthography and phonology aspects that involve L2 writing and not just vocabulary knowledge alone.

6.4.5 Orthography Knowledge

Another important aspect that requires curriculum developers' attention is the orthographic rules. In this study, both Malay and English have alphabetical scripts, the former being less transparent and the latter being relatively opaque (see Chapter 3 for more details). In alphabetic languages, spelling is closely associated with orthography knowledge and phonological processing (Arab-Moghaddam & Sénéchal, 2001). Moreover, in order to spell in morphophonemic orthography languages, such as English, in addition to morphological awareness, writers need the knowledge of both orthography and phonology (Carlisle, 1988; Ehri, 1992) because of inconsistencies in grapheme-to-phoneme relationships. The current findings suggested that Malay students with a good foundation in L1 orthography are able to support their L2 spelling.

However, as discussed in Chapter 3, with the current development that has taken place in the Malay language, it is important to note that the Malay language has been influenced by loanwords from English. Taking into account the current nature of the Malay language, teaching students to distinguish the differences and similarities between L1 and L2 orthography rules will reduce the number of errors made in L2 writing. As observed in this study, L1 orthography knowledge was found to predict L2 spelling and grammar errors in L2 writing. This suggested that apart from their L2 orthography knowledge, Malay students depend more

on their L1 orthography knowledge in order to spell English words. However, analyses suggested that the errors found were caused by transfer from L1 rules to L2, especially in grammar. As such, teaching the right approach to distinguish the orthography rules of L1 and L2 could avoid spelling errors of borrowed words from English in Malay that have changed the spelling rule according to Malay. This will reduce students applying the same L1 orthography rules when writing an English essay. For example, the English borrowed word [screw] changed its spelling to Malay *skru*. Therefore, it is important to tailor lessons carefully so that students can differentiate between the rules and avoid making errors. Moreover, it is suggested that future studies examine whether the current changes in the Malay orthography structure result in Malay students making spelling errors in their L1 essays.

6.4.6 Grammar Knowledge

In this study, the predictor that least predicted L2 writing ability was grammar measure. This suggested that L2 grammar knowledge contributed less in the Malay-English adult bilingual learners' L2 writing. It has been well documented that there is a strong correlation between grammar knowledge and L2 writing proficiency (Sasaki & Hirose, 1996; Schoonen et al., 2003; Schoonen et al., 2011). Academics who are proponents for teaching of grammar would argue that grammar knowledge is as important as vocabulary knowledge in L2 composition, as the written quality of an essay also depends on grammar (Hinkel & Fotos, 2002). However, the finding in this study was inconsistent with other findings reported in the same ESL context, suggesting grammar knowledge is important for L2 writing.

First, it is important to look at the teaching of grammar in the Malaysian context. The participants in this study were among those who underwent an English curriculum where grammar rules were not taught explicitly, but rather implicitly, by incorporating them into the context of the topics and grammar exercises. Among the four skills, writing is given a lot of emphasis, but Malaysian ESL students still make grammar errors (Charanjit, et al., 2017). Abdul Rahman and Ab Rashid's (2017) study among ELT practitioners in Malaysia propounded that ESL learners should be taught grammar rules both explicitly and implicitly to improve their grammar knowledge. However, the concept of teaching grammar has been an ongoing debate, and whether the best way to master grammar is by learning the grammar rules, or if it would be more beneficial if the rules were integrated in the context of writing (e.g., Calkins, 1980; DiStefano & Killion, 1984) is still to be decided. This issue could have resulted from students relying mainly on their L1 structure when writing in L2, which is supported by

studies in Malaysia that analysed grammar errors in L2 writing written by Malay-English bilingual learners (Nik, Hamzah, & Rafidee, 2010; Yunus et al., 2013). In English, when the rules of tense are incorrectly applied to written text, this can change the whole context and content of the intended message and eventually affects the flow of the written work. Therefore, in the case of the Malaysian context, teaching grammar would be more beneficial, as students will be able to differentiate the grammatical rules between L1 and L2 and apply them correctly in their L2 writing. Although the current findings found that the main predictor of L2 writing was vocabulary knowledge, based on the grammar errors found in their L2 essays suggests that grammar knowledge also plays an important role in producing quality L2 essays. This is because in L2 writing, grammar knowledge can be viewed as the foundation of writing, while vocabulary is the pillar of writing.

6.4.7 Assessment Batteries

The assessment batteries that were developed to assess L2 writing quality in this study were important for predicting L2 writing in the ESL/EFL context among adult bilingual learners. As the findings in this study have indicated, in order to produce a quality L2 essay, vocabulary knowledge plays an important role. However, further analysis suggested that writing in L2 requires more than one skill in order to write, with these skills being the number of words written, the proportion of spelling and grammar errors and the proportion of repeated words. Therefore, the assessments developed and adapted both in Malay and English can be used to predict L2 writing quality among Malay-English bilingual learners at higher levels of learning. In addition, the morphology, orthography and phonology measures can be used to predict ESL/EFL learners' vocabulary, grammar and spelling ability, which has been reported in this study.

Also, studies that intend to assess younger Malay-English bilingual learners' L2 writing quality could adapt the assessment batteries according to their participants' level. This is because the current assessment took into consideration the level of difficulties, the participants' ages and the Malaysian secondary school curriculum since the participants of this study were adult learners. Therefore, future studies could adapt and improve the current study's assessments batteries according to their study's objective and participants' levels as these basic underlying skills were used to assess younger learners.

Moreover, the Malay measures developed for this study can be used for international students who are studying in Malaysia to predict their level of Malay writing performance. This is

because there were limited published measures available to assess the Malay language, especially among adult learners. In addition, the Malay Vocabulary Level Test developed in this study can be used as a benchmark to assess Malay vocabulary levels among international students both in Malaysia and Singapore. However, the current Malay measures may require some modification and piloting before the assessments can be implemented across the board. Therefore, the measures developed in this study, especially English measures, are not limited to applications in Malaysia, but are also applicable to a wide range of educators in other countries that use English as a second or foreign language.

6.4.8 The Adapted Not-So-Simple View of Writing Model

As discussed in Chapter 1, writing involves a complex range of linguistic and cognitive skills that influences one's writing performance. Although there are numerous L1 models proposed by scholars, this study chose the Not-So-Simple View of Writing model by Berninger and Winn (2006) as a theoretical framework to investigate the linguistic aspects required in L2 writing processes among Malay-English adult bilingual learners in Peninsular Malaysia.

The main objective was to examine the basic underlying skills of morphology, orthography and phonology as potential predictors of L2 writing. Therefore, the data was collected for language-related skills in order to expand our understanding of L2 writing. The findings from this study suggest that students with advanced vocabulary knowledge were assessed as producing better L2 essays. Vocabulary knowledge was the main predictor when the quality of the essay was assessed via the marking scales of Jacob et al. (1981). While this scale looks at the overall quality of writing, the use of vocabulary may be more directly associated with the text generation process proposed by the Not-So-Simple View of Writing model. In contrast, when features other than the overall quality of written text were considered, such as the number of words written and the proportion of spelling and grammar errors and repeated words, the data suggested that morphological awareness, orthographic knowledge and phonological processing were associated with L2 writing. Hence, these latter linguistic skills may be more important in supporting the writing process. The following paragraphs detail the connection within the language-related skills and the association with L2 writing.

As proposed by the Not-So-Simple View of Writing model, transcription skills require multidimensional skills since these skills have direct and indirect relationships with spelling acumen. Similar to the current study, these skills were found to be important for spelling and word formation. This is because English as a morphophonemic language (Venezky, 1970)

requires not only morphological awareness, but also orthography and phonology aspects in order to spell. Therefore, in order to maintain the flow of ideas during the process of writing, one would require these basic skills to spell correctly (Moats, 2005). Moreover, this study found that L1 orthographic knowledge supported L2 spelling in writing above L2 orthography.

On further investigation, the results from this study suggested that there were associations between the proportion of grammar errors and linguistic skill. This suggests that students with less development in morphology and orthography skills may produce grammar errors in L2 writing. This is because the linguistics aspects investigated are essential to the development of grammar knowledge, that is, morphological awareness is not only important in word formation, but also in recognising syntactic changes (Tyler & Nagy, 1989). One other possibility is that grammar errors can be associated with their L1 grammar which can be markedly different from their L2 grammar. For example, plurality is written differently in the Malay language: *kanak-kanak* is the plural form in the Malay language, while 'children' is the plural in English. The differences in grammar rules between the two languages could have caused Malay students to produce grammar errors in their L2 writing (for examples refer to Table 6.1. Types of L2 errors influenced by L1 interferences).

Based on the findings from this study, the influence of morphological awareness, orthographic knowledge and phonological processing, in addition to vocabulary and grammar skills, may align with the three stages of the L2 writing process, i.e., performance, proficiency, and quality. In terms of performance (i.e., the act of writing) and proficiency (i.e., the act of producing legible or illegible writing), one requires linguistic processes related to morphological, orthographic and phonological skills. In contrast, the quality of writing primarily requires vocabulary. In addition, morphology, orthography and phonology skills were also found to be associated with vocabulary and grammar knowledge, which further supports the importance of these skills in vocabulary and grammar development. This suggests that the components the study investigated may predict L2 writing either directly (i.e., vocabulary) or indirectly (i.e., morphological awareness, orthographic knowledge and phonological processing). Although the findings of this study suggest that grammar was least predicted in L2 writing, the researcher included grammar in the quality of writing. This is because most L2 writing researchers have proposed that grammar knowledge is as important as vocabulary knowledge when producing quality L2 writing (Fu, 2003; Hillocks & Smith, 2003) However, this aspect needs further investigation into whether grammar knowledge is important when arranging words in the right

order to form logical and meaningful sentences, or vocabulary knowledge alone is able to produce quality writing.

Therefore, this adapted model can be used as a foundation to develop and understand L2 writing among ESL/EFL learners. As this study only investigated the importance of the basic underlying skills in L2, future studies could investigate the connection between working memory, executive functions, and the basic underlying skills in the writing process among ESL/EFL learners. Figure 6.1 presents an adapted L2 writing model from Berninger and Winn (2006).

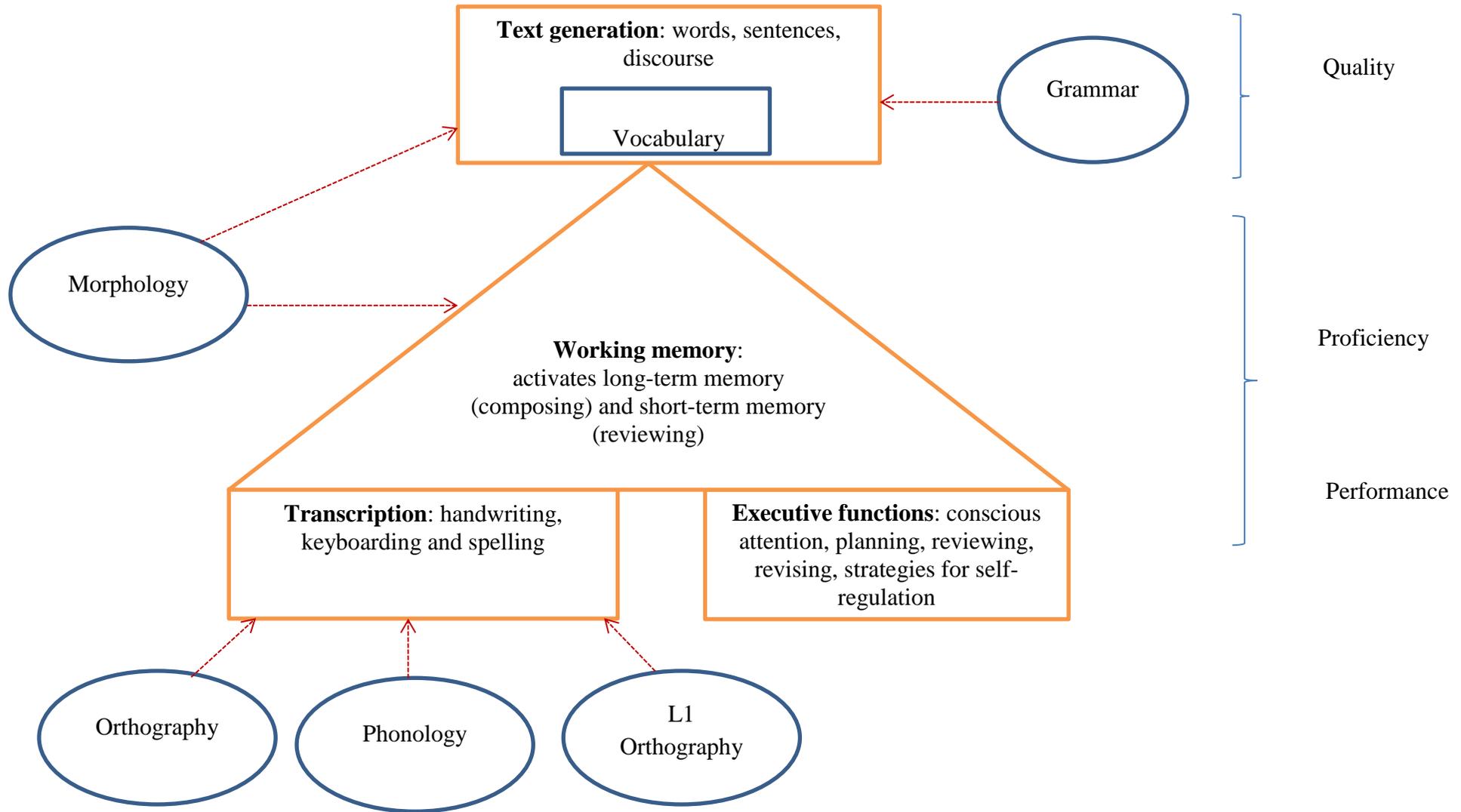


Figure 6.1. An adapted L2 writing model from Berninger and Winn (2006).

6.5 Limitations and Suggestions for Future Research

There are some limitations of this study that need to be considered. These limitations can offer pathways for future studies intended to develop research in the L2/FL writing context. The current study investigated and answered questions based on the aims proposed in Chapter 1, which focused on a number of basic underlying linguistic aspects, namely morphology, orthography and phonology, and how these underlying skills were able to transfer within and across languages to support L2 writing quality in addition to vocabulary and grammar knowledge. However, there are still aspects that need further investigation, which could increase the understanding of the basic underlying skills of morphology, orthography and phonology in the ESL/EFL writing context.

It is important to take note that the participants in this study were Malay-English adult bilingual learners from Peninsular Malaysia. They were selected from one of the 17 matriculation centres in Malaysia, with a small sample size ($n=120$), who were first-year pre-university students. This sample was selected due to time constraints and limited funding being available when the study was conducted. Therefore, the results from this study cannot be generalised to other matriculation centres in Malaysia, including Borneo (i.e., Sabah and Sarawak) and the Malay ethnic in Malaysia. Future studies could recruit participants from matriculation centres throughout Peninsular Malaysia or Sabah and Sarawak, among Malay-English adult bilingual learners, which would allow more room for higher level of generalisation across Malaysia in the context of L2/FL writing and cross-linguistic transfer, mainly in the ESL/EFL context. A larger sample may provide an in-depth understanding of the measures associated with L2 writing among the Malay population in Malaysia. This would allow the higher education sector to develop possible predictors of L2 writing performance to enhance L2 writing ability among Malaysians. Since the primary focus was on L2 writing skills among Malay ESL learners, the findings cannot be generalised across other skills in learning English, namely, reading, speaking and listening.

Next, this study examined the basic underlying linguistic skills and how such skills can influence L2 writing ability. Therefore, in terms of assessments, this study found it was appropriate to implement the measures of morphology awareness, orthography knowledge, phonology processing, vocabulary and grammar knowledge and how such skills can influence L2 writing proficiency. As detailed in Chapter 4, there were a limited number of published writing measures available, especially for measuring adult learners' L2/FL writing

performance. Therefore, most of the morphology, orthography and phonology measures used in this study were developed and adapted based on assessments that were used to measure ESL/ELF reading performance. However, due to the large number of variables developed and analysed, and also due to time constraints, the association between reading comprehension and L2 writing was not included. This is because previous studies have documented that reading comprehension enhances vocabulary development which then contributes to better writing ability (Erdogan, 2011; Kieffer & Box, 2013). As such, future work could focus on developing and associating the relationship between reading comprehension in vocabulary development and L2 writing ability.

In addition, Standard Malay used in public schools throughout the country, including Sabah and Sarawak, is based on Romanised or Rumi scripts. Therefore, for the purpose of this study, the Malay measures were developed based on Standard Malay as the participants were from public schools. Nonetheless, each state has its own dialects which differ in terms of orthographic depth (Asmah, 1977; Phoon, et al., 2012). For example, Standard Malay has six vowel sounds (Yunus, 1980), however, the Kelantanese dialect possesses nine vowel sounds (Mahmood, 1977). Meanwhile, *Jawi* (an adapted Arabic script) is mainly used in religious studies among ethnic Malay in Malaysia. This study did not examine the influence of dialects or *Jawi* in L2 writing and/or cross-language transfer although in the background questionnaire students were required to identify their knowledge of *Jawi*. However, the number of participants who had knowledge of *Jawi* were few ($n=5$), which was inadequate to investigate the influence of *Jawi* in L2 writing and/or cross-language transfer. Therefore, studies in the future should take into consideration the influence of dialects and *Jawi* in L2 writing and/or cross-language transfer and develop measures accordingly that able to control of these two aspects which could have a certain degree of influence in the way Malay students write their English essays. Apart from the differences in orthographic structure, the local dialects and *Jawi* varies in terms of sentence structure (see Mahmood, 1977).

To be in line with the objectives of the study, which focused on Malay-English adult bilingual L2 writing performance and cross-language transfer, the study only recruited students of Malay origin. Malaysia, being a multinational society, consists of three main ethnic groups: Malay, Chinese and Indian (Asmah, 1998; Huzaina, 2013). Chinese and Indian people are mainly multilingual (Kim, Siong, Fei, & Ya'acob, 2010). As such, a future study could develop measures in alphasyllabic or logographic scripts, to investigate transfer from their L1 (e.g., Tamil or Mandarin) and L2 (i.e., Malay) influence on their English essay writing. It would be

interesting to know the outcomes because all three languages (English, Tamil or Mandarin) differ in terms of their orthographic complexity and writing scripts. This is because in this study, Malay orthographic knowledge was found to support L2 spelling over and above L2 orthographic knowledge. In addition, examining whether the Malay language has an influence among Indian and Chinese students' English essay writing or more of their own L1 influence in L2 writing could provide a better understanding to academics. This is because in Malaysia, regardless of ethnicity, all Malaysians who undergo the national primary and secondary education system will be taught in the Malay language. Therefore, there may be a possibility of the Malay language influencing Indian and Chinese students' way of writing English essays in Malaysia. As observed in the proportion of grammar errors, the L2 errors were due to overuse of L1 rules. Since all public schools in Malaysia use Malay as the language of instruction, there might be a chance that Indian and Chinese make the same L2 grammar errors as Malay make in their L2 essay.

Future studies could also consider vocabulary intervention in L2 writing. The findings from the present work suggested that the main predictor of L2 writing was vocabulary knowledge. In Malaysian schools, grammar teaching of has been incorporated in the context of topics, but not in terms of vocabulary teaching. Thus, explicit vocabulary teaching is important among ESL/EFL study, and this will enable students to develop their vocabulary knowledge (Laufer, 1991, 1994). Therefore, new words should be introduced in lessons with a focus on how these words can be used in their essay writing. This will allow students to use synonyms in their L2 essay, rather than repeat words in order to maintain coherence. This recommendation is in line with Laufer and Paribakht's (1998) work that ESL students will have the ability to comprehend words when more practice is given using infrequently used words. Another suggestion is to implement an intervention workshop aiming to improve adult ESL students' vocabulary skills, given that adult learners' vocabulary knowledge is essential in order to be successful at tertiary level. As discussed in the literature and from the current findings, grading of written assignments is mainly influenced by the use of vocabulary. As Nation (2001) highlighted "vocabulary plays a significant role in the assessment of the quality of written work" (p. 178). Therefore, targeting the lower achiever is necessary in order to teach them the vocabulary knowledge, as Wong (2012) argues, giving priority to vocabulary training will be beneficial for those with less language proficiency. Moreover, in this study, strong correlations were found between morphological awareness and vocabulary knowledge. This suggested that a good morphological foundation will increase the vocabulary level. However, this study did not

look at the effect of morphological awareness in vocabulary development. Therefore, future studies should consider an intervention study by including activities associated to morphological awareness and vocabulary development among ESL/EFL learners and later, the association to L2/FL writing quality.

This study implemented the Jacobs et al. (1981) rubric to score the students' essays. The outcome from this study indicated that vocabulary knowledge predicts L2 writing proficiency. However, when the essays were further analysed for the number of words written, proportion of spelling and grammar errors and repeated words, the results suggested that L2 writing requires other linguistic abilities, namely, morphology, orthography and phonology. Moreover, past studies that used the Jacob et al. (1981) rubric found that vocabulary correlated highly with L2 writing proficiency. This suggested that, although the rubric has five categories, the main emphasis is towards vocabulary. Taking this into consideration, future studies should carefully select essay-marking rubrics that give importance to other linguistic abilities rather than being mainly vocabulary focused. Although Systematic Analysis of Language Transcript conventions (SALT) were initially developed to analyse spoken transcripts, future studies could consider using these for essay analysis. In the SALT analyses, the written sample can be transcribed using a computer database by using certain codes to ensure that the assessed variables reflect the aspect of L2 writing that the study proposes to measure. Therefore, SALT could be used to analyse the predictor of L2 writing compared to the Jacobs et al. (1981) rubric.

Lastly, as detailed in Chapter 1, one of the aims of this study was to investigate the influence of morphology, orthography and phonology awareness in L2 writing. For that reason, in the study the students' essay scores were not categorised according to their proficiency level (i.e., advanced, moderate and beginner). As discussed, the preliminary findings suggested that the ability to transfer L1 skills to L2 writing did not serve as an advantage for writing well in L2. Regarding the degree of skill transfer between proficient and less proficient students in L2 writing, further analyses are required to justify the current findings. This is because whether the L1 interference in L2 writing is caused by less proficient students or both is still unclear. Some of the examples used in this discussion were taken randomly from essay scripts to give an understanding of transfer between L1 and L2, and are shown in Table 6.1. Future studies could consider giving more emphasis based on participants' L2 proficiency and decide which linguistic skills require attention. Therefore, when the rule of Malay morphology, orthography and phonology are applied directly in L2 writing, this could result in errors. This is because both Malay and English are different in terms of morphological, orthographical and

phonological rules. It is important for the Malay-English adult bilingual learners to understand the L1 and L2 rules in order to avoid errors, especially where spelling is concerned. Also, targeting the lower achiever is necessary, as Wong (2012) argues that “linguistic barriers in L2 affect both writing performance and students’ ability in applying the effective strategies in writing” (p. 184). Although the errors produced in the L2 essays were not categorised according to the linguistics interferences, Table 6.1 gives an overview of the types of errors caused by L1 interference and poor lexical ability. In this table, two other interferences are noted—language switch and translation, while not part of this study, are included for future research consideration.

Table 6.1. Types of L2 writing errors influenced by L1 Interferences

Skill	Description	Example
Grammar	The rule of SVO in L2 is more complex compared to the SVO rules in L1, which resulted in wrongly applying the L2 SVO rules in sentences. In L1 it is not mandatory for the subject to complement the verb.	Example (1): ...they will depends ... Correction: ...they will depend ... Example (2): ...my parents was so... Correction: ...my parents were so... Example (3): ...must take a responsibilities ... Correction: ...must take responsibility ...
Vocabulary	The use of unsuitable L2 words in sentences is generally caused by students having limited choice of vocabulary, or by semantic confusion since the TL has a wider range of words in comparison to their L1.	Example (1): ...it can make our ozone... Correction: ...it can cause/effect our ozone... Example (2): ...them get less treated at home ... Correction: ...them get less attention/care at home ... Example (3): ...them maybe think offended... Correction: ...them may feel offended...
Morphology	The limited inflectional form in L1 causes students to overuse the L2 rules in forming new words, or in order to give grammatical context. In the TL, the affixes change the spelling of the root word, while in L1 the root word remains the same even after adding the affixes.	Example (1): lifes Correction: lives Example (2): safier Correction: safer Example (3): cutted Correction: cut

Skill	Description	Example
Orthography	The nature of L1 is less transparent than L2 and the letter-to-sound rules in L2 are more complex than in L1. The lack of orthography knowledge could have caused students to use the L1 grapheme-phoneme correspondence in L2 spelling.	Example (1): concuision Correction: conclusion Example (2): conneet Correction: connect Example (3): insteed Correction: instead
Phonology	Word segmentation and sound recognition is more direct in L1 than in L2; and applying the same L1 rules in L2 words results in misspelling.	Example (1): carpulling Correction: carpooling Example (2): riducing Correction: reducing Example (3): organice Correction: organise
Loanwords	The L1 has a number of loanwords from L2 where some of the words changed the original spelling of the loanwords in order to follow L1 orthography rules. Students who failed to differentiate the letter-to-sound rules between L1 and L2 ending up spelling the loan words in L1.	Example (1): pensel Correction: pencil Example (2): teknologi Correction: technology Example (3): bas Correction: bus
Language Switch	The use of L1 words in L2 is mainly caused by lack of vocabulary in L2 to express their ideas.	Example (1): <i>gotong-royong</i> Correction: community teamwork Example (2): <i>Hari Hijau Sedunia</i> Correction: Earth Day Example (3): <i>Hutan Simpanan Negara</i> Correction: Forest Reserves
Translation	Direct translation from L1 to L2 is made by substituting L1 words equivalent to L2.	Example (1): ...new applications were born ... Correction: ...new applications were developed ... Example (2): ...from inside the country... Correction: ... within the country... Example (3): ...we should take care of our... Correction: ...we should protect our...

6.6 Conclusion

In the ESL context, writing becomes a crucial aspect when one embarks on their tertiary education, being the key component in their academic accomplishment. ESL students' academic achievement and working lives are largely based on their written work. Therefore, a good foundation in L2 writing could ensure ESL students being proficient in their L2 writing, which would eventually enable them to be successful in their academic studies and work. This can be accomplished by teaching or introducing predictors of writing in L2 teaching and learning.

The following outcomes were emerged from this study. Although in this study it was observed that in order to produce quality L2 writing, Malay-English adult bilingual learners required vocabulary knowledge, the basic underlying skills are also important in the process of writing when further analyses were observed in the number of words written, proportion of spelling and grammar errors and repeated words. In terms of cross-language transfer, there were no associations found across languages. Similar to the earlier findings in this study, vocabulary measure was the main predictor of writing within language. However, when the number of words written, proportion of spelling and grammar and repeated words in L2 were analysed for L2 writing skill, L1 orthography was found to positively influence L2 spelling over and above L2 orthography, but not in the case of L2 grammar. Therefore, the overall findings suggested that in addition to vocabulary knowledge, L2 writing also requires other linguistic aspects in order to produce quality L2 writing.

In short, writing is like a jigsaw puzzle. Each piece needs to be assembled correctly in order to see the precise picture that is hidden within the puzzle. Likewise, when a learner has acquired the essential linguistic aspects required in writing, these aspects will assist the learner in putting their thoughts into words, developing clear and meaningful sentence structures, and organising the flow of the content coherently and cohesively in order to produce a quality piece of written work.

REFERENCES

- Aaron, P. G., Joshi, M., & Williams, K. A. (1999). Not all reading disabilities are alike. *Journal of Learning Disabilities*, 32, 120-137. <https://dx.doi.org/10.1177/002221949903200203>
- Abbott, R. D., & Berninger, V. W. (1993). Structural equation modelling of relationships among developmental skills and writing skills in primary-and intermediate-grade writers. *Journal of Educational Psychology*, 85, 478-508. <https://dx.doi.org/10.1037/0022-0663.85.3.478>
- Abbott, R. D., Berninger, V. W., & Fayol, M. (2010). Longitudinal relationships of levels of language in writing and between writing and reading in grades 1 to 7. *Journal of Educational Psychology*, 102, 281-298. <https://dx.doi.org/10.1037/a0019318>
- Abdullah, H., & Ainon, M. (1994). *Bahasa Melayu untuk maktab perguruan*. Kuala Lumpur, Malaysia: Fajar Bakti.
- Abdul Rahman, A. M., & Ab Rashid, R. (2017). Explicit and implicit grammar instructions in higher learning institutions. *English Language Teaching*, 10, 92-101. <https://dx.doi.org/10.5539/elt.v10n10p92>
- Abidin, N.Z., Ismayatim, W. F. A., & Yee, W. L. (2016). English to Malay (*Bahasa Melayu*) translation: Syntactical issues involving time reference. *International Journal of Humanities and Social Science Invention*, 5, 58-68. Retrieved from [http://www.ijhssi.org/papers/v5\(9\)/J059058068.pdf](http://www.ijhssi.org/papers/v5(9)/J059058068.pdf)
- Abu-Rabia, S., Shakkour, W., & Siegel, L. (2013). Cognitive Retroactive Transfer (CRT) of language skills among bilingual Arabic-English readers. *Bilingual Research Journal*, 36, 61-81. <https://dx.doi.org/10.1080/15235882.2013.775975>
- Abu-Rabia, S., & Siegel, L. S. (2002). Reading, syntactic, orthographic, and working memory skills of bilingual Arabic-English speaking Canadian children. *Journal of Psycholinguistic Research*, 31, 661-678. <https://dx.doi.org/10.1023/A:1021221206119>
- Abu-Rabia, S., & Siegel, L. S. (2003). Reading skills in three orthographies: The case of trilingual Arabic-Hebrew English-speaking Arab children. *Reading and Writing*, 16, 611-634. <https://doi.org/10.1023/A:1025838029204>
- Adas, D., & Bakir, A. (2013). Writing difficulties and new solutions: Blended learning as an approach to improve writing abilities. *International Journal of Humanities and Social Science*, 3, 254-266. Retrieved from <https://staff-ld.najah.edu/sites/default/files/28.pdf>
- Adawiyah, R. T. (2017). *Bilingual first language acquisition in Malay and English: A morphological and suprasegmental study in the development of plural expressions in a bilingual child* (Unpublished doctoral dissertation). Western Sydney University, Australia.
- Adelaar, A. (2005). Malayo-Sumbawan. *Oceanic Linguistics*, 44, 357-388. <https://dx.doi.org/10.1353/ol.2005.0027>

- Adelaar, A., & Himmelmann, N. (Eds.). (2005). *The Austronesian languages of Asia and Madagascar*. New York, NY: Routledge.
- Adler, S. (1993). *Multicultural communication skills in the classroom*. Boston, MA: Allyn & Bacon.
- Ahmad, Z. (1993). *Fonologi generatif: Teori dan penerapan*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Ahmadi, M. R., Ismail, H. N., & Abdullah, M. K. K. (2012). Improving vocabulary learning in foreign language through reciprocal teaching strategy. *International Journal of Learning and Development*, 2, 186-201. <https://dx.doi.org/10.5296/ijld.v2i6.2882>
- Aidinis, A., & Nunes, T. (2001). The role of different levels of phonological awareness in the development of reading and spelling in Greek. *Reading and Writing*, 14, 145-177. <http://dx.doi.org/10.1023/A:1008107312006>
- Ainol, M. Z. (2001). *Reliability and validity in placement testing with reference to the English placement test at the International Islamic University Malaysia* (Unpublished doctoral dissertation). University of Surrey, England.
- Akinwamide, T. K. (2012). The influence of process approach on English as second language students' performances in essay writing. *English Language Teaching*, 5, 16-29. <http://dx.doi.org/10.5539/elt.v5n3p16>
- Alamargot, D., & Chanquoy, L. (2001). *Through the models of writing*. London, UK: Kluwer Academics.
- Al-Gharabally, M. (2015). The writing difficulties faced by L2 learners and how to minimize them. *International Journal of English Language and Linguistics Research*, 3, 42-49.
- Aliakbari, M. (2002). Writing in a foreign language: A writing problem or a language problem? *Journal of Pan-Pacific Association of Applied Linguistics*, 6, 157-68.
- Al-Jarf, R. (2001). Processing of cohesive ties by EFL Arab college students. *Foreign Language Annals*, 34, 141-151. <https://dx.doi.org/10.1111/j.1944-9720.2001.tb02819.x>
- Al-Khasawneh, F. M. (2012). Vocabulary learning strategies: A case of Jordan University of Science and Technology. *English for Specific Purposes World*, 34, 1-15.
- Al-Kufaishi, A. (1988). A vocabulary building program is a necessity not a luxury. In *English Teaching Forum*, 26, 42-44.
- Al-Tamimi, Y., & Rabab'Ah, G. (2007). The relationship between phonological awareness and word reading. *Studies in Contemporary Linguistics*, 43, 5-21. <https://dx.doi.org/10.2478/v10010-007-0011-6>
- Allor, J. H. (2002). The relationships of phonemic awareness and rapid naming to reading development. *Learning Disability Quarterly*, 25, 47-57.

- Altmisdort, G. (2016). The effects of L2 reading skills on L1 reading skills through transfer. *English Language Teaching*, 9, 28-35. <http://dx.doi.org/10.5539/elt.v9n9p28>
- Altman, D. G. (1999). *Practical statistics for medical research*. New York, NY: Chapman & HallPress.
- Alsalamah, N. S. (2011). *The relationship between morphological awareness and English vocabulary acquisition of Saudi female students at King Saud University* (Unpublished doctoral dissertation). University of Wisconsin, United States.
- Alsager, R., & Milton, J. (2016). Investigating the relationship between vocabulary knowledge and academic success of Arabic undergraduate learners in Swansea University. *Language in Focus*, 2, 88-124. <https://dx.doi.org/10.1515/lifijsal-2016-0010>
- Amaro, J. C., Campos-Dintrans, G., & Rothman, J. (2017). The role of L1 phonology in L2 morphological production: L2 English past tense production by L1 Spanish, Mandarin, and Japanese speakers. *Studies in Second Language Acquisition*, 31, 175-198. <http://dx.doi.org/10.1017/S0272263117000122>
- Amiri, F., & Puteh, M. (2017). Error analysis in academic writing: A case of international postgraduate students in Malaysia. *Advances in Language and Literary Studies*, 8, 141-145. <http://dx.doi.org/10.7575/aiac.all.v.8n.4p.141>
- Amran, H. (1984). *Intonasi dalam hubungannya dengan sintaksis Bahasa Indonesia*. Jakarta, Indonesia: Djambatan.
- Anderson, J. (2005). *Mechanically inclined*. Portland, ME: Stenhouse.
- Andreou, G., & Segklia, M. (2017). Learning difficulties in first and second language: Preliminary results from a cross-linguistic skills transfer. *English Linguistics Research*, 6, 62-71. <https://dx.doi.org/10.5430/elr.v6n3p62>
- Anglin, J. M. (1993). Vocabulary development: A morphological analysis. *Monographs of the Society for Research in Child Development*, 58(10), 1-166.
- Anthony, J. L., & Francis, D. J. (2005). Development of phonological awareness. *Current Directions in Psychological Science*, 14, 255-259. <https://dx.doi.org/10.1111/j.0963-7214.2005.00376.x>
- Antonacci, P. A., & Callaghan, C. M. (2011). *Promoting literacy development: 50 research-based strategies for K-8 learners*. Thousand Oaks, CA: Sage.
- Apel, K. (2011). What is orthographic knowledge? *Language, Speech, and Hearing Services in Schools*, 42, 592-603. [https://dx.doi.org/10.1044/0161-1461\(2011/10-0085\)](https://dx.doi.org/10.1044/0161-1461(2011/10-0085))
- Apel, K., Wolter, J. A., & Masterson, J. J. (2006). Effects of phonotactic and orthotactic probabilities during fast mapping on 5-year-olds' learning to spell. *Developmental Neuropsychology*, 29, 21-42. http://dx.doi.org/10.1207/s15326942dn2901_3

- Arab-Moghaddam, N., & Sénéchal, M. (2001). Orthographic and phonological processing skills in reading and spelling in Persian/English bilinguals. *International Journal of Behavioural Development*, 25, 140-147.
<https://dx.doi.org/10.1080/01650250042000320>
- Arciuli, J., & Monaghan, P. (2009). Probabilistic cues to grammatical category in English orthography and their influence during reading. *Scientific Studies of Reading*, 13, 73-93. <https://dx.doi.org/10.1080/10888430802633508>
- Arfah, N. (1988). *The performance of Malay high school students on subject-verb agreement measured by four testing methods* (Unpublished master's dissertation). Colorado State University, United States.
- Arnbak, E., & Elbro, C. (2000). The effects of morphological awareness training on the reading and spelling skills of young dyslexics. *Scandinavian Journal of Educational Research*, 44, 229-251. <http://dx.doi.org/10.1080/00313830050154485>
- Arndt, E. J., & Foorman, B. R. (2010). Second graders as spellers: What types of errors are they making? *Assessment for Effective Intervention*, 36, 57-67.
<https://dx.doi.org/10.1177/1534508410380135>
- Asmah, H. O. (1975). *Essays on Malaysia linguistics*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Asmah, H. O. (1976). *The teaching of Bahasa Malaysia in the context of language planning*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Asmah, H. O. (1977). *The phonological diversity of the Malay dialects*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Asmah, H. O. (1979). *Language planning for unity and efficiency*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Asmah, H. O. (1985). *Susur galur Bahasa Melayu*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Asmah, H. O. (1989). The Malay spelling reform. *Journal of the Simplified Spelling Society*, 11, 9-13.
- Asmah, H. O. (1992). *The linguistic scenery in Malaysia*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Asmah, H. O. (1996). Post-imperial English in Malaysia. In A. W. Conrad & A. Rubal-Lopez (Eds.), *Post-imperial English: Status change in former British and American colonies 1940-1990* (pp. 513-533). Berlin, Germany: Mouton de Gruyter.
- Asmah, H. O. (2003). *Language and language situation in Southeast Asia: With a focus on Malaysia*. Kuala Lumpur, Malaysia: Universiti Malaya.
- Asmah, H. O. (Ed.). (2004). *The encyclopedia of Malaysia: Languages and literature* (Vol. 9). Singapore: Editions Didier Millet.

- Asmah, H. O. (2008). *Ensiklopedia Bahasa Melayu*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Asmah, H. O. (2012). Pragmatics of maintaining English in Malaysia's education system. In L. Ee-Ling & A. Hashim (Eds.), *English in Southeast Asia: Features, policy and language in use* (pp. 155-174). Amsterdam, The Netherlands: John Benjamins.
- Asmah, H. O. (2015). *Languages in the Malaysian education system*. New York, NY: Routledge.
- August, D., Kenyon, D., Malabonga, V., Louguit, M., Caglarcan, S., & Carlo, M. (2001). *Extract the base test-English*. Washington, DC: Centre for Applied Linguistics.
- Azar, B. (2007). Grammar-based teaching: A practitioner's perspective. *TESL-EJ*, 11, 1-12. Retrieved from <http://tesl-ej.org/ej42/a1.html>
- Azlina, M. S., Kaur, P., Aspalila, S., & Rosna, A. H. (2005). *Exploring the linguistic power of English and Malay: Perceptions of vitality and language domains among undergraduates* (Research Report). Sintok, Malaysia: Universiti Utara Malaysia.
- Azmi, M. N. L., Ching, L. T. P., Norbahyah, J, Haziq, M. N., Habibullah, M., Yasser, M. A., & Jayakumar, K. (2016). The comparison and contrasts between English and Malay languages. *English Review*, 4, 209-218.
- Badiozaman, A., I., F. (2012). *A study on the relationship between Malaysian learners' self-concept in academic writing and their engagement in one higher learning institution* (Unpublished doctoral dissertation). Massey University, New Zealand.
- Bahr, R. H., Silliman, E. R., Berninger, V. W., & Dow, M. (2012). Linguistic pattern analysis of misspellings of typically developing writers in grades 1-9. *Journal of Speech, Language, and Hearing Research*, 55, 1587-1599. [https://dx.doi.org/10.1044/1092-4388\(2012/10-0335\)](https://dx.doi.org/10.1044/1092-4388(2012/10-0335))
- Baker, T. L. (1994). *Doing social research* (2nd ed.). New York, NY: McGraw Hill.
- Balcom, P. (2003). Cross-linguistic influence of L2 English on middle constructions in L1 French. In V. J. Cook (Ed.), *Effects of the second language on the first* (pp. 168-192). Clevedon, UK: Multilingual Matters.
- Ball, S. E. (2003). *The relation between reading and writing development in English and ESL students* (Unpublished doctoral dissertation). University of Toronto, Canada.
- Ball, R., & Chik, R. (2001). Early employment outcomes of home and foreign educated Graduates-the Malaysian experience. *Higher Education*, 42, 171-189.
- Baskaran, L. (1987). *Aspects of Malaysian English syntax* (Unpublished doctoral dissertation). University of London, England.
- Baskaran, L. (2004). Malaysian English: Phonology. In E. W. Schneider, K. Burrige, B. Kortmann, R. Mesthrie, & C. Upton (Eds.), *A handbook of varieties of English phonology* (pp. 1034-1046). Berlin, Germany: Mouton de Gruyter.

- Baskaran, L. (2005). *A Malaysian English primer: Aspects of Malaysian English features*. Kuala Lumpur, Malaysia: University of Malaysia Press.
- Baron, J., & Strawson, C. (1976). Use of orthographic and word-specific knowledge in reading words aloud. *Journal of Experimental Psychology: Human Perception and Performance*, 2, 386-393. <http://dx.doi.org/10.1037/0096-1523.2.3.386>
- Baumann, J. F., Edwards, E. C., Font, G., Tereshinski, C. A., Kame'enui, E. J., & Olejnik, S. (2002). Teaching morphemic and contextual analysis to fifth-grade students. *Reading Research Quarterly*, 37, 150-176. <https://dx.doi.org/10.1598/RRQ.37.2.3>
- Beceren, S. (2010). Comparison of metalinguistic development in sequential bilinguals and monolinguals. *International Journal of Educational Researchers*, 1, 28-40.
- Beck, I., McKeown, M. G., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary development*. New York, NY: Guilford.
- Beesley, K. R., & Karttunen, L. (2003). *Finite state morphology*. Stanford, CA: CSLI.
- Beglar, D., & Hunt, A. (1999). Revising and validating the 2000 word level and University word level vocabulary tests. *Language Testing*, 16, 131-162. <http://dx.doi.org/10.1177/026553229901600202>
- Bellwood, P., Fox, J. J., & Tryon, D. (Eds.). (1995). *The Austronesians*. Canberra, Australia: ANU E Press.
- Benjamin, G. (2009). Affixes, Austronesian and iconicity in Malay. *Journal of the Humanities and Social Sciences of Southeast Asia*, 165, 291-323.
- Bentin, S., & Feldman, L. B. (1990). The contribution of morphological and semantic relatedness to repetition priming at short and long lags: Evidence from Hebrew. *The Quarterly Journal of Experimental Psychology*, 42, 693-711. <http://dx.doi.org/10.1080/14640749008401245>
- Berninger, V. W., Abbott, R. D., Abbott, S. P., Graham, S., & Richards, T. (2002). Writing and reading: Connections between language by hand and language by eye. *Journal of Learning Disabilities*, 35, 39-56.
- Berninger, V., & Amtmann, D. (2003). Preventing written expression disabilities through early and continuing assessment and intervention for handwriting and/or spelling problems: Research into practice. In H. Swanson, K. Harris, & S. Graham (Eds.) *Handbook of learning disabilities* (pp. 323- 344). New York, NY: The Guilford Press.
- Berninger, V. W., Vaughan, K., Abbott, R. D., Begay, K., Coleman, K. B., Curtin, G., ... Graham, S. (2002). Teaching spelling and composition alone and together: Implications for the simple view of writing. *Journal of Educational Psychology*, 94, 291-304. <https://dx.doi.org/10.1037/0022-0663.94.2.291>
- Berninger, V. W., & Winn, W. (2006). Implications of advancements in brain research and technology for writing development, writing instruction, and educational evolution. In C. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 96-114). New York, NY: Guilford Press.

- Bereiter, C., & Scardamalia, M. (1987). *The psychology of written composition*. Hillsdale, NJ: Lawrence Erlbaum.
- Berko, J. (1958). The child's learning of English morphology. *Word*, 14, 150-177. <https://dx.doi.org/10.1080/00437956.1958.11659661>
- Berman, R. (1994). Learner's transfer of writing skills between languages. *TESL Canada Journal*, 12, 29-46. <https://dx.doi.org/10.18806/tesl.v12i1.642>
- Berne, J. I., & Blachowicz, C. L. (2008). What reading teachers say about vocabulary instruction: Voices from the classroom. *The Reading Teacher*, 62, 314-323. <https://dx.doi.org/10.1598/RT.62.4.4>
- Best, C. T. (1995). A direct realist view of cross-language speech perception. In W. Strange (Ed.), *Speech perception and linguistic experience: Issues in cross-language research* (pp. 171-204). Timonium, MD: York Press.
- Bialystok, E. (1988). Levels of bilingualism and levels of linguistic awareness. *Developmental Psychology*, 24, 560-567. <http://dx.doi.org/10.1037/0012-1649.24.4.560>
- Bialystok, E. (1991). Metalinguistic dimensions of bilingual language proficiency. In E. Bialystok (Ed.), *Language processing in bilingual children* (pp. 113-140). Cambridge, UK: Cambridge University Press.
- Bialystok, E. (2001a). *Bilingualism in development: Language, literacy, and cognition*. Cambridge, UK: Cambridge University Press.
- Bialystok, E. (2001b). Metalinguistic aspects of bilingual processing. *Annual Review of Applied Linguistics*, 21, 169-181. <https://dx.doi.org/10.1017/S0267190501000101>
- Bialystok, E. (2009). Bilingualism: The good, the bad, and the indifferent. *Bilingualism: Language and Cognition*, 12, 3-11. <https://dx.doi.org/10.1017/S1366728908003477>
- Bialystok, E., McBride-Chang, C., & Luk, G. (2005). Bilingualism, language proficiency, and learning to read in two writing systems. *Journal of Educational Psychology*, 97, 580-590. <http://dx.doi.org/10.1037/0022-0663.97.4.580>
- Bindman, M. (2004). Grammatical awareness across languages and the role of social context: Evidence from English and Hebrew. In T. Nunes & P. Bryant (Eds.), *Handbook of children's literacy* (pp. 691-710). Dordrecht, The Netherlands: Kluwer Academic.
- Birdsong, D. (1989). *Metalinguistic performance and interlinguistic competence*. New York, NY: Springer.
- Blust, R. (2013). *The Austronesian languages*. Canberra, Australia: School of Pacific and Asian Studies.
- Bolitho, R., Carter, R., Hughes, R., Ivanič, R., Masuhara, H., & Tomlinson, B. (2003). Ten questions about language awareness. *English Language Teaching Journal*, 57, 251-259. <https://dx.doi.org/10.1093/elt/57.3.251>

- Boulware-Gooden, R., Joshi, R. M., & Grigorenko, E. (2015). The role of phonology, morphology, and orthography in English and Russian spelling. *Dyslexia*, 21, 142-161. <https://dx.doi.org/10.1002/dys.1498>
- Bou-Franch, P. (1998). "Pragmatic transfer". In C. A. Chapelle (Ed.), *The encyclopedia of applied linguistics* (pp. 1-5). Oxford, UK: Wiley-Blackwell.
- Botley, S., Hakim, F., & Dillah, D. (2007). Investigating spelling errors in a Malaysian learner corpus. *Malaysian Journal of ELT Research*, 3, 74-93.
- Botley, S. P., & Hakim, F. (2014). Argument structure in learner writing: A corpus-based analysis using argument mapping. *Kajian Malaysia*, 32, 45-77.
- Breetvelt, I., Van den Bergh, H., & Rijlaarsdam, G. (1994). Relations between writing processes and text quality: When and how? *Cognition and Instruction*, 12, 103-123. http://dx.doi.org/10.1207/s1532690xci1202_2
- Bright, W. (1992). *International encyclopedia of linguistics*. Oxford, UK: Oxford University Press.
- Brisk, M. E. (2006). *Bilingual education: From compensatory to quality schooling*. Mahwah, NJ: Lawrence Erlbaum.
- Brisk, M. E. (2011). Learning to write in the second language K-5. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 40-56). New York, NY: Routledge.
- Brisk, M. E., & Harrington, M. M. (2010). *Literacy and bilingualism: A handbook for all teachers*. New York, NY: Routledge.
- Brogan, F. D., & Son, J. (2015). Native language transfer in target language usage: An exploratory case study. *Voices*, 3, 47-62.
- Brooks, G. (2013). Assessment and academic writing: A look at the use of rubrics in the second language writing classroom. *Kwansei Gakuin University Humanities Review*, 17, 227-240.
- Brown, H. D. (2007). *Teaching by principles: An interactive approach to language pedagogy*. New York, NY: Pearson Education.
- Brown, H. D. (2014). *Principles of language learning and teaching: A course in second language acquisition*. White Plains, NY: Pearson Education.
- Brown, G. T. L., Glasswell, K., & Harland, D. (2004). Accuracy in the scoring of writing: Studies of reliability and validity using a New Zealand writing assessment system. *Assessing Writing*, 9, 105-121. <http://dx.doi.org/10.1016/j.asw.2004.07.001>
- Calkins, L. M. (1980). When children want to punctuate: Basic skills belong in context. *Language Arts*, 57, 567-573.
- Camilli, G., & Shepard, L. A. (1994). *Methods for identifying biased test items*. Thousand Oaks, CA: Sage.

- Caravolas, M., Hulme, C., & Snowling, M. J. (2001). The foundations of spelling ability: Evidence from a 3-year longitudinal study. *Journal of Memory and Language*, *45*, 751-774. <http://dx.doi.org/10.1006/jmla.2000.2785>
- Carlisle, J. F. (1988). Knowledge of derivational morphology and spelling ability in fourth, sixth, and eighth graders. *Applied Psycholinguistics*, *9*, 247-266. <https://doi.org/10.1017/S0142716400007839>
- Carlisle, J. F. (2010). Effects of instruction in morphological awareness on literacy achievement: An integrative review. *Reading Research Quarterly*, *45*, 464-487. <http://dx.doi.org/10.1598/RRQ.45.4.5>
- Carlisle, J. F., & Beeman, M. M. (2000). The effects of language of instruction on the reading and writing achievement of first-grade Hispanic children. *Scientific Studies of Reading*, *4*, 331-353. http://dx.doi.org/10.1207/S1532799XSSR0404_5
- Carlisle, J. F., & Feldman, L. B. (1995). Morphological awareness and early reading achievement. In L. Feldman (Ed.), *Morphological aspects of language processing* (pp. 131-154). Hillsdale, NJ: Lawrence Erlbaum.
- Carlisle, J. F., & Fleming, J. (2003). Lexical processing of morphologically complex words in the elementary years. *Scientific Studies of Reading*, *7*, 239-253. http://dx.doi.org/10.1207/S1532799XSSR0703_3
- Carlisle, J. F., & Stone, C. A. (2003). The effects of morphological structure on children's reading of derived words in English. In E. M. Assink & D. Sandra (Eds.), *Reading complex words: Cross-language studies* (pp. 27-52). New York, NY: Kluwer Academic.
- Carlson, S. M., & Meltzoff, A. N. (2008). Bilingual experience and executive functioning in young children. *Developmental Science*, *11*, 282-298. <http://dx.doi.org/10.1111/j.1467-7687.2008.00675.x>
- Carroll, J. M., Snowling, M. J., Hulme, C., & Stevenson, J. (2003). The development of phonological awareness in preschool children. *Developmental Psychology*, *39*, 913-923. <http://dx.doi.org/10.1037/0012-1649.39.5.913>
- Carter, R. (1997). *Investigating English discourse: Language, literacy and literature*. London, UK: Routledge.
- Carter, R. (2003). Key concepts in ELT: Language awareness. *English Language Teaching Journal*, *57*, 64-65.
- Casalis, S., & Louis-Alexandre, M. F. (2000). Morphological analysis, phonological analysis and learning to read French: A longitudinal study. *Reading and Writing: An Interdisciplinary Journal*, *12*, 303-335. <http://dx.doi.org/10.1023/A:1008177205648>
- Cassar, M., & Treiman, R. (1997). The beginnings of orthographic knowledge: Children's knowledge of double letters in words. *Journal of Educational Psychology*, *89*, 631-644. <http://dx.doi.org/10.1037/0022-0663.89.4.631>

- Castles, A., & Nation, K. (2006). How does orthographic learning happen? In S. Andrews (Ed.), *From inkmarks to ideas: Challenges and controversies about word recognition and reading* (pp. 151-179). London, UK: Psychology Press.
- Cazden, C. B. (1968). The acquisition of nouns and verb inflections. *Child Development*, 39, 433-448. <http://dx.doi.org/10.2307/1126956>
- Chambré, S. J., Ehri, L. C., & Ness, M. (2017). Orthographic facilitation of first graders' vocabulary learning: Does directing attention to print enhance the effect? *Reading and Writing*, 30, 1137-1156. <http://dx.doi.org/10.1007/s11145-016-9715-z>
- Chan, S. H., & Abdullah, A. N. (2004). Exploring affect in ESL writing behaviour. *The English Teacher*, 33, 1-13. Retrieved from <http://www.melta.org.my/ET/2004/2004-1.pdf>
- Chan, S. H., & Ain, N. A. (2015). Bilingualism in Malaysia: Language education policy and local needs. *Pertanika Journal of Social Sciences & Humanities*, 23, 55-70.
- Chan, S. H., & Wong, B. E. (2004). Assessing oral skills of pre-tertiary students: The nature of the communicative act. *Proceedings of the International Conference on English Instruction and Assessment* (pp. 33-48). Taiwan: National Chung Cheng University.
- Chang, C. M., Wagner, R. K., Muse, A., W. Y. B., & Chow, H. S. (2005). The role of morphological awareness in children's vocabulary acquisition in England. *Applied Psycholinguistics*, 26, 415-435.
- Chang, B. M. (2011). The roles of English language education in Asian context. *Journal of Pan-Pacific Association of Applied Linguistics*, 15, 191-206.
- Chard, D. J., & Dickson, S. V. (1999). Phonological awareness: Instructional and assessment guidelines. *Intervention in School and Clinic*, 34, 261-270. <https://dx.doi.org/10.1177/105345129903400502>
- Chanawongsa, W. (1986). *Cohesion in Thai* (Unpublished doctoral dissertation). Georgetown University, United States.
- Charanjit, K. S. S., Amreet, K. J. S., Nur Qistina, A. R., & Ravintha, T. (2017). Grammar errors made by ESL tertiary students in writing. *English Language Teaching*, 10, 16-27. <http://dx.doi.org/10.5539/elt.v10n5p16>
- Chenowith, N. A., & Hayes, J. R. (2001). Fluency in writing: Generating text in L1 and L2. *Written Communication*, 18, 80-98. <http://dx.doi.org/10.1177/0741088301018001004>
- Chiappe, P., Siegel, L. S., & Gottardo, A. (2002). Reading-related skills of kindergartners from diverse linguistic backgrounds. *Applied Psycholinguistics*, 23, 95-116. <http://dx.doi.org/10.1017/S014271640200005X>
- Chomsky, N. (1964). *Aspects of the theory of syntax*. Massachusetts Institute of Tech Cambridge Research Lab of Electronics.

- Chuang, H. K. (2010). *Cross-language transfer of reading ability: Evidence from Taiwanese ninth-grade adolescents* (Unpublished doctoral dissertation). Texas A&M University: United States.
- Cisero, C. A., & Royer, J. M. (1995). The development and cross-language transfer of phonological awareness. *Contemporary Educational Psychology*, 20, 275-303. <http://dx.doi.org/10.1006/ceps.1995.1018>
- Cummins, J. (1991). Interdependence of first-and second-language proficiency in bilingual children. Language processing in bilingual children. In E. Bialystok (Ed.), *Language processing in bilingual children* (pp. 70-89). New York, NY: Cambridge University Press.
- Chittravelu, N., Sithamparam, S., & Teh, S. C. (2005). *ELT methodology: Principles and practice*. Kuala Lumpur, Malaysia: Penerbit Fajar Bakti.
- Clark, B. (2009). Austronesian languages. In B. Comrie (Ed.), *The World major languages* (pp. 781-790). London, UK: Routledge.
- Clark, T. L. (2017). *The connection among morphological, phonological, orthographic, and processing skills, and reading* (Unpublished doctoral dissertation). University of Washington, United States.
- Clinton, A., Quiñones, M., & Christo, C. (2011). Phonological awareness: Cross-linguistic comparisons with a focus on Spanish. *Interamerican Journal of Psychology*, 45, 263-270.
- Clynes, A. (1997). On the Proto-Austronesian “diphthongs”. *Oceanic Linguistics*, 36, 347-361. <https://dx.doi.org/10.2307/3622989>
- Clynes, A., & Deterding, D. (2011). Standard Malay (Brunei). *Journal of the International Phonetic Association*, 41, 259-268. <https://dx.doi.org/10.1017/S002510031100017X>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.
- Cohen, L., Manion, L., & Morrison, K. (2013). *Research methods in education*. London, UK: Routledge.
- Coker, D. L. (2006). Impact of first-grade factors on the growth and outcomes of urban schoolchildren’s primary-grade writing. *Journal of Educational Psychology*, 98, 471-488.
- Cook, V. J. (1991). The poverty-of-the-stimulus argument and multi-competence. *Second Language Research*, 7, 103-117. <https://dx.doi.org/10.1177/026765839100700203>
- Cook, V. J. (1994). The metaphor of access to universal grammar. In N. Ellis (Ed.). *Implicit learning and language* (pp. 477-502). London, UK: Academic Press.
- Cook, V. J. (Ed.) (2002). *Portraits of the L2 user*. Clevedon, UK: Multilingual Matters.

- Cook, V. J. (Ed.) (2003). *Effects of the second language on the first*. Clevedon, UK: Multilingual Matters.
- Cook, V. J. (2007a). Multi-competence: Black-hole or worm-hole for second language acquisition research. In Z. Han (Ed.), *Understanding second language process* (pp. 16-26). Clevedon, UK: Multilingual Matters.
- Cook, V. J. (2007b). The goals of ELT: Reproducing native-speakers or promoting multi-competence among second language users? In J. Cummins & C. Davison (Eds.), *Handbook on English language teaching* (pp. 237-248). Dordrecht, The Netherlands: Kluwer Academic.
- Corder, S. P. (1967). The significance of learner's errors. *IRAL-International Review of Applied Linguistics in Language Teaching*, 5, 161-170.
<http://dx.doi.org/10.1515/iral.1967.5.1-4.161>
- Corder, S. P. (1983). A role for the mother tongue. In S. Gass & L. Selinker (Eds.), *Language transfer in language learning* (pp. 85-97). Rowley, MA: Newbury House.
- Costa, L. J. C. (2008). *Predictors of students at-risk for writing problems: The development of written expression for early elementary school children* (Unpublished masters' dissertation). University of North Carolina, USA.
- Coxhead, A., & Byrd, P. (2007). Preparing writing teachers to teach the vocabulary and grammar of the academic prose. *Journal of Second Language Writing*, 16, 129-147.
<https://dx.doi.org/10.1016/j.jslw.2007.07.002>
- Coxhead, A. (1998). *An academic word list* (English Language Institute Occasional Publication No. 18). Wellington, New Zealand: Victoria University of Wellington.
- Coxhead, A. (2000). A new academic word list. *TESOL Quarterly*, 34, 213-38.
<https://dx.doi.org/10.2307/3587951>
- Creswell, J. W. (2009). *Research design: Qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.
- Crossley, S. A., & McNamara, D. S. (2009). Computational assessment of lexical differences in L1 and L2 writing. *Journal of Second Language Writing*, 18, 119-135.
<https://dx.doi.org/10.1016/j.jslw.2009.02.002>
- Crossley, S. A., & McNamara, D. S. (2012). Predicting second language writing proficiency: The roles of cohesion and linguistic sophistication. *Journal of Research in Reading*, 35, 115-135. <https://dx.doi.org/10.1111/j.1467-9817.2010.01449.x>
- Crossley, S. A., Weston, J. L., McLain Sullivan, S. T., & McNamara, D. S. (2011). The development of writing proficiency as a function of grade level: A linguistic analysis. *Written Communication*, 28, 282-311. <https://dx.doi.org/10.1177/0741088311410188>
- Culligan, B. (2015). A comparison of three test formats to assess word difficulty. *Language Testing*, 32, 503-520. <https://dx.doi.org/10.1177/0265532215572268>

- Cumming, A. (1989). Writing expertise and second-language proficiency. *Language Learning*, 39, 81-135. <https://dx.doi.org/10.1111/j.1467-1770.1989.tb00592.x>
- Cummins, J. (1983). Language proficiency and academic achievement. In J. W. Oller (Ed.), *Issues in language testing research* (pp. 108-130). Rowley, MA: Newbury.
- Cumming, A., Eouanzoui, K., Gentil, G., & Yang, L. (2004). Scaling changes in learners' goals for writing improvement over an ESL course. In D. Albrechtsen, K. Haastrup, & B. Henriksen (Eds.), *Angles on the English-Speaking World: Writing and vocabulary in foreign language acquisition* (pp. 35-49). Denmark: Museum Tusulanum Press.
- Cunningham, A. E., Perry, K. E., & Stanovich, K. E. (2001). Converging evidence for the concept of orthographic processing. *Reading and Writing*, 14, 549-568. <http://dx.doi.org/10.1023/A:1011100226798>
- Cunningham, A. E., & Stanovich, K. E. (1990). Assessing print exposure and orthographic processing skill in children: A quick measure of reading experience. *Journal of Educational Psychology*, 82, 733-740. <http://dx.doi.org/10.1037/0022-0663.82.4.733>
- Cunningham, A. E., & Stanovich, K. E. (1993). Children's literacy environments and early word recognition subskills. *Reading and Writing*, 5, 193-204. <http://dx.doi.org/10.1007/BF01027484>
- Curinga, R. (2014). *The effect of morphological awareness on reading comprehension: A study with adolescent Spanish-English emergent bilinguals* (Unpublished doctoral dissertation). The City University of New York, United States.
- Dahaman, I. (2000). *Pedoman ejaan rumi Bahasa Melayu*. Kuala Lumpur: Dewan Bahasa dan Pustaka, Malaysia.
- D'Angiulli, A., Siegel, L. S., & Serra, E. (2001). The development of reading in English and Italian in bilingual children. *Applied Psycholinguistics*, 22, 479-507. <http://dx.doi.org/10.1017/S0142716401004015>
- Daller, H., & Phelan, D. (2007). What is in a teacher's mind? Teacher ratings of EFL essays and different aspects of lexical richness. In H. Daller, J. Milton, & J. Treffers-Daller (Eds.), *Modelling and assessing vocabulary knowledge* (pp. 234-244). Cambridge, UK: Cambridge University Press.
- Daller, H., & Xue, H. (2007). Lexical richness and the oral proficiency of Chinese EFL students. In H. Daller, J. Milton, & J. Treffers-Daller (Eds.), *Modelling and assessing vocabulary knowledge* (pp. 150-164). Cambridge, UK: Cambridge University Press.
- Darmi, R., & Albion, P. (2013, July). English language in the Malaysian education system: Its existence and implications. In *Proceedings of the 3rd Malaysian Postgraduate Conference* (MPC 2013) (pp. 175-183). Education Malaysia.
- Darus, S., & Khor, H. C. (2009). Common errors in written English essays of form one Chinese students: A case study. *European Journal of Social Sciences*, 10, 242-253.

- Darus, S., & Subramaniam, K. (2009). Error analysis of the written English essays of secondary school students in Malaysia: A case study. *European Journal of Social Sciences*, 8, 483-495.
- Dastjerdi, V. H., & Samian, H. S. (2011). Quality of Iranian EFL learners' argumentative essays: Cohesive devices in focus. *Mediterranean Journal of Social Sciences*, 2, 65-76.
- David, D. (2013). *The development of language and reading skills in emerging bilingual children* (Unpublished doctoral dissertation). University of Toronto, Canada.
- David, M. K., & Govindasamy, S. (2006). The construction of national identity and globalization in multilingual Malaysia. In A. B. M. Tsui & J. W. Tollefson (Eds.), *Language policy, culture and identity in Asian contexts* (pp. 55-72). Mahwah, NJ: Lawrence Erlbaum.
- Deane, P., Odendahl, N., Quinlan, T., Fowles, M., Welsh, C., & Bivens-Tatum, J. (2008). *Cognitive models of writing: Writing proficiency as a complex integrated skill* (Research Report ETS No. RR-08-55). Princeton: Education Testing Service. <https://dx.doi.org/10.1002/j.2333-8504.2008.tb02141.x>
- Deacon, S. H., & Kirby, J. R. (2004). Morphological awareness: Just "more phonological"? The roles of morphological and phonological awareness in reading development. *Applied Psycholinguistics*, 25, 223-238. <http://dx.doi.org/10.1017/S0142716404001110>
- Deacon, S. H., Wade-Woolley, L., & Kirby, J. R. (2009). Flexibility in young second-language learners: Examining the language specificity of orthographic processing. *Journal of Research in Reading*, 32, 215-229. <https://dx.doi.org/10.1111/j.1467-9817.2009.01392.x>
- DeFrancis, J. (1989). *Visible speech: The diverse oneness of writing systems*. Honolulu: University of Hawaii Press.
- Dehghan, F., & Razmjoo, S. A. (2017). Developing a model for disciplinary writing expertise in postgraduate teaching English as a foreign language programs. *Journal of Recent Research in English Language Studies*, 4, 69-87.
- De Larios, J. R., Murphy, L., & Marin, J. (2002). Critical examination of L2 writing process research. In S. Ransdell & M. L. Barbier (Eds.), *New directions for research in L2 writing* (pp. 11-48). Dordrecht, The Netherlands: Kluwer Academic.
- De Sousa, D. S., Greenop, K., & Fry, J. (2010). The effects of phonological awareness of Zulu-speaking children learning to speak in English: A study of cross-language transfer. *British Journal of Educational Psychology*, 80, 517-533.
- Deterding, D., & Ishamina, A. (2017). Brunei Malay. *Journal of the International Phonetic Association*, 47, 99-108. <https://dx.doi.org/10.1017/S0025100316000189>
- Detey, S., & Nespoulous, J. L. (2008). Can orthography influence second language syllabic segmentation? Japanese epenthetic vowels and French consonantal clusters. *Lingua*, 118, 66-81. <https://dx.doi.org/10.1016/j.lingua.2007.04.003>

- Derwing, B. L. (1976). Morpheme recognition and the learning of rules for derivational morphology. *Canadian Journal of Linguistics*, 21, 38-66.
<https://dx.doi.org/10.1017/S0008413100008045>
- Diamond, L., & Gutlohn, L. (2006). *Vocabulary handbook*. Berkeley, CA: Consortium on Reading Excellence.
- Dickinson, D. K., McCabe, A., Clark-Chiarelli, N., & Wolf, A. (2004). Cross-language transfer of phonological awareness in low-income Spanish and English bilingual preschool children. *Applied Psycholinguistics*, 25, 323-347.
<https://dx.doi.org/10.1017/S0142716404001158>
- Dijkstra, T., Grainger, J., & Van Heuven, W. J. (1999). Recognition of cognates and interlingual homographs: The neglected role of phonology. *Journal of Memory and Language*, 41, 496-518.
- DiStefano, P., & Killion, J. (1984). Assessing writing skills through a process approach. *English Education*, 16, 203-207.
- Dixon, L. Q., Zhao, J., & Joshi, R. M. (2010). Influence of L1 orthography on spelling English words by bilingual children: A natural experiment comparing syllabic, phonological, and morphosyllabic first languages. *Learning Disability Quarterly*, 33, 211-221.
- Dollaghan, C., & Campbell, T. E. (1998). Nonword repetition and child language impairment. *Journal of Speech, Language, and Hearing Research*, 41, 1136-1146.
- Dost, I. N., & Bohloulzadeh, G. (2017). A review of contrastive analysis hypothesis with a phonological and syntactical view: A cross-linguistic study. *Journal of Applied Linguistics and Language Research*, 4, 165-173.
<http://dx.doi.org/10.5750/bjll.v10i0.1482>
- dos Santos, M. T. M., & Befi-Lopes, D. M. (2012). Vocabulary, phonological awareness and rapid naming: Contributions for spelling and written production. *Jornal da Sociedade Brasileira de Fonoaudiologia*, 24, 269-275. <http://dx.doi.org/10.1590/S2179-64912012000300013>
- Dovey, T. (2010). Facilitating writing from sources: A focus on both process and product. *Journal of English for Academic Purposes*, 9, 45-60.
- Du, Y. (2016). *The use of first and second language in Chinese University EFL classrooms*. Singapore: Springer.
- Dulay, H. C., & Burt, M. K. (1974). Natural sequences in child second language acquisition. *Language Learning*, 24, 37-53. <https://dx.doi.org/10.1111/j.1467-1770.1974.tb00234.x>
- Dulay, H. C., & Burt, M. (1975). Creative construction in second language learning and teaching. In M. Burt & H. C. Dulay (Eds.), *New directions in second language learning, teaching, and bilingual education* (pp. 21-32). Washington, DC: Teachers of English to Speakers of Other Languages.

- Duncan, L. G., Castro, S. L., Defior, S., Seymour, P. H., Baillie, S., Leybaert, J., ... & Lund, R. (2013). Phonological development in relation to native language and literacy: Variations on a theme in six alphabetic orthographies. *Cognition*, 127, 398-419. <https://dx.doi.org/10.1016/j.cognition.2013.02.009>
- Durgunoglu, A. Y. (2002). Cross-linguistic transfer in literacy development and implications for language learners. *Annals of Dyslexia*, 52, 189-204. <http://dx.doi.org/10.1007/s11881-002-0012-y>
- Durgunoglu, A. Y., & Roediger, H. L. (1987). Test differences in accessing bilingual memory. *Journal of Memory and Language*, 26, 377-391. [http://dx.doi.org/10.1016/0749-596X\(87\)90097-0](http://dx.doi.org/10.1016/0749-596X(87)90097-0)
- Durgunoglu, A., Nagy, W., & Hancin-Bhatt, B. (1993). Cross-language transfer of phonological awareness. *Journal of Educational Psychology*, 85, 453-465. <http://dx.doi.org/10.1037/0022-0663.85.3.453>
- Eades, D., & Hajek, J. (2006). Gayo. *Journal of the International Phonetic Association*, 36, 107-115. <http://dx.doi.org/10.1017/S0025100306002416>
- East, M. (2007). Bilingual dictionaries in tests of L2 writing proficiency: Do they make a difference? *Language Testing*, 24, 331-353. <https://dx.doi.org/10.1177/0265532207077203>
- East, M. (2009). Evaluating the reliability of a detailed analytic scoring rubric for foreign language writing. *Assessing Writing*, 14, 88-115. <https://dx.doi.org/10.1016/j.asw.2009.04.001>
- Edelsky, C., Hudelson, S., Flores, B., Barkin, F., Altwerger, B., & Jilbert, K. (1983). Semilingualism and language deficit. *Applied Linguistics*, 4, 1-22. <https://dx.doi.org/10.1093/applin/4.1.1>
- Ehri, L. C. (1991). The development of reading and spelling in children: An overview In M. Snowling & M. Thomson (Eds.), *Dyslexia: Integrating theory and practice* (pp. 63-79). England, UK: Whurr.
- Ehri, L. C. (1997). Learning to read and learning to spell are one and the same, almost. In C. Perfetti, L. Rieben, & Fayol, M. (Eds.), *Learning to spell: Research, theory and practice across languages* (pp. 237-269). Mahwah, NJ: Erlbaum.
- Ehri, L. C. (1998). Research on learning to read and spell: A personal-historical perspective. *Scientific Studies of Reading*, 2, 97-114. http://dx.doi.org/10.1207/s1532799xssr0202_1
- Ehri, L. C. (2000). Learning to read and learning to spell: Two sides of a coin. *Topics in Language Disorders*, 20, 19-36. <http://dx.doi.org/10.1097/00011363-200020030-00005>
- Elder, C., & O'Loughlin, K. (2003). Investigating the relationship between intensive English language study and band score gain on IELTS. *IELTS Research Reports*, 4, 207-254.

- Ellis, R. (1990). Grammaticality judgments and learner variability. In R. Burmeister & P. Rounds (Eds.), *Variability in second language acquisition: Proceedings of the tenth meeting of the second language research forum*, (pp. 25-60). Eugene, OR: University of Oregon, Department of Linguistics.
- Ellis, R. (1994). *The study of second language acquisition*. Oxford, UK: Oxford University Press.
- Ellis, R. (1997). *Second language acquisition*. Oxford, UK: Oxford University Press.
- Ellis, R. (2004). The definition and measurement of L2 explicit knowledge. *Language Learning*, 54, 227-275. <http://dx.doi.org/10.1111/j.1467-9922.2004.00255.x>
- El-Imam, Y. A., & Don, Z. M. (2005). Rules and algorithms for phonetic transcription of standard Malay. *IEICE Transactions on Information and Systems*, 88, 2354-2372.
- Elia J., Kardina, K., & Nazirah, H. (2006). *Mainstream English I and II. Proficiency course: Test score performance, analysis, correlation and predictability*. (Unpublished Research). Institute of Research and Development Centre (IRDC), University Mara Terengganu, Malaysia.
- Eisterhold, J. C. (1990). Reading-writing connections: Toward a description for second language learners. In B. Kroll (Ed.), *Second language writing* (pp. 88-101). New York, NY: Cambridge University Press.
- Eng, W. B. (2012). Acquisition of English tense and agreement morphology by L1 Malay and L1 Chinese speakers. *3L: Southeast Asian Journal of English Language Studies*, 18, 5-14.
- Engber, C. A. (1995). The relationship of lexical proficiency to the quality of ESL compositions. *Journal of Second Language Writing*, 4, 139-155. [https://dx.doi.org/10.1016/1060-3743\(95\)90004-7](https://dx.doi.org/10.1016/1060-3743(95)90004-7)
- Englert, C. S., Mariage, T. V., & Dunsmore, K. (2006). Tenets of sociocultural theory in writing instruction research. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 208-221). New York, NY: The Guilford Press.
- Erdener, V. D., & Burnham, D. (2005). The role of audiovisual speech and orthographic information in nonnative speech production. *Language Learning*, 55, 191-228. <https://dx.doi.org/10.1111/j.0023-8333.2005.00303.x>
- Erdogan, O. (2011). Relationship between the phonological awareness skills and writing skills of the first year students at primary school. *Educational Sciences: Theory and Practice*, 11, 1506-1510.
- Faerch, C., & Kasper, G. (1987). Perspectives on language transfer. *Applied Linguistics*, 8, 111-36.
- Fang, L. Y. (2008). *Speak standard Malay: A beginner's guide* (Rev. ed.). Singapore: Marshall Cavendish.

- Fan, M. (2000). How big is the gap and how to narrow it? An investigation into the active and passive vocabulary knowledge of L2 learners. *RELC Journal*, 31, 105-119. <https://dx.doi.org/10.1177/003368820003100205>
- Fathman, A., & Whalley, E. (1990). Teacher response to student writing: Focus on form versus content. In B. Kroll (Ed.), *Second language writing* (pp. 178-190). Cambridge, UK: Cambridge University Press.
- Fatimawati, I. (2012). *A study on the relationship between Malaysian learners' self-concept in academic writing and their engagement in one higher learning institution* (Unpublished doctoral dissertation). Massey University, New Zealand.
- Faizal, S. S. B. (2009). *Lexical variables in Malay visual word recognition* (Unpublished doctoral dissertation). National University of Singapore, Singapore.
- Fearn, L., & Farnan, N. (2007). When is a verb? Using functional grammar to teach writing. *Journal of Basic Writing*, 26, 63-87.
- Feldman, L. B. (1991). The contribution of morphology to word recognition. *Psychological Research*, 53, 33-41. <http://dx.doi.org/10.1007/BF00867330>
- Ferris, D. R. (2004). The “grammar correction” debate in L2 writing: Where are we, and where do we go from here? (and what do we do in the meantime...?). *Journal of Second Language Writing*, 13, 49-62. <http://dx.doi.org/10.1016/j.jslw.2004.04.005>
- Ferris, D. R., & Roberts, B. (2001). Error feedback in L2 writing classes: How explicit does it need to be? *Journal of Second Language Writing*, 10, 161-184.
- Fern, N. P., & Jiar, Y. K. (2013). Lexical properties and early literacy acquisition of kindergarten children in Malay orthography. *Journal of Education and Practice*, 4, 139-151.
- Fern, N. P., & Jiar, Y. K. (2014). Preschool teachers' beliefs and practices on early literacy instruction. *Sains Humanika*, 2, 139-146.
- Flege, J. E. (1995). Second-language speech learning: Theory, findings, and problems. In W. Strange (Ed.), *Speech perception and linguistic experience: Issues in cross-linguistic research* (pp. 233-277). Timonium, MD: York Press.
- Flower, L., & Hayes, J. R. (1981). A Cognitive Process of Writing. *College Composition and Communication*, 32, 365-387. <http://dx.doi.org/10.2307/356600>
- Figueredo, L. (2006). Using the known to chart the unknown: A review of first-language influence on the development of English-as-a-second-language spelling skill. *Reading and Writing*, 19, 873-905. <http://dx.doi.org/10.1007/s11145-006-9014-1>
- Fisiak, J. (1981). *Contrastive linguistic and the language teacher*. Oxford, UK: Oxford Pergamon Press
- Fink, A., & Kosecoff, J. (1985). *How to conduct surveys: A step-by-step guide*. Beverly Hills, CA: Sage.

- Folse, K. S. (2006). The effect of type of written exercise on L2 vocabulary retention. *TESOL Quarterly*, 40, 273-293. <https://dx.doi.org/10.2307/40264523>
- Foo, B., & Richards, C. (2004). English in Malaysia. *RELC Journal*, 35, 229-240. <https://dx.doi.org/10.1177/003368820403500209>
- Fracasso, L. E., Bangs, K., & Binder, K. S. (2016). The contributions of phonological and morphological awareness to literacy skills in the adult basic education population. *Journal of Learning Disabilities*, 49, 140-151. <https://dx.doi.org/10.1177/0022219414538513>
- Fraenkel, J. R., & Wallen, N. E. (2008). *How to design and evaluate research in education* (7th ed.). New York, NY: McGraw-Hill.
- Francis, N. (2000). The shared conceptual system and language processing in bilingual children: Findings from literacy assessment in Spanish Náhuatl. *Applied Linguistics*, 21, 170-204. <https://dx.doi.org/10.1093/applin/21.2.170>
- Frederiksen, J. R. (1982). A componential theory of reading skills and their interactions. In R. J. Mисlevy (Ed.), *Advances in the psychology of human intelligence* (pp. 125-180). Hillsdale, NJ: Lawrence Erlbaum.
- Friedlander, A. (1990). Composing in English: Effects of a first language on writing in English as a second language. In B. Kroll (Ed.), *Second language writing: Research insights for the classroom* (pp. 109-125). New York, NY: Cambridge University Press.
- Fromkin, V., Rodman, R., & Hyams, N. (2003). *An Introduction to language* (7th ed.). Boston, MA: Michael Rosenberg.
- Fu, D. (2003). *An island of English: Teaching ESL in Chinatown*. Portsmouth, NH: Heinemann.
- Fujieda, Y. (2006). A brief historical sketch of second language writing studies: A retrospective. *Maebashi Kyoai Gakuen College Journal*, 6, 59-72.
- Furr, R. M., & Bacharach, V. R. (2008). *Psychometrics: An introduction*. Thousand Oaks, CA: Sage.
- Galambos, S. J., & Goldin-Meadow, S. (1990). The effects of learning two languages on levels of metalinguistic awareness. *Cognition*, 34, 1-56.
- Gan, S. H. (2013). *Morphological awareness in the reading comprehension ability of a dyslexic adolescent* (Unpublished masters' dissertation). University of Malaya, Malaysia.
- Garcia, G. E. (1991). Factors influencing the English reading test performance of Spanish-speaking Hispanic children. *Reading Research Quarterly*, 26, 371-392. <http://dx.doi.org/10.2307/747894>

- Gardiner, M., Kearns, H., Newsom, G., Dent, E. B., Newnham-Kanas, C., Irwin, J., & Schmitt, N. (2012). The ABCDE of writing: Coaching high-quality high-quantity writing. *International Coaching Psychology Review*, 7, 247-259.
- Gardner, D. (2007). Children's immediate understanding of vocabulary: Contexts and dictionary definitions. *Reading Psychology*, 28, 331-373.
- Gass, S. (1994). The reliability of second-language grammaticality judgments. In E. Tarone, S. Gass, & A. Cohen (Eds.), *Research methodology in second language acquisition* (pp. 303-322). Hillsdale, NJ: Lawrence Erlbaum.
- Gass, S., & Selinker, L. (2008). *Second language acquisition: An introductory course* (3rd ed.). New York, NY: Routledge.
- Gautam, S. (2017). *Predictors of Punjabi, Hindi and English reading comprehension among multilingual children in the Punjab region of India* (Unpublished doctoral dissertation). University of Canterbury, New Zealand.
- Gentry, J. R., & Gillet, J. W. (1993). *Teaching kids to spell*. Portsmouth, NH: Heinemann.
- Geva, E., & Siegel, L. S. (2000). Orthographic and cognitive factors in the concurrent development of basic reading skills in two languages. *Reading and Writing*, 12, 1-30. <http://dx.doi.org/10.1023/A:1008017710115>
- Ghabool, N., Mariadass, M. E., & Kashef, S. H. (2012). Investigating Malaysian ESL students' writing problems on conventions, punctuation, and language use at secondary school level. *Journal of Studies in Education*, 2, 130-143. <http://dx.doi.org/10.5296/jse.v2i3.1892>
- Ghalib, T. K., & Al-Hattami, A. A. (2015). Holistic versus analytic evaluation of EFL writing: A case study. *English Language Teaching*, 8, 225-236. <http://dx.doi.org/10.5539/elt.v8n7p225>
- Ghuma, M. (2011). *The transferability of reading strategies between L1 (Arabic) and L2 (English)* (Unpublished doctoral dissertation). Durham University, England.
- Glushko, R. J. (1979). The organization and activation of orthographic knowledge in reading aloud. *Journal of Experimental Psychology: Human Perception and Performance*, 5, 674-691. <http://dx.doi.org/10.1037/0096-1523.5.4.674>
- Gilakjani, A. P. (2012). The significance of pronunciation in English language teaching. *English Language Teaching*, 5, 96-107.
- Gill, K. G. (2002). *English language challenges for Malaysia*. Kuala Lumpur, Malaysia: University Putera Malaysia.
- Gill, S. K. (2004). Medium-of-instruction policy in higher education in Malaysia: Nationalism versus internationalization. In J. W. Tollefson & A. D. M. Tsui (Eds.), *Medium of instruction policies: Which agenda? Whose agenda?* (pp. 135-152). Mahwah, NJ: Lawrence Erlbaum.

- Gill, S. K. (2005). Language policy in Malaysia. *Language Policy*, 4, 241-260.
<http://dx.doi.org/10.1007/s10993-005-7859-9>
- Gimson, A. C. (Ed.). (1989). *An introduction to the pronunciation of English*. New York, NY: Routledge.
- Gomez, C., & Reason, R. (2002). Cross-linguistic transfer of phonological skills: A Malaysian perspective. *Dyslexia*, 8, 22-33. <http://dx.doi.org/10.1002/dys.195>
- Goode, D. (2000). Creating a context for developmental English. *Teaching English in the Two Year College*, 27, 270-277.
- Goswami, U. (1999). Causal connections in beginning reading: The importance of rhyme. *Journal of Research in Reading*, 22, 217-240. <https://dx.doi.org/10.1111/1467-9817.00087>
- Goswami, U. (2000). Phonological representations, reading development and dyslexia: Towards a cross-linguistic theoretical framework. *Dyslexia*, 6, 133-151.
[https://dx.doi.org/10.1002/\(SICI\)1099-0909\(200004/06\)6:2<133::AID-DYS160>3.0.CO;2-A](https://dx.doi.org/10.1002/(SICI)1099-0909(200004/06)6:2<133::AID-DYS160>3.0.CO;2-A)
- Goswami, U. (2008). Principles of learning, implications for teaching: A cognitive neuroscience perspective. *Journal of Philosophy of Education*, 42, 381-399.
<https://dx.doi.org/10.1111/j.1467-9752.2008.00639.x>
- Grabe, W. (2001). Notes towards a theory of second language writing. In T. Silva & P. K. Matsuda (Eds.), *On second language writing* (pp. 39-58). Mahwah, NJ: Erlbaum.
- Grabe, W., & Kaplan, R. B. (1989). Writing in a second language: Contrastive rhetoric. In D. M. Johnson & D. H. Roen (Eds.), *Richness in writing: Empowering ESL students* (pp. 263-283). New York, NY: Longman.
- Grabe, W., & Kaplan, R. B. (1996). *Theory & practice of writing: An applied linguistic perspective*. London, UK: Longman.
- Graham, S., & Harris, K. R. (1993). Self-regulated strategy development: Helping students with learning problems develop as writers. *Elementary School Journal*, 94, 169-181.
<http://dx.doi.org/10.1086/461758>
- Graham, S., & Perin, D. (2007). *Writing next: Effective strategies to improve writing of adolescents in middle and high schools*. New York, NY: Carnegie Corporation of New York.
- Grant, L., & Ginther, A. (2000). Using computer-tagged linguistic features to describe L2 writing differences. *Journal of Second Language Writing*, 9, 123-145.
[http://dx.doi.org/10.1016/S1060-3743\(00\)00019-9](http://dx.doi.org/10.1016/S1060-3743(00)00019-9)
- Grobe, C. (1981). Syntactic maturity, mechanics, and vocabulary as predictors of quality ratings. *Research in the Teaching of English*, 15, 75-85.
- Gu, Y. (2003a). Vocabulary learning in second language: Person, task, context and strategies. *TESL-EJ*, 7, 1-26.

- Gu, Y. (2003b). Fine brush and freehand: The vocabulary-learning art of two successful Chinese EFL learners. *TESOL Quarterly*, 37, 73-104.
<https://dx.doi.org/10.2307/3588466>
- Guo, L., Crossley, S. A., & McNamara, D. S. (2013). Predicting human judgments of essay quality in both integrated and independent second language writing samples: A comparison study. *Assessing Writing*, 18, 218-238.
<https://dx.doi.org/10.1016/j.asw.2013.05.002>
- Gupta, A. F. (2003). The imagined learner of Malay. In J. M. Dewarle, A. Housen, & L. Wei (Eds.), *Bilingualism: Beyond basic principles* (pp. 141-173). Clevedon, UK: Multilingual Matters.
- Gupta, R. (1998). Writing with a different tool. In C. S. Ward & W. A. Renandya (Eds.), *Computers and language learning* (pp. 97-120). Singapore: SEAMEO Regional Language Centre.
- Gustilo, L., & Magno, C. (2012). Learners' errors and their evaluation: The case of Filipino ESL writers. *Philippine ESL Journal*, 8, 96-112.
- Halliday, M. A. K., & Hasan, R. (1976). *Cohesion in English*. English Language Series, London, UK: Longman.
- Haman, E., Wodniecka, Z., Marecka, M., Szewczyk, J., Białecka-Pikul, M., Otwinowska, A., & Kacprzak, A. (2017). How does L1 and L2 exposure impact L1 performance in bilingual children? Evidence from Polish-English migrants to the United Kingdom. *Frontiers in Psychology*, 8, 1-21. <https://dx.doi.org/10.3389/fpsyg.2017.01444>
- Hamdan, H. A. R. (1988). *Dasar pendeskripsian sistem fonologi Bahasa Melayu*. In M. O. Farid (Ed.), *Bunga rampai fonologi Bahasa Melayu*. Kuala Lumpur, Malaysia: Penerbit Fajar Bakti.
- Hamid, B. A., & Wijayasuria, B. (1998). *English grammar for Malaysians*. Bangi, Malaysia: Universiti Kebangsaan Malaysia.
- Hammerly, H. (1991). *Fluency and accuracy*. Clevedon, UK: Multilingual Matters.
- Hamp-Lyons, L. (1990). Second language writing: Assessment issues. In B. Kroll (Ed.), *Second language writing: Research insights for the classroom* (pp. 69-87). New York, NY: Cambridge University Press.
- Hamp-Lyons, L. (1991). Scoring procedures for ESL contexts. In L. Hamp-Lyons (Ed.), *Assessing second language writing in academic contexts* (pp. 241-276). Norwood, US: Ablex.
- Han, Y. (2000). Grammaticality judgment tests: How reliable and valid are they? *Applied Language Learning*, 11, 177-204.
- Hanewald, R. (2016). The impact of English on educational policies and practices in Malaysia. In R. Kirkpatrick (Ed.), *English language policy in Asia* (pp. 181-98). Heidelberg, Germany: Springer.

- Hao, Y., & Chi, R. (2013). The positive role of L1 in the acquisition of a second language. *Studies in Literature and Language*, 7, 45-48.
<https://dx.doi.org/10.3968/j.sll.1923156320130702.H862>
- Harmer, J. (1991). *The practice of English language teaching*. London, UK: Longman.
- Hashim, A. (1999). Crosslinguistic influence in the written English of Malay undergraduates. *Journal of Modern Languages*, 12, 60-76
- Hashim, A., & Lodge, K. R. (1988). The phonological processes of Malay: A preliminary statement. *UEA Papers in Linguistics*, 28, 1-28.
- Hassan, A. (1981). *Linguistik am untuk guru Bahasa Malaysia*. Kuala Lumpur, Malaysia: Penerbit Fajar Bakti.
- Hassan, A. (1993). *Tatabahasa pedagogi Bahasa Melayu*. Kuala Lumpur, Malaysia: Utusan.
- Hassan, A. (1996). *Isu-isu pembelajaran dan pengajaran Bahasa Malaysia*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Hassan, F., & Fauzee, S. N. (2002). Why aren't students proficient in ESL: The teachers' perspective. *The English Teacher*, 31, 107-123. Retrieved from
<http://www.melta.org.my/ET/2002/wp10.htm>
- Haswell, R. H. (2000). Documenting improvement in college writing: A longitudinal approach. *Written Communication*, 17, 307-352.
<https://dx.doi.org/10.1177/0741088300017003001>
- Haswell, R. H. (2005). Researching teacher evaluation of second language writing. In T. Silva & P. K. Matsuda (Eds.), *Second language writing research: Perspectives on the process of knowledge construction* (pp. 105-120). London, UK: Lawrence Erlbaum.
- Hatch, E., & Brown, C. (1995). *Vocabulary, semantics, and language education*. New York, NY: Cambridge University Press.
- Hayes, J. R., & Flower, L. S. (1980). Identifying the organization of writing processes. In L.W. Gregg & E. R. Steinberg (Eds.), *Cognitive processes in writing* (pp. 3-30). Hillsdale, NJ: Erlbaum.
- Hayes, J. R. (1996). A new framework for understanding cognition and affect in writing. In M. Levy & S. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences and applications* (pp. 1-27). Mahwah, NJ: Erlbaum.
- Heah, C. L. H. (1989). *The influence of English on the lexical expansion of Bahasa Malaysia*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Helms-Park, R., Tucker, S-K., & Dronjic, V. (2016). From proto-writing to multimedia literacy: Scripts and orthographies through the ages. In X. Chen Bumgardner, V. Dronjic, & R. Helms-Park (Eds.), *Second language reading: Psycholinguistic and cognitive perspectives* (pp. 1-31). New York, NY: Routledge.

- Hemphill, L., & Tivnan, T. (2008). The importance of early vocabulary for literacy achievement in high-poverty schools. *Journal of Education for Students Placed at Risk*, 13, 426-451. <https://dx.doi.org/10.1080/10824660802427710>
- Henriksen, B. (1999). Three dimensions of vocabulary development. *Studies in Second Language Acquisition*, 21, 303-317.
- Hijjo, N. F. (2013). A Morphosyntactic analysis on Malaysian secondary school students' essay writing in English class. *International Journal of Humanities and Social Science*, 3, 286-291.
- Hillocks, G., & Smith, M. W. (2003). Grammars and literacy learning. In J. Flood, J. Jensen, D. Lapp, & J. Squire (Eds.), *Handbook of research on teaching the English language arts* (2nd ed., pp. 721-737). Mahwah, NJ: Erlbaum.
- Hinkel, E. (1992). L2 tense and time reference. *TESOL Quarterly*, 26, 556-572.
- Hinkel, E. (1997). The past tense and temporal verb meanings in a contextual frame. *TESOL Quarterly*, 31, 289-314.
- Hinkel, E. (2002). Teaching grammar in writing classes: Tenses and cohesion. In E. Hinkel & S. Fotos (Eds.), *New perspectives on grammar teaching in second language classrooms* (pp. 181-198). Mahwah, NJ: Erlbaum.
- Hinkel, E. (2015). *Effective curriculum for teaching L2 writing: Principles and techniques*. New York, NY: Routledge.
- Hourani, T. M. (2008). *An analysis of the common grammatical errors in the English writing made by 3rd secondary male students in the eastern coast of the UAE*, (Unpublished masters' dissertation). Institute of Education, British University in Dubai, Dubai.
- Hsueh-Chao, M. H., & Nation, I. S. P. (2000). Unknown vocabulary density and reading comprehension. *Reading in a Foreign Language*, 13, 403-430.
- Hu, C. F. (2013). Predictors of reading in children with Chinese as a first language: A developmental and cross-linguistic perspective. *Reading and Writing*, 26, 163-187. <http://dx.doi.org/10.1007/s11145-012-9360-0>
- Huang, K. J. (2016). On bilinguals' development of metalinguistic awareness and its transfer to L3 learning: The role of language characteristics. *International Journal of Bilingualism*, 22, 330-349. <https://dx.doi.org/10.1177/1367006916681081>
- Hubbard, P. (1983). *A training course for TEFL*. Oxford, UK: Oxford University Press.
- Hughes, R., & Heah, C. (1990). *Common errors in English (Grammar exercises for Malaysians)*. Kuala Lumpur, Malaysia: Sun U Book.
- Hui, Y. A. N. (2010). The role of L1 transfer on L2 and pedagogical implications. *Canadian Social Science*, 6, 97-103.

- Hussien, A. M. (2014). The effect of learning English (L2) on learning of Arabic literacy (L1) in the primary school. *International Education Studies*, 7, 88-98. <http://dx.doi.org/10.5539/ies.v7n3p88>
- Huzaina, A. H. (2013). *Creativity in the Malaysian ESL curriculum: Policy and Implementation* (Unpublished doctoral dissertation). Imperial College London, England.
- Hyland, K., & Hyland, F. (2006). Feedback on second language students' writing. *Language Teaching*, 39, 83-101. <http://dx.doi.org/10.1017/S0261444806003399>
- Ibrahim, S., Yunus, M. A. M., & Khairi, M. T. M. (2017). Teaching academic writing for engineering students: Challenges and recommendations. *International Journal of Education, Psychology and Counselling*, 2, 160-169.
- Ien, L. K., Yunus, M. M., & Embi, M. A. (2017). Build me up: Overcoming writing problems among pupils in a rural primary school in Belaga, Sarawak, Malaysia. *Jurnal Pendidikan Humaniora*, 5, 1-7.
- Idris, A. (1996). Dialektologi sosial bandar: Satu pengenalan. *Jurnal Dewan Bahasa*, 40, 535-540.
- Idris, A., & Rosniah, M. (2013). Profiles of Malaysian Malay standard accent and identity values. *Pertanika Journal of Social Sciences & Humanities*, 21, 179-202.
- Isaacs, P. D. (2010). *Exploring the use of language cues for higher-order thinking skills in the MUET syllabus* (Unpublished masters' dissertation). University of Malaya, Malaysia.
- Ishak, T., & Mohamed, M. (2012). Pengajaran dan pembelajaran sains dan matematik dalam Bahasa Inggeris (PPSMI): Suatu isu berulang. *Jurnal Teknologi*, 53, 95-106.
- Ismail, S. A. A. (2010). ESP students' views of ESL grammar learning. *GEMA: Online Journal of Language Studies*, 10, 143-156.
- Ivaska, I., & Siitonen, K. (2017). Learner language morphology as a window to crosslinguistic influences: A key structure analysis. *Nordic Journal of Linguistics*, 40, 225-253. <https://doi.org/10.1017/S0332586517000129>
- Jacobs, H. L., Zingraf, S. A., Wormuth, D. R., Hartfiel, V. F., & Hughey, J. B. (1981). *Testing ESL composition: A practical approach*. Rowley, Massachusetts: Newbury House.
- Jafari, N., & Ansari, D. N. (2012). The effect of collaboration on Iranian EFL learners' writing accuracy. *International Education studies*, 5, 125-131.
- Jalaluddin, N. H., Awal, N. M., & Bakar, K. A. (2008). The mastery of English language among lower secondary school students in Malaysia: A linguistic analysis. *European Journal of Social Sciences*, 7, 106-119.
- James, C. (1980). *Contrastive Analysis*. Harlow, Essex: Longman.

- Jarvis, S. (2000). Methodological rigor in the study of transfer: Identifying L1 influence in them interlanguage lexicon. *Language learning*, 50, 245-309.
<https://dx.doi.org/10.1111/0023-8333.00118>
- Jarvis, S., & Pavlenko, A. (2008). *Crosslinguistic influence in language and cognition*. London, UK: Routledge.
- Javadi-Safa, A., Vahdany, F., & Sabet, M. K. (2013). A study of the relationship between Persian and English writing skills among adult EFL learners in Iran. *International Journal of Applied Linguistics and English Literature*, 2, 43-52.
- Jayapalan, K., & Pillai, S. (2011). The state of teaching and learning English pronunciation in Malaysia: A preliminary study. *Malaysian Journal of ELT Research*, 7, 63-81.
- Javed, M., Juan, W. X., & Nazli, S. (2013). A study of students' assessment in writing skills of the English language. *Online Submission*, 6, 129-144.
- Johnson, M. D., Acevedo, A., & Mercado, L. (2016). Vocabulary knowledge and vocabulary use in second language writing. *TESOL Journal*, 7, 700-715.
<https://dx.doi.org/10.1002/tesj.238>
- Joshi, R. M., Hoiem, T., Feng, X., Chengappa, R., & Boulware-Gooden, R. (2006). Learning to spell by ear and by eye: A cross-linguistic comparison. In R. M. Joshi & R. G. Aaron (Eds.), *Handbook of orthography and literacy* (pp. 569-577). Mahwah, NJ: Erlbaum.
- Jia, G., Aaronson, D., & Wu, Y. (2002). Long-term language attainment of bilingual immigrants: Predictive variables and language group differences. *Applied Psycholinguistics*, 23, 599-621.
- Jia, G., Aaronson, D., Young, D., Chen, S., & Wagner, J. (2005). Bilingual Mandarin-, Russian-and Spanish-English speakers' grammatical proficiency in their two languages. In M. Minami, H. Kobayashi, M. Nakayama, & H. Sirai (Eds.), *Studies in language sciences* (pp. 160-171). Tokyo, Japan: Kuroasio.
- Juel, C. (1988). Learning to read and write: A longitudinal study of 54 children from first through fourth grades. *Journal of Educational Psychology*, 80, 437-447.
<http://dx.doi.org/10.1037/0022-0663.80.4.437>
- Juel, C., Griffith, P. L., & Gough, P. B. (1985). Reading and spelling strategies of first grade children. In J. A. Niles & R. Lalik (Eds.), *Issues in literacy: A research perspective* (pp. 306-309). Rochester, NY: National Reading Conference.
- Juel, C., Griffith, P. L., & Gough, P. B. (1986). Acquisition of literacy: A longitudinal study of children in first and second grade. *Journal of Educational Psychology*, 78, 243-255. <http://dx.doi.org/10.1037/0022-0663.78.4.243>
- Kachru, B. B., Kachru, Y., & Nelson, C. (eds.). (2009). *The handbook of world Englishes* (Vol. 48). Hoboken, NJ: John Wiley.

- Kamil, M. L., & Hiebert, E. H. (2005). Teaching and learning vocabulary: Perspective and Persistent Issues. In E. H. Hiebert & M. L. Kamil (Eds.), *Teaching and learning vocabulary: Bringing research to practice*, (pp. 1-23). Mahwah, NJ: Lawrence Erlbaum.
- Kamimoto, T. (2014). Local item dependence on the vocabulary levels test revisited. *Vocabulary Learning and Instruction*, 3, 56-68.
<http://dx.doi.org/10.7820/vli.v03.2.kamimoto>
- Karakoç, D., & Köse, G. D. (2017). The impact of vocabulary knowledge on reading, writing and proficiency scores of EFL learners. *Journal of Language and Linguistic Studies*, 13, 352-378.
- Karimi, M. N. (2013). Enhancing L2 students' listening transcription ability through a focus on morphological awareness. *Journal of Psycholinguistic Research*, 42, 451-459.
- Karim, N., S. Onn, F. M., Haji Musa, H., & Mahmood, A. H. (2008). *Tatabahasa dewan (3rd ed.)*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Kassin, T. A. (2000). *The phonological word in Standard Malay* (Unpublished doctoral dissertation). University of Newcastle, Australia.
- Kaur, G., & Kaur, S. (2008). Malaysian graduates' employability skills. *UNITAR e-Journal*, 4, 15-45.
- Kaur, P. (2009). *Phonological intelligibility: A study of Malay and Chinese learners of English in Malaysia* (Unpublished doctoral dissertation). National University of Singapore, Singapore.
- Kaur, N., Othman, N. H., & Abdullah, M. K. K. (2017). Lexical competence among tertiary students: Teacher-student perspectives. *The English Teacher*, 37, 90-104.
- Katz, L., & Frost, R. (1992). The reading process is different for different orthographies: The orthographic depth hypothesis. In R. Frost & L. Katz (Eds.), *Advances in psychology, orthography, phonology, morphology, and meaning* (Vol. 94, pp. 67-84). Oxford, UK: North-Holland. [http://dx.doi.org/10.1016/S0166-4115\(08\)62789-2](http://dx.doi.org/10.1016/S0166-4115(08)62789-2)
- Kay, J., & Marcel, A. (1981). One process, not two, in reading aloud: Lexical analogies do the work of non-lexical rules. *The Quarterly Journal of Experimental Psychology Section A: Human Experimental Psychology*, 33, 397-413.
<http://dx.doi.org/10.1080/14640748108400800>
- Kecskes, I. (2008). The effect of the second language on the first language: The dual language approach. *Babylonia*, 2, 30-34.
- Kecskes, I. (2010). Dual and multilanguage systems. *International Journal of Multilingualism*, 7, 91-109. <http://dx.doi.org/10.1080/14790710903288313>
- Kecskes, I., & Papp, T. (2000). *Foreign language and mother tongue*. Mahwah, NJ: Lawrence Erlbaum.

- Keenan, J. M., Betjemann, R. S., & Olson, R. K. (2008). Reading comprehension tests vary in the skills they assess: Differential dependence on decoding and oral comprehension. *Scientific Studies of Reading, 12*, 281-300.
<https://dx.doi.org/10.1080/10888430802132279>
- Kellogg, R. T. (1996). A model of working memory in writing. In C. M. Levy & S. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences and applications* (pp. 57-71). Mahwah, NJ: Lawrence Erlbaum.
- Kepner, C. G. (1991). An experiment in the relationship of types of written feedback to the development of second-language writing skills. *Modern Language Journal, 75*, 305-313. <http://dx.doi.org/10.2307/328724>
- Keung, Y. C., & Ho, C. S. H. (2009). Transfer of reading-related cognitive skills in learning to read Chinese (L1) and English (L2) among Chinese elementary school children. *Contemporary Educational Psychology, 34*, 103-112.
<http://dx.doi.org/10.1016/j.cedpsych.2008.11.001>
- Khan, P. (2005). *Analysis of errors in a secondary school in Kuala Lumpur* (Unpublished masters' dissertation). Universiti Kebangsaan Malaysia, Malaysia.
- Khoo, T. J. (2017). *An exploratory study: The influence of script upon the translation process* (Unpublished masters' dissertation). University of Eastern Finland, Finland.
- Kiany, G. R., & Nejad, M. K. (2001). On the relationship between English proficiency, writing ability, and the use of conjunctions in Iranian EFL learners' compositions. *ITL-International Journal of Applied Linguistics, 133*, 227-239.
- Kieffer, M. J., & Lesaux, N. K. (2008). The role of derivational morphology in the reading comprehension of Spanish-speaking English language learners. *Reading and Writing, 21*, 783-804. <http://dx.doi.org/10.1007/s11145-007-9092-8>
- Kieffer, M. J., & Lesaux, N. K. (2012). Direct and indirect roles of morphological awareness in the English reading comprehension of native English, Spanish, Filipino, and Vietnamese speakers. *Language Learning, 62*, 1170-1204.
<http://dx.doi.org/10.1111/j.1467-9922.2012.00722.x>
- Kieffer, M. J., Biancarosa, G., & Mancilla-Martinez, J. (2013). Roles of morphological awareness in the reading comprehension of Spanish-speaking language minority learners: Exploring partial mediation by vocabulary and reading fluency. *Applied Psycholinguistics, 34*, 697-725. <http://dx.doi.org/10.1017/S0142716411000920>
- Kieffer, M. J., & Box, C. D. (2013). Derivational morphological awareness, academic vocabulary, and reading comprehension in linguistically diverse sixth graders. *Learning and Individual Differences, 24*, 168-175.
<http://dx.doi.org/10.1016/j.lindif.2012.12.017>
- Kim, L. C., Akkakoson, S., Odacıoğlu, M. C., Suki, N. M., & Bating, H. (2017). Malay ESL students' difficulties in using English prepositions. *International Journal of Languages, Literature and Linguistics, 3*, 122-127.
<http://dx.doi.org/10.18178/IJLL.2017.3.3.121>

- Kim, L. S., Siong, L. K., Fei, W. F., & Ya'acob, A. (2010). The English language and its impact on identities of multilingual Malaysian undergraduates. *GEMA Online Journal of Language Studies*, 10, 87-101.
- Kim, Y. S. (2009). Crosslinguistic influence on phonological awareness for Korean–English bilingual children. *Reading and Writing*, 22, 843-861.
<http://dx.doi.org/10.1007/s11145-008-9132-z>
- Kim, Y. S., Al Otaiba, S., Sidler, J. F., Greulich, L., & Puranik, C. (2014). Evaluating the dimensionality of first grade written composition. *Journal of Speech, Language, and Hearing Research*, 57, 199-211.
- Kim, Y. S. G., & Schatschneider, C. (2017). Expanding the developmental models of writing: A direct and indirect effects model of developmental writing (DIEW). *Journal of Educational Psychology*, 109, 35-50.
- Kirby, J. R., Deacon, S. H., Bowers, P. N., Izenberg, L., Wade-Woolley, L., & Parrila, R. (2012). Children's morphological awareness and reading ability. *Reading and Writing*, 25, 389-410. <http://dx.doi.org/10.1007/s11145-010-9276-5>
- Klapper, J., & Rees, J. (2003). Reviewing the case for explicit grammar instruction in the university foreign language learning context. *Language Teaching Research*, 7, 285-314. <https://doi.org/10.1191/1362168803LR128OA>
- Knoch, U. (2009). Diagnostic assessment of writing: A comparison of two rating scales. *Language Testing*, 26, 275-304. <https://dx.doi.org/10.1177/0265532208101008>
- Knowles, G. O., & Don, Z. M. (2006). *Word class in Malay: A corpus-based approach*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Koda, K., & Zehler, A. M. (2008). *Learning to read across languages: Cross-linguistic relationships in first- and second- language literacy development*. New York, NY: Routledge.
- Konza, D. (2011). Phonological awareness. *Research into Practice*, 1, 1-6. Retrieved from <http://www.decd.sa.gov.au/>
- Kormos, J. (2012). The role of individual differences in L2 writing. *Journal of Second Language Writing*, 21, 390-403. <https://dx.doi.org/10.1016/j.jslw.2012.09.003>
- Krashen, S. D. (1982). *Principles and practice in second language acquisition*. Oxford, UK: Pergamon Press.
- Krashen, S. D., Dulay, H., & Burt, M. (1982). *Language two*. New York, NY: Oxford University Press.
- Krashen, S. D., & Terrell, T. (1983). *The natural approach: Language acquisition in the classroom*. Oxford, UK: Pergamon.
- Kremmel, B. (2015). *The more, the merrier? Issues in measuring vocabulary size*. Paper presented at the LTRC 2015: The Language Testing Research Colloquium, Toronto.

- Kremmel, B., & Schmitt, N. (2018). Vocabulary levels test. In J. I. Liontas, M. DelliCarpini, & J. C. Riopel (Eds.), *The TESOL encyclopedia of English language teaching* (pp.1-7). John Wiley & Sons. <https://dx.doi.org/10.1002/9781118784235.eelt0499>
- Kristjansson, E. A., Desrochers, A., & Zumbo, B. (2003). Translating and adapting measurement instruments for cross-linguistic and cross-cultural research: A guide for practitioners. *Canadian Journal of Nursing Research*, 35, 127-142.
- Kroll, J. F., Bobb, S. C., & Wodniecka, Z. (2006). Language selectivity is the exception, not the rule: Arguments against a fixed locus of language selection in bilingual speech. *Bilingualism: Language and Cognition*, 9, 119-135. <http://dx.doi.org/10.1017/S1366728906002483>
- Kuo, L. J., & Anderson, R. C. (2006). Morphological awareness and learning to read: A cross-language perspective. *Educational Psychologist*, 41, 161-180. https://dx.doi.org/10.1207/s15326985ep4103_3
- Lado, R. (1957). *Linguistics across cultures: Applied linguistics for language teachers*. Ann Arbor, US: University of Michigan Press.
- Lakshmanan, U. (2009). Child second language acquisition. In W. Ritchie & T. Bhatia (Eds.), *The new handbook of second language acquisition* (pp. 377-399). Bingley, UK: Emerald.
- Lan, O. S., & Tan, M. (2008). Mathematics and science in English: Teachers experience inside the classroom. *Jurnal Pendidik dan Pendidikan*, 23, 141-150.
- Landgraf, S., Beyer, R., Hild, I., Schneider, N., Horn, E., Schaadt, G., Foth, M., Pannekamp, A., & van der Meer, E. (2012). Impact of phonological processing skills on written language acquisition in illiterate adults. *Developmental Cognitive Neuroscience*, 2, 129-138. <https://dx.doi.org/10.1016/j.dcn.2011.11.006>
- Landis, J. R., & Koch, G., (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33, 159-174. <https://dx.doi.org/10.2307/2529310>
- Latif, M. A. (2007). The factors accounting for the Egyptian EFL university students' negative writing affect. *Essex Graduate Students Papers in Language and Linguistics*. 9, 57-82.
- Lauchlan, F., Parisi, M., & Fadda, R. (2013). Bilingualism in Sardinia and Scotland: Exploring the cognitive benefits of speaking a 'minority' language. *International Journal of Bilingualism*, 17, 43-56. <https://dx.doi.org/10.1177/1367006911429622>
- Laufer, B. (1988). The concept of "synforms" (similar lexical forms) in vocabulary acquisition. *Language and Education*, 2, 113-132. <https://dx.doi.org/10.1080/09500788809541228>
- Laufer, B. (1991). The development of L2 lexis in the expression of the advanced learner. *The Modern Language Journal*, 75, 440-448. <https://dx.doi.org/10.1111/j.1540-4781.1991.tb05380.x>

- Laufer, B. (1994). The lexical profile of second language writing: Does it change over time? *RELC Journal*, 25, 21-33. <https://dx.doi.org/10.1177/003368829402500202>
- Laufer, B., & Goldstein, Z. (2004). Testing vocabulary knowledge: Size, strength, and computer adaptiveness. *Language Learning*, 54, 399-436. <http://dx.doi.org/10.1111/j.0023-8333.2004.00260.x>
- Laufer, B., & Paribakht, T. S. (1998). The relationship between passive and active vocabularies: Effects of language learning context. *Language Learning*, 48, 365-391. <https://dx.doi.org/10.1111/0023-8333.00046>
- Laufer, B., & Nation, P. (1995). Vocabulary size and use: Lexical richness in L2 written production. *Applied Linguistics*, 16, 307-322. <https://dx.doi.org/10.1093/applin/16.3.307>
- Laufer, B., & Nation, P. (1999). A vocabulary size test of controlled productive ability. *Language Testing*, 16, 33-51. <https://dx.doi.org/10.1177/026553229901600103>
- Lee, H. G. (2011). Education of the Chinese in Malaysia. In H. G. Lee & L. Suryadinata (Eds.), *Malaysian Chinese: Recent developments and prospects* (pp. 166-192). Singapore: Institute of Southeast Asian Studies.
- Lee, H. S. (2013). *The correlation between matriculation students' lexical richness and their writing scores* (Unpublished doctoral dissertation). University of Malaya, Malaysia.
- Lee, I. (2004). Error correction in L2 secondary writing classrooms: The case of Hong Kong. *Journal of Second Language Writing*, 13, 285-312. <https://dx.doi.org/10.1016/j.jslw.2004.08.001>
- Lee, K. S. (2004). Exploring the connection between the testing of reading and literacy: The case of the MUET. *GEMA Online Journal of Language Studies*, 4, 41-50.
- Lee, L. C., Liow, .S. J. R., & Wee, M. L. O. (1999). Morphological structure of Malay: Using psycholinguistic analyses of rated familiarity. In M. Alves, P. Sidwell, & D. Gil (Eds.), *SEALS VIII papers from the 8th annual meeting of the Southeast Asian*, (pp. 109-119). Australia, Canberra: Pacific Linguistics.
- Lee, L. W. (2008). Development and validation of a reading-related assessment battery in Malay for the purpose of dyslexia assessment. *Annals of Dyslexia*, 58, 37-57. <https://dx.doi.org/10.1007/s11881-007-0011-0>
- Lee, L. W., Low, H. M., & Mohamed, A. R. (2013). A comparative analysis of word structures in Malay and English children's stories. *Pertanika Journal of Social Sciences & Humanities*, 21, 67-84.
- Lee, L. W., & Wheldall, K. (2010). Acquisition of Malay language word reading skills: Lessons from low progress early readers. *Dyslexia*, 17, 19-37. <https://dx.doi.org/10.1002/dys.421>
- Lee, T. (2016). Dominant language transfer in the comprehension of L2 learners and heritage speakers. *International Journal of Applied Linguistics*, 26, 190-210. <https://dx.doi.org/10.1111/ijal.12089>

- Lefebvre, C., White, L., & Jourdan, C. (eds.). (2006). *L2 acquisition and Creole genesis*. Amsterdam, The Netherlands: John Benjamins Publishing.
- Lehr, F., Osborn, J., & Hiebert, E. H. (2004). *A focus on vocabulary*. Honolulu, HI: Pacific Regional Educational Laboratory.
- Leki, I., & Carson, J. G. (1994). Students' perceptions of EAP writing instruction and writing needs across the disciplines. *TESOL Quarterly*, 28, 81-101.
<https://dx.doi.org/10.2307/3587199>
- Leider, C. M., Proctor, C. P., Silverman, R. D., & Harring, J. R. (2013). Examining the role of vocabulary depth, cross-linguistic transfer, and types of reading measures on the reading comprehension of Latino bilinguals in elementary school. *Reading and Writing*, 26, 1459-1485. <https://dx.doi.org/10.1007/s11145-013-9427-6>
- Leij, A. V., Bekebrede, J., & Kotterink, M. (2010). Acquiring reading and vocabulary in Dutch and English: The effect of concurrent instruction. *Reading and Writing: An Interdisciplinary Journal*, 23, 415-434. <http://dx.doi.org/10.1007/s11145-009-9207-5>
- Leikin, M., Schwartz, M., & Share, D. L. (2010). General and specific benefits of bi-literate bilingualism: A Russian-Hebrew study of beginning literacy. *Reading and Writing*, 23, 269-292. <http://dx.doi.org/10.1007/s11145-009-9210-x>
- Leppänen, U., Aunola, K., Niemi, P., & Nurmi, J. E. (2008). Letter knowledge predicts Grade 4 reading fluency and reading comprehension. *Learning and Instruction*, 18, 548-564.
- Leppänen, U., Nieme, P., Aunola, K., & Nurmi, J. E. (2006). Development of reading and spelling Finnish from preschool to grade 1 and grade 2. *Scientific Studies of Reading*, 10, 3-30. https://dx.doi.org/10.1207/s1532799xssr1001_2
- Leon, A. C., Davis, L. L., & Kraemer, H. C. 2011. The role and interpretation of pilot studies in clinical research. *Journal of Psychiatric Research* 45, 626-629.
<http://dx.doi.org/10.1016/j.jpsychires.2010.10.008>
- Lervåg, A., & Aukrust, V. G. (2010). Vocabulary knowledge is a critical determinant of the difference in reading comprehension growth between first and second language learners. *Journal of Child Psychology and Psychiatry*, 51, 612-620.
<http://dx.doi.org/10.1111/j.1469-7610.2009.02185.x>
- Lété, B., Peereman, R., & Fayol, M. (2008). Consistency and word-frequency effects on spelling among first- to fifth-grade French children: A regression-based study. *Journal of Memory and Language*, 58, 952-977.
<http://dx.doi.org/10.1016/j.jml.2008.01.001>
- Li, L., & MacGregor, L. J. (2010). Investigating the receptive vocabulary size of university-level Chinese learners of English: How suitable is the Vocabulary Levels Test? *Language and education*, 24, 239-249.
<https://dx.doi.org/10.1080/09500781003642478>
- Lightbown, P. M., & Spada, N. (1999). *Oxford handbooks for language teachers: How languages are learned*. Oxford, UK: Oxford University Press.

- Linnarud, M. (1986). *Lexis in composition*. Lund, Sweden: Lund Studies in English.
- Linse, C. T., & Nunan, D. (2006). *Practical English language teaching: Young learners*. New York, NY: McGraw-Hill.
- Liow, S. R. (1999). Reading skill development in bilingual Singaporean children. In M. Harris & G. Hatano (Eds.), *Learning to read and write: A cross-linguistic perspective* (pp. 196-213). New York, NY: Cambridge University Press.
- Liow, S. J. R., & Lau, L. H. S. (2006). The development of bilingual children's early spelling in English. *Journal of Educational Psychology*, 98, 868-878.
<http://dx.doi.org/10.1037/0022-0663.98.4.868>
- Liow, S. J. R., & Lee, L. C. (2004). Metalinguistic awareness and semi-syllabic scripts: Children's spelling errors in Malay. *Reading and Writing: An Interdisciplinary Journal*, 17, 7-26. <https://dx.doi.org/10.1023/B:READ.0000013833.79570.de>
- Liu, D. (2000). Writing cohesion: Using context lexical ties in ESOL. *English Teaching Forum*, 38, 28-33.
- Liu, P. D., & McBride-Chang, C. (2010). What is morphological awareness? Tapping lexical compounding awareness in Chinese third graders. *Journal of Educational Psychology*, 102, 62-73. <http://dx.doi.org/10.1037/a0016933>
- Llach, M. P. A., & Gallego, M. T. (2009). Examining the relationship between receptive vocabulary size and written skills of primary school learners. *Atlantis*, 31, 129-147.
- Loewe, S. (2009). Grammaticality judgment tests and the measurement of implicit and explicit L2 knowledge. In R. Ellis, S. Loewen, C. Elder, R. Erlam, J. Philp, & H. Reinders (Eds.), *Implicit and explicit knowledge in second language learning, testing and teaching* (pp. 94-112). Bristol, UK: Multilingual Matters.
- Lyon, J. (1996). *Becoming bilingual: Language acquisition in a bilingual community*. Clevedon, UK: Multilingual matters.
- Maarof, N., & Murat, M. (2013). Writing strategies used by ESL upper secondary school students. *International Education Studies*, 6, 47-55.
<https://dx.doi.org/10.5539/ies.v6n4p47>
- Maclean, M., Bryant, P., & Bradley, L. (1987). Rhymes, nursery rhymes, and reading in early childhood. *Merrill-Palmer Quarterly*, 33, 255-281.
- MacSwan, J., & Rolstad, K. (2003). Linguistic diversity, schooling, and social class: Rethinking our conception of language proficiency in language minority education. In C. B. Paulston & G. R. Tucker (Eds.), *Sociolinguistics: The essential readings* (pp. 329-340). Malden, MA: Blackwell.
- Maghsoudi, M., & Haririan, J. (2013). The impact of brainstorming strategies Iranian EFL learners writing skill regarding their social class status. *Journal of Language and Linguistics*, 1, 60-67. <http://dx.doi.org/10.11648/j.ijll.s.20130101.20>

- Mah, B. Y., Umar, I. N., & Chow, V. T. (2013). L2 writing challenges for the undergraduates: A performance analysis and a literature review on SIL domains. In *The Asian Conference on Language Learning Conference Proceedings* (pp. 302-316).
- Mahmood, A. H. (1977). *Sintaksis dialek Kelantan* (Unpublished doctoral dissertation). University of Malaya, Malaysia.
- Mahony, D. (1994). Using sensitivity to word structure to explain variance in high school and college level reading ability. *Reading and Writing: An Interdisciplinary Journal*, 6, 19-44.
- Mahony, D., Singson, M., & Mann, V. (2000). Reading ability and sensitivity to morphological relations. *Reading and Writing: An Interdisciplinary Journal*, 12, 191-218. <https://dx.doi.org/10.1023/A:1008136012492>
- Manchon, M. R. (2009). Broadening the perspective L2 writing scholarship: The contribution of research on foreign language writing. In R. Manchon (Ed.), *Writing in foreign language contexts: Learning, teaching, and research* (pp. 1-22). Clevedon, UK: Multilingual Matters.
- Mandell, P. B. (1999). On the reliability of grammaticality judgement tests in second language acquisition research. *Second Language Research*, 15, 73-99. <https://dx.doi.org/10.1191/026765899667538959>
- Mann, V. A. (2000). Introduction to special issue on morphology and the acquisition of alphabetic writing systems. *Reading and Writing: An Interdisciplinary Journal*, 12, 143-147. <https://dx.doi.org/10.1023/A:1008190908857>
- Maniam, M., & Rajagopal, P. (2015). Learning and transfer strategies in the paradigm of second language context. *International Journal of Social Science and Humanities Research*, 3, 238-244.
- Marinova-Todd, S. H., Siegel, L. S., & Mazabel, S. (2013). The association between morphological awareness and literacy in English language learners from different language backgrounds. *Topics in Language Disorders*, 33, 93-107. <https://dx.doi.org/10.1097/TLD.0b013e318280f5d5>
- Maros, M., Hua, T. K., & Salehuddin, K. (2007). Interference in learning English: Grammatical errors in English essay writing among rural Malay secondary school students in Malaysia. *Journal e-Bangi*, 2, 1-15.
- Maros, M., Salehuddin, K., & Hua, T. K. (2005). "Everyone people must have a best friend. Interference of Malay structures in English written discourse". Proceedings of the TLEiA Conference. *TEaching and Learning of English: Towards an Asian Perspective*. Universiti Utara Malaysia: Fakulti Komunikasi dan Bahasa Moden.
- Mart, C. T. (2013). Teaching grammar in context: Why and how? *Theory and Practice in Language Studies*, 3, 124-129. <http://dx.doi.org/10.4304/tpls.3.1.124-129>
- Masrai, A., & Milton, J. (2018). Measuring the contribution of academic and general vocabulary knowledge to learners' academic achievement. *Journal of English for Academic Purposes*, 31, 44-57. <https://dx.doi.org/10.1016/j.jeap.2017.12.006>

- Matsumoto, K. (1995). Research paper writing strategies of professional Japanese EFL writers. *TESL Canada Journal*, 13, 17-27. <http://dx.doi.org/10.18806/tesl.v13i1.658>
- Matsuda, P. K. (2013). Response: What is second language writing-and why does it matter? *Journal of Second Language Writing*, 22, 448-450. <http://dx.doi.org/10.1016/j.jslw.2013.08.011>
- Matsuda, P. K., & De Pew, K. E. (2002). Early second language writing: An introduction. *Journal of Second Language Writing*, 11, 261-268. [http://dx.doi.org/10.1016/S1060-3743\(02\)00087-5](http://dx.doi.org/10.1016/S1060-3743(02)00087-5)
- Maximo, R. (2000). Effects if rote, context, keyword, and context/ keyword method on retention of vocabulary in EFL classroom. *Language Learning*, 50, 385-412. <https://dx.doi.org/10.1111/0023-8333.00121>
- McCutchen, D. (2000). Knowledge, processing, and working memory: Implications for a theory of writing. *Educational Psychologist*, 35, 13-23.
- McCutchen, D. (2006). Cognitive factors in the development of children's writing. In C. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of Writing Research* (pp. 115-130). New York, NY: The Guilford Press.
- McCutchen, D. (2011). From novice to expert: Implications of language skills and writingrelevant knowledge for memory during the development of writing skill. *Journal of Writing Research*, 3, 51-68.
- McCutchen, D., & Stull, S. (2015). Morphological awareness and children's writing: Accuracy, error, and invention. *Reading and writing*, 28, 271-289. <https://dx.doi.org/10.1007/s11145-014-9524-1>
- McLaughlin, B. (1984). *Child psychology. Second-language acquisition in childhood: Preschool children* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.
- McLean, S., & Kramer, B. (2015). The creation of a new vocabulary levels test. *Shiken*, 19, 1-11.
- McMullen, M. G. (2009). Using language learning strategies to improve the writing skills of Saudi EFL students: Will it really work? *System*, 37, 418-433. <https://dx.doi.org/10.1016/j.system.2009.05.001>
- McNamara, D. S., Crossley, S. A., & McCarthy, P. M. (2010). Linguistic features of writing quality. *Written Communication*, 27, 57-86. <https://dx.doi.org/10.1177/0741088309351547>
- Meara, P. (1996). The dimensions of lexical competence. In G. Brown, K. Malmkjaer, & J. Williams (Eds.), *Performance and competence in second language acquisition* (pp. 35-53). Cambridge, UK: Cambridge University Press.
- Meara, P., & Wolter, B. (2004). V_Links: Beyond vocabulary depth. In D. Albrechtsen, K. Hastrup, & B. Henriksen (Eds.), *Angles on the English-speaking world: Writing and vocabulary in foreign language acquisition* (pp. 85-96). Copenhagen, Denmark: Museum Tusulanum Press.

- Mehrabi, N. (2014). The effect of second language writing ability on first language writing ability. *Theory and Practice in Language Studies*, 4, 1686-1691. <https://dx.doi.org/10.4304/tpls.4.8.1686-1691>
- Melby-Lervåg, M., & Lervåg, A. (2011). Cross-linguistic transfer of oral language, decoding, phonological awareness and reading comprehension: A meta-analysis of the correlational evidence. *Journal of Research in Reading*, 34, 114-135. <https://dx.doi.org/10.1111/j.1467-9817.2010.01477.x>
- Mennen, I. (2004). Bi-directional interference in the intonation of Dutch speakers of Greek. *Journal of Phonetics*, 32, 543-563. <https://dx.doi.org/10.1016/j.wocn.2004.02.002>
- Miles, E. (2000). Dyslexia may show a different face in different languages. *Dyslexia*, 6, 193-201. [https://dx.doi.org/10.1002/1099-0909\(200007/09\)6:3<193::AID-DYS170>3.0.CO;2-P](https://dx.doi.org/10.1002/1099-0909(200007/09)6:3<193::AID-DYS170>3.0.CO;2-P)
- Mitchell, R., & Myles, F. (2004). *Second language learning theories*. New York, NY: Oxford University Press.
- Milton, J. (2013). Measuring the contribution of vocabulary knowledge to proficiency in the four skills. In C. Bardel, C. Lindqvist, & B. Laufer (Eds.), *L2 vocabulary acquisition, knowledge and use: New perspectives on assessment and corpus analysis* (pp. 57-78). Eurosla Monographs Series.
- Moats, L.C. (2005). How spelling supports reading: And why it is more regular and predictable than you may think. *American Educator*, 12-22, 42-43.
- Moattarian, A. (2013). Bidirectional crosslinguistic influence in language learning: Linguistic aspects and beyond. *International Journal of Linguistics*, 5, 38-49. <http://dx.doi.org/10.5296/ijl.v5i4.3746>
- Mohd Nasir, N. F. W., Ab Manan, N. A., & Azizan, N. (2017). Examining the relationship between vocabulary knowledge and general English language proficiency. *ESTEEM Journal of Social Sciences and Humanities*, 1, 15-22.
- Mohd Samuddin, K., & Krish, P. (2018). English orthographic depth among Malay learners at a primary school. *3L: The Southeast Asian Journal of English Language Studies*, 24, 56-68. <http://dx.doi.org/10.17576/3L-2018-2401-05>
- Mohtar, T. M. T., Kepol, N., Ahmad, A. Z. L., Singh, S. C. K., Yan, N., & Mat, M. (2017). *Validation of the scaffolding model and modules for teaching ESL writing skills in national schools in Malaysia* (Unpublished ERGS Research Report). Universiti Pendidikan Sultan Idris, Tanjong Malim, Malaysia.
- Mojica, L. A. (2006). Reiterations in ESL learners' academic papers: Do they contribute to lexical cohesiveness. *The Asia-Pacific Education Research*, 15, 105-125.
- Mojica, L. A. (2010). An investigation on self-reported writing problems and actual writing deficiencies of EFL learners in the beginners' level. *TESOL Journal*, 2, 24-38.

- Moll, K., & Landerl, K. (2009). Double dissociation between reading and spelling deficits. *Scientific Studies of Reading, 13*, 359-382.
<https://dx.doi.org/10.1080/10888430903162878>
- Mountain, L. (2005). ROOTing out meaning: More morphemic analysis for primary pupils. *The Reading Teacher, 58*, 742-749. <https://dx.doi.org/10.1598/RT.58.8.4>
- Mountford, J. (1990). Language and writing-systems. In N. E. Collinge (Ed.), *An encyclopaedia of language*, (pp. 701-739). New York, NY: Routledge
- Mora, J. K. (2010). *Teaching for transfer: A guide to effective biliteracy instruction*. Philadelphia, PA: Caslon.
- Morin, R. (2003). Derivational morphological analysis as a strategy for vocabulary acquisition in Spanish. *The Modern Language Journal, 87*, 200-221.
<https://dx.doi.org/10.1111/1540-4781.00186>
- Mota, M. D. (1996). *Children's role of grammatical rules in spelling* (Unpublished doctoral dissertation). University of Oxford, England.
- Mu, C., & Carrington, S. B. (2007). An investigation of three Chinese students' English writing strategies. *Teaching English as a Second or Foreign Language-EJ, 11*, 1-23.
- Muhamad, M., & Kiely, R. (2018). Understanding teachers' pedagogical knowledge in ESL vocabulary teaching. *Journal of Arts and Humanities, 7*, 36-47.
<https://dx.doi.org/10.18533/journal.v7i1.1328>
- Mukundan, J., Mahvelati, E. H., Din, M. A., & Nimehchisalem, V. (2013). Malaysian secondary school students' ESL writing performance in an intensive English program. *World Applied Sciences Journal, 22*, 1677-1684.
<https://dx.doi.org/10.5829/idosi.wasj.2013.22.12.730>
- Musa, C. N., Lie, Y. K., & Azman, H. (2012). Exploring English language learning and teaching in Malaysia. *Journal of Language Studies, 12*, 35-51.
- Musa, H., Kadir, R. A., Azman, A., & Abdullah, M. T. (2011). Syllabification algorithm based on syllable rules matching for Malay language. *Proceedings of the 10th WSEAS international conference on applied computer and applied computational science* (pp. 279-286). World Scientific and Engineering Academy and Society (WSEAS).
- Muse, A. E. (2005). *The nature of morphological knowledge* (Unpublished doctoral dissertation). Florida State University, United States.
- Myles, J. (2002). Second Language Writing and Research: The writing process and error analysis in student texts. *TESL-EJ, 6*. Retrieved from <http://tesl-ej.org/ej22/a1.html>
- Nadarajan, S. (2011). The challenges of getting L2 learners to use academic words in their writings. *Electronic Journal of Foreign Language Teaching, 8*, 184-200.
- Naeimi, M., Foo, H., & Choo, T. (2013). The study of the effectiveness of indirect vocabulary learning strategy on the Iranian undergraduate students' reading comprehension. *Language in India, 13*, 407-430.

- Naeini, J. (2008). Error correction: An indication of consciousness-raising. *Novitas-ROYAL*, 2, 120-137.
- Naeimi, M., Soltani, R., & Damavand, A. (2013). Enhancing the Iranian EFL learners' reading comprehension through implicit vocabulary learning strategy. *International Journal of English and Education*, 2, 377-387.
- Nagy, W. (2007). Metalinguistic awareness and the vocabulary-comprehension connection. In R. K. Wagner, A. Muse, & K. Tannenbaum (Eds.), *Vocabulary acquisition and its implications for reading comprehension* (pp. 52-77). New York, NY: Guilford Press.
- Nagy, W., Berninger, V. W., & Abbott, R. D. (2006). Contributions of morphology beyond phonology to literacy outcomes of upper elementary and middle-school students. *Journal of Educational Psychology*, 98, 134-147. <http://dx.doi.org/10.1037/0022-0663.98.1.134>
- Nagy, W. E., & Anderson, R. C. (1984). The number of words in printed school English. *Reading Research Quarterly*, 19, 304-330. <http://dx.doi.org/10.2307/747823>
- Nagy, W., Berninger, V., Abbott, R., Vaughan, K., & Vermeulen, K. (2003). Relationship of morphology and other language skills to literacy skills in at-risk second-grade readers and at-risk fourth-grade writers. *Journal of Educational Psychology*, 95, 730-742. <http://dx.doi.org/10.1037/0022-0663.95.4.730>
- Nagy, W. E., Carlisle, J. F., & Goodwin, A. P. (2014). Morphological knowledge and literacy acquisition. *Journal of Learning Disabilities*, 47, 3-12. <http://dx.doi.org/10.1177/0022219413509967>
- Nair, A. B. (2013). *Cross-language transfer of phonological and morphological awareness among young Malay second language learners* (Unpublished doctoral dissertation). University of Malaya, Malaysia.
- Nair, R., Krishnasamy, R., & de Mello, G. (2006). Rethinking the teaching of pronunciation in the ESL classroom. *The English Teacher*, 35, 27-40.
- Nair-Venugopal, S. (2000). English, identity and the Malaysian workplace. *World Englishes*, 19, 205-213. <https://dx.doi.org/10.1111/1467-971X.00169>
- Nakamura, P. R., Koda, K., & Joshi, R. M. (2014). Biliteracy acquisition in Kannada and English: A developmental study. *Writing Systems Research*, 6, 132-147. <https://dx.doi.org/10.1080/17586801.2013.855620>
- Nambiar, R. M. (2007). Enhancing academic literacy among tertiary learners: A Malaysian experience. *3L: Language, Linguistics and Literature, The Southeast Asian Journal of English Language Studies*, 13, 77-94.
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge, UK: Cambridge University Press.
- Nation, I. S. P. (1990). *Teaching and learning vocabulary*. Boston, MA: Heinle & Heinle.

- Nation, K., & Snowling, M. J. (2004). Beyond phonological skills: Broader language skills contribute to the development of reading. *Journal of Research in Reading*, 27, 342-356. <https://dx.doi.org/10.1111/j.1467-9817.2004.00238.x>
- Nayan, S., & Jusoff, K. (2009). A study of subject-verb agreement: From novice writers to expert writers. *International Education Studies*, 2, 190-194. <http://dx.doi.org/10.5539/ies.v2n3p190>
- Nelson, C. P. (2002). *Contradictions in learning to write in a second language classroom: Insights from radical constructivism, activity theory, and complexity theory* (Unpublished doctoral dissertation). University of Texas, United States.
- Nemati, M. (1999). *The effect of mode of discourse on EFL writing performance* (Unpublished doctoral dissertation). University of Leicester, England.
- Nenopoulou, S. (2005). *Dyslexia versus English-as-an additional language: Literacy and phonological skills* (Unpublished doctoral dissertation). University of Surrey, England.
- Netten, A., Droop, M., & Verhoeven, L. (2011). Predictors of reading literacy for first and second language learners. *Reading and writing*, 24, 413-425. <http://dx.doi.org/10.1007/s11145-010-9234-2>
- Neuman, S. B., & Dwyer, J. (2009). Missing in action: Vocabulary instruction in pre-K. *The Reading Teacher*, 62, 384-392. <http://dx.doi.org/10.1598/RT.62.5.2>
- Nezhad, A. N., Moghali, M., & Soori, A. (2015). Explicit and implicit learning in vocabulary acquisition. *Asian Journal of Education and e-Learning*, 3, 18-25.
- Nichols, W. D., & Rupley, W. H. (2004). Matching instructional design with vocabulary instruction. *Reading Horizons*, 45, 54-71. Retrieved from https://scholarworks.wmich.edu/reading_horizons/vol45/iss1/4
- Niedo, J., Abbott, R. D., & Berninger, V. W. (2014). Predicting levels of reading and writing achievement in typically developing English-speaking 2nd and 5th graders. *Learning and Individual Differences*, 32, 54-68. <http://dx.doi.org/10.1016/j.lindif.2014.03.013>
- Nik, H. B. (2003). *Teori Bahasa: Implikasinya terhadap pengajaran tatabahasa*. Tanjong Malim, Malaysia: Penerbit Universiti Pendidikan Sultan Idris.
- Nik, Y. A., Hamzah, A., & Rafidee, H. (2010). A comparative study on the factors affecting the writing performance among bachelor students. *International Journal of Educational Research and Technology*, 1, 54-59.
- Nik, Y. A., Sani, B., Wan Chik, M. N., Jusoff, K., & Hasbollah, H. R. (2010). The writing performance of undergraduates in the University of Technology, Mara, Terengganu, Malaysia. *Journal of Languages and Culture*, 1, 8-14.
- Nik Safiah, K. (1989). *Tatabahasa dewan jilid 2: Perkataan*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.

- Nik Safiah, K. (1995). *Malay grammar for academics and professionals*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Nik Safiah, K., Farid, M. O., Hashim, H. M., & Abdul Hamid, M. (2004). *Tatabahasa dewan*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Northey, M. (2013). *Control of morphological forms in writing* (Unpublished masters' dissertation). University of Washington, United States.
- Nunan, D. (1999). *Second language teaching and learning*. Boston, Massachusetts: Heinle & Heinle.
- Nunes, T., & Bryant, P. (2006). *Improving literacy by teaching morphemes*. London, UK: Routledge.
- Nunes, T., & Bryant, P. (2009). *Children's reading and spelling: Beyond the first steps*. Oxford, UK: Wiley-Blackwell.
- Nunes, T., Bryant, P., & Bindman, M. (1997). Morphological spelling strategies: developmental stages and processes. *Developmental Psychology*, *33*, 637-649. <http://dx.doi.org/10.1037/0012-1649.33.4.637>
- Nunes, T., Bryant, P., & Bindman, M. (2006). The effects of learning to spell on children's awareness of morphology. *Reading and Writing: An Interdisciplinary Journal*, *19*, 767-787. <https://dx.doi.org/10.1007/s11145-006-9025-y>
- Nunes, T., Bryant, P., & Evans, D. (2010). Morphological knowledge and learning new words. *Revista Portuguesa de Pedagogia & Psychologica, Special Joint volume*, 67-74.
- Nunes, T., Bryant, P., & Olsson, J. (2003). Learning morphological and phonological spelling rules: An intervention study. *Scientific Studies of Reading*, *7*, 289-307. https://dx.doi.org/10.1207/S1532799XSSR0703_6
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York, NY: McGraw-Hill.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory*. New York, NY: McGraw-Hill.
- O'Brien, B. A., Wolf, M., Miller, L. T., Lovett, M. W., & Morris, R. (2011). Orthographic processing efficiency in developmental dyslexia: An investigation of age and treatment factors at the sublexical level. *Annals of dyslexia*, *61*, 111-135. <http://dx.doi.org/10.1007/s11881-010-0050-9>
- Odlin, T. (1989). *Language transfer: Cross-linguistic influence in language learning*. West Nyack, NY: Cambridge University Press.
- Odlin, T. (2003). "Cross-linguistic influence". *The handbook of second language acquisition*. Oxford, UK: Blackwell.
- Olinghouse, N. G. (2008). Student- and instruction-level predictors of narrative writing in third- grade students. *Reading and Writing: An Interdisciplinary Journal*, *21*, 3-26.

- Oller, D. K., & Eilers, R. E. (eds.). (2002). *Language and literacy in bilingual children*. Clevedon, UK: Multilingual Matters.
- Olson, R. K., Kliegl, R., Davidson, B. J., & Foltz, G. (1985). Individual and developmental differences in reading disability. In T. G. Waller (Ed.), *Reading research: Advances in theory and practice* (pp. 1-64). New York, NY: Academic Press.
- Olson, R., Wise, B., Conners, F., Rack, J., & Fulker, D. (1989). Specific deficits in component reading and language skills: Genetic and environmental influences. *Journal of Learning Disabilities*, 22, 339-348.
<http://dx.doi.org/10.1177/002221948902200604>
- O'malley, J. M., & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. Cambridge, UK: Cambridge University Press.
- Ong, H. F., & Ahmad, A. M. (2011). Malay Language Speech Recogniser with Hybrid Hidden Markov Model and Artificial Neural Network (HMM/ANN). *International Journal of Information and Education Technology*, 1, 114-119.
- Onwi, N. (2014). *Preliminary study of validating vocabulary selection and organization of a manual communication board in Malay* (Unpublished doctoral dissertation). University of Pittsburgh, United States.
- Othman, S. (2003). *Malay for everyone*. Kuala Lumpur, Malaysia: Pelanduk.
- Othman, J., & Nordin, A. B. (2013). MUET as a predictor of academic achievement in ESL teacher education. *GEMA Online® Journal of Language Studies*, 13, 99-111.
- Othman, Z., & Rashid, T. (2011). Is it EAP or ESP? The wind of change. *English for Specific Purposes World*, 33, 1-12.
- Ouellette, G., & Fraser, J. R. (2009). What exactly is a yait anyway: The role of semantics in orthographic learning. *Journal of Experimental Child Psychology*, 104, 239-251.
<http://dx.doi.org/10.1016/j.jecp.2009.05.001>
- Oz, H. (2014). Morphological awareness and some implications for English language teaching. *Procedia-Social and Behavioral Sciences*, 136, 98-103.
<http://dx.doi.org/10.1016/j.sbspro.2014.05.296>
- Paauw, S. (2009). One land, one nation, one language: An analysis of Indonesia's national language policy. In H. Lehnert-LeHouillier & A. B. Fine (Eds.), *University of Rochester Working Papers in the Language Sciences*, 5, 2-16.
- Pamela, J. S. (1991). *Test of English as a foreign language*. New York, NY: Barron's Educational Series.
- Pan, Q., & Xu, R. (2011). Vocabulary teaching in English language teaching. *Theory and Practice in Language Studies*, 1, 1586-1589. <http://dx.doi.org/10.4304/tpls.1.11.1586-1589>
- Pandian, A. (2002). English language teaching in Malaysia today. *Asia Pacific Journal of Education*, 22, 35-52. <https://dx.doi.org/10.1080/021887902020205>

- Pandian, A. (2006). What works in the classroom? Promoting literacy practices in English. *3L Journal of Language Teaching, Linguistics and Literature*, 11, 1-25.
- Palpanadan, T., S., Ismail, F., & Salam, A. R. (2015). Role of model essays in developing students writing skills in Malaysian schools: A review of literature. *Mediterranean Journal of Social Sciences*, 6, 56-61.
- Park, E. S. (2011). Learner generated noticing of written L2 input: What do learners notice and why? *Language Learning*, 61, 146-186. <https://dx.doi.org/10.1111/j.1467-9922.2010.00589.x>
- Perfetti, C. A. (1997). Sentences, individual differences, and multiple texts: Three issues in text comprehension. *Discourse Processes*, 23, 337-355. <https://dx.doi.org/10.1080/01638539709544996>
- Perfetti, C., & McCutchen, D. (1987). Schooled language competence: Linguistic abilities in reading and writing. In S. Rosenberg (Ed.), *Advances in applied psycholinguistics* (pp. 105-141). Cambridge, UK: Cambridge University Press.
- Plata-Ramirez, J. M. (2012). *Language switching: A qualitative clinical study of four second language learners' composing processes* (Unpublished doctoral dissertation). University of Iowa, United States.
- Phoon, H. S. (2010). *The phonological development of Malaysian English speaking Chinese children: A normative study* (Unpublished doctoral dissertation). University of Canterbury, New Zealand.
- Phoon, H. S., Abdullah, A. C., & Maclagan, M. (2012). The effect of dialect on the phonological analysis of Malaysian English speaking children. *International Journal of Speech-language Pathology*, 14, 487-98. <https://dx.doi.org/10.3109/17549507.2012.719549>
- Phoon, H. S., Abdullah, A. C., Lee, L. W., & Murugaiah, P. (2014). Consonant acquisition in the Malay language: A cross-sectional study of preschool aged Malay children. *Clinical Linguistics & Phonetics*, 28, 329-345. <https://dx.doi.org/10.3109/02699206.2013.868517>
- Phoon, H. S., & Maclagan, M. A. (2009). The phonology of Malaysian English: A preliminary study. In L. J. Zhang, R. Rubdy, & L. Alsagoff (Eds.), *Proceedings of the 13th International Conference on English in Southeast Asia (ESES 2008)* 4-6 December 2008 (pp. 59-73). Singapore: National Institute of Education, Nanyang Technological University.
- Pillai, R. N. (2004). Using mnemonics to improve vocabulary, boost memory and enhance creativity in the ESL classroom. *The English Teacher*, 23, 62-83.
- Pillai, S. (2014). The monophthongs and diphthongs of Malaysian English: An instrumental analysis. In H. Abdul Rahim & S. Abdul Manan (Eds.), *English in Malaysia: Postcolonial and beyond* (pp. 55-86). Bern: Peter Lang.

- Pillai, S. (2015). Rhoticity in Malaysian English: The emergence of a new norm? In U. Gut, E.-M. Wunder, & R. Fuchs (Eds.), *Universal or diverse paths to English phonology* (pp. 23–40). Berlin: Mouton de Gruyter.
- Pillai, S. (2017). Local features of English pronunciation: To embrace or ignore in the ELT classroom? *Journal of English Language, Literature, and Teaching (J-ELLiT)*, 1, 1-8.
- Pillai, S., Don, Z. M., Knowles, G., & Tang, J. (2010). Malaysian English: An instrumental analysis of vowel contrasts. *World Englishes*, 29, 159-172.
- Pillai, S., & Ong, L. T. (2018). English(es) in Malaysia. *Asian Englishes*, 20, 147-157.
<https://dx.doi.org/10.1080/13488678.2018.1459073>
- Poch, A. L., & Lembke, E. S. (2017). A not-so-simple view of adolescent writing. *International Journal for Research in Learning Disabilities*, 3, 27-44.
- Poh, W. L. (2017). *The interaction between reflective processing and language among bilingual speakers* (Unpublished doctoral dissertation). University of Nottingham, England.
- Preshous, A. (2001). Where you going ah? *English Today*, 17, 46-53.
<https://dx.doi.org/10.1017/S0266078401001067>
- Puteh, A. (2010). The language medium policy in Malaysia: A plural society model? *Review of European Studies*. 2, 192-200. <https://dx.doi.org/10.5539/res.v2n2p192>
- Qi, D. (1998). An inquiry into language-switching in second language composing processes. *Canadian Modern Language Review*, 54, 413-435.
- Quah, C. (1999). Issues in the translation of English affixes into Malay. *Meta*, 44, 604-616.
<https://dx.doi.org/10.7202/003881ar>
- Quek, A. H. (2005). Learning for the workplace: A case study in graduate employees' generic competencies. *Journal of Workplace Learning*, 17, 231-242.
<http://dx.doi.org/10.1108/13665620510597185>
- Ouellette, G. P., & Sénéchal, M. (2008). A window into early literacy: Exploring the cognitive and linguistic underpinnings of invented spelling. *Scientific Studies of Reading*, 12, 195-219. <https://dx.doi.org/10.1080/10888430801917324>
- Rabab'ah, G. (2003). Communicating problems facing Arab learners of English. *Journal of Language and Learning*, 3, 180-197.
- Rajadurai, J. (2004a). The faces and facets of English in Malaysia. *English Today*, 20, 54-58.
<https://dx.doi.org/10.1017/S0266078404004109>
- Rajadurai, J. (2004b). *Speaking "Malaysian English": Sociolinguistic perspectives of phonological variation* (Unpublished doctoral dissertation). University of Nottingham, England.
- Rajadurai, J. (2006). Pronunciation issues in non-native contexts: A Malaysian case study. *Malaysian Journal of ELT Research*, 2, 42-59.

- Rajadurai, J. (2007). Intelligible pronunciation: Focus on the proficient L2 speaker. *The Journal of Asian TEFL*, 4, 1-25.
- Ramachandran, S. D., & Abdul Rahim, H. (2004). Meaning recall and retention: The impact of the translation method on elementary level learners' vocabulary learning. *RELC Journal*, 35, 161-178. <https://dx.doi.org/161-178>. [10.1177/003368820403500205](https://doi.org/10.1177/003368820403500205)
- Ramaiah, M. (1997). *Reciprocal teaching in enhancing the reading ability of ESL students at the tertiary level* (Unpublished doctoral Dissertation). University of Malaya, Malaysia.
- Ramírez, G., Chen, X., & Pasquarella, A. (2013). Cross-linguistic transfer of morphological awareness in Spanish-speaking English language learners: The facilitating effect of cognate knowledge. *Topics in Language Disorders*, 33, 73-92. <http://dx.doi.org/10.1097/TLD.0b013e318280f55a>
- Ramírez, G., Chen, X., Geva, E., & Kiefer, H. (2010). Morphological awareness in Spanish – speaking English language learners: Within and cross language effects on word reading. *Reading and Writing: An Interdisciplinary Journal*, 23, 337-358. <http://dx.doi.org/10.1007/s1145-009-9203-9>
- Ramírez, G., Walton, P., & Roberts, W. (2014). Morphological awareness and vocabulary development among kindergarteners with different ability levels. *Journal of Learning Disabilities*, 47, 54-64. <http://dx.doi.org/10.1177/0022219413509970>
- Ranaivo-Malançon, B. (2004). Computational analysis of affixed words in Malay language. *In Proceedings of the 8th International Symposium on Malay/Indonesian Linguistics*, Penang, Malaysia.
- Raofi, S., Chan, S. H., Mukundan, J., & Rashid, S. M. (2014). A qualitative study into L2 writing strategies of university students. *English Language Teaching*, 7, 39-45. <http://dx.doi.org/10.5539/elt.v7n11p39>
- Rasier, L., & Hiligsmann, P. (2007). Prosodic transfer from L1 to L2. Theoretical and methodological issues. *Nouveaux Cahiers De Linguistique Française*, 28, 41-66.
- Read, J. (1988). Measuring the vocabulary knowledge of second language learners. *RELC Journal*, 19, 12-25. <https://dx.doi.org/10.1177/003368828801900202>
- Read, J. (2000). *Assessing vocabulary*. Cambridge, UK: Cambridge University Press.
- Reder, F., Marec-Breton, N., Gombert, J. E., & Demont, E. (2013). Second-language learners' advantage in metalinguistic awareness: A question of languages' characteristics. *British Journal of Educational Psychology*, 83, 686-702. <https://dx.doi.org/10.1111/bjep.12003>
- Rethinasamy, S., & Chuah, K. M. (2011). The Malaysian University English Test (MUET) and its use for placement purposes: A predictive validity study. *Electronic Journal of Foreign Language Teaching*, 8, 234-245.
- Rezaei, M. M., Jafari, S. M., & Younas, M. (2014). Iranian EFL students' writing anxiety: Levels, causes and implications. *English for Specific Purposes World*, 42, 1-10.

- Richards, J. C. (1976). The role of vocabulary teaching. *TESOL Quarterly*, 10, 77-89.
<https://dx.doi.org/10.2307/3585941>
- Richards, J. C., & Nunan, D. (eds.). (1990). *Second language teacher education*. Cambridge, UK: Cambridge University Press.
- Richek, M. A. (2005). Words are wonderful: Interactive, time-efficient strategies to teach meaning vocabulary. *The Reading Teacher*, 58, 414-423.
<https://dx.doi.org/10.1598/RT.58.5.1>
- Riches, C., & Genesee, F. (2006). Crosslinguistic and crossmodal issues. In F. Genesee, K. Lindholm-Leary, W. Saunders, & D. Christian (Eds.), *Educating English language learners: A synthesis of research evidence* (pp. 64-108). Cambridge, UK: Cambridge University Press.
- Ridhuan, M., & Abdullah, T. L. (2009). The writing strategies used by engineering ESL Malay learners. *Conference of the International Journal of Arts & Sciences*. Retrieved from <http://eprints.utp.edu.my/2035/>
- Ringbom, H. (1987). *The role of first language in foreign language acquisition*. Clevedon, UK: Multilingual Matters.
- Rosenthal, J., & Ehri, L. C. (2008). The mnemonic value of orthography for vocabulary learning. *Journal of Educational Psychology*, 100, 175-191.
<https://dx.doi.org/10.1037/0022-0663.100.1.175>
- Russel, J., & Spada, N. (2006). The effectiveness of corrective feedback for the acquisition of L2 grammar. In J. M. Norris & L. Ortega (Eds.), *Synthesizing research on language learning and teaching* (pp. 133-164). Amsterdam, The Netherlands: John Benjamins.
- Sabri, S. (2013). Item analysis of student comprehensive test for research in teaching beginner string ensemble using model based teaching among music students in public universities. *International Journal of Education and Research*, 1, 1-14.
- Saed, H. A., & Al-Omari, H. A. (2014). The effectiveness of a proposed program based on a mind mapping strategy in developing the writing achievement of eleventh grade EFL students in Jordan and their attitudes towards writing. *Journal of Education and Practice*, 5, 88-110.
- Sadeghi, A. (2013). *Towards a universal model of reading investigations into Persian monolingual and English-Persian bilingual speakers* (Unpublished doctoral dissertation). University of Canterbury, New Zealand.
- Saffran, E. M., & Marin, O. S. (1977). Reading without phonology: Evidence from aphasia. *The Quarterly Journal of Experimental Psychology*, 29, 515-525.
<https://dx.doi.org/10.1080/14640747708400627>
- Safiah Karim, N. (1995). *Malay grammar for academics and professionals*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.

- Saiegh-Haddad, E., & Geva, E. (2008). Morphological awareness, phonological awareness, and reading in English–Arabic bilingual children. *Reading and Writing, 21*, 481-504. <https://dx.doi.org/10.1007/s11145-007-9074-x>
- Saiegh-Haddad, E., Kogan, N., & Walters, J. (2010). Universal and language-specific constraints on phonemic awareness: Evidence from Russian–Hebrew bilingual children. *Reading and Writing, 23*, 359-384. <http://dx.doi.org/10.1007/s11145-009-9204-8>
- Salleh, A. H. (1993). *Laporan jawatankuasa mengkaji penggunaan Bahasa Malaysia*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Sams, L. (2003). How to teach grammar, analytic thinking, and writing: A method that works. *English Journal, 92*, 57-65.
- Sandra, D. (1994). The morphology of the mental lexicon: Internal word structure viewed from psycholinguistic perspective. *Language and Cognitive Processes, 9*, 227-269. <https://dx.doi.org/10.1080/01690969408402119>
- Santos, T. (1988). Professors' reactions to the academic writing of nonnative-speaking students. *TESOL Quarterly, 22*, 70-91. <https://dx.doi.org/10.2307/3587062>
- Sasaki, M. (2002). Building an empirically-based model of EFL learners' writing processes. In S. Ransdell & M. L. Barbier (Eds.), *New directions for research in L2 writing* (pp. 49–80). Dordrecht, The Netherlands: Kluwer Academic.
- Sasaki, M., & Hirose, K. (1996). Explanatory variables for EFL students' expository writing. *Language Learning, 46*, 137-174. <https://dx.doi.org/10.1111/j.1467-1770.1996.tb00643.x>
- Sapsford, R., & Jupp, V. (1998). *Data collection and analysis*. London, UK: Sage.
- Sariyan, A. (2004). *Tertib mengarang: Asas retorik untuk pelajar dan pendidik*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Savage, K. L., Bitterlin, G., & Price, D. (2010). *Grammar matters: Teaching grammar in adult ESL programs*. New York, NY: Cambridge University Press.
- Saville-Troike, M. (2006). *Introducing second language acquisition*. Cambridge, UK: Cambridge University Press.
- Scardamalia, M. (1981). How children cope with the cognitive demands of writing. In C. Frederiksen & J. Dominic (Eds.), *Writing: The nature, development, and teaching of written communication* (pp. 81-103). Hillsdale, NJ: Lawrence Erlbaum.
- Scardamalia, M., & Bereiter, M. (1987). Knowledge telling and knowledge transforming in written composition. In S. Rosenberg (Ed.), *Advances in applied psycholinguistics, Vol. 2: Reading, writing, and language learning* (pp. 142-175). Cambridge, UK: Cambridge University Press.

- Schiff, R., & Calif, S. (2007). Role of phonological and morphological; awareness in L2 oral word reading. *Language Learning*, 57, 271-298. <http://dx.doi.org/10.1111/j.1467-9922.2007.00409.x>
- Schmitt, N. (1998). Tracking the incremental acquisition of second language vocabulary: A longitudinal study. *Language Learning*, 48, 281-317. <https://dx.doi.org/10.1111/1467-9922.00042>
- Schmitt, N. (2000). *Vocabulary in language teaching*. Cambridge, UK: Cambridge University Press.
- Schmitt, N., Schmitt, D., & Clapham, C. (2001). Developing and exploring the behaviour of two new versions of the vocabulary levels test. *Language Testing*, 18, 55-88. <https://dx.doi.org/10.1177/026553220101800103>
- Schoonen, R., Snellings, P., Stevenson, M., & Van Gelderen, A. (2009). Towards a blueprint of the foreign language writer: The linguistic and cognitive demands of foreign language writing. In R. M. Manchón (Ed.), *Learning, teaching, and researching writing in foreign language contexts* (pp. 77-101). Clevedon, UK: Multilingual Matters.
- Schoonen, R., van Gelderen, A., de Glopper, K., Hulstijn, J., Simis, A., Snellings, P., & Stevenson, M. (2003). First language and second language writing: The role of linguistic knowledge, speed of processing, and metacognitive knowledge. *Language Learning*, 53, 165-202. <https://dx.doi.org/10.1111/1467-9922.00213>
- Schoonen, R., van Gelderen, A., Stoel, R. D., Hulstijn, J., & de Glopper, K. (2011). Modeling the development of L1 and EFL writing proficiency of secondary school students. *Language Learning*, 61, 31-79. <https://dx.doi.org/10.1111/j.1467-9922.2010.00590.x>
- Schwartz, M. (2014). The impact of the first language first model on vocabulary development among preschool bilingual children. *Reading and Writing*, 27, 709-732. <http://dx.doi.org/10.1007/s11145-013-9463-2>
- Schwartz, M., Leikin, M., & Share, D. L. (2005). Bi-literate bilingualism versus mono-literate bilingualism: A longitudinal study of reading acquisition in Hebrew (L2) among Russian-speaking (L1) children. *Written Language and Literacy*, 8, 179-207. <https://dx.doi.org/10.1075/wll.8.2.08shw>
- Schwartz, M., Share, D. L., Leikin, M., & Kozminsky, E. (2008). On the benefits of bi-literacy: Just a head start in reading or specific orthographic insights? *Reading and Writing*, 21, 905-927. <https://dx.doi.org/10.1007/s11145-007-9097-3>
- Scott, J. (1997). *The role of L1-based concepts in L2 lexical reference* (Unpublished doctoral dissertation). Indiana University Bloomington, ILs.
- Sedita, J. (2005). Effective vocabulary instruction. *Insights on Learning Disabilities*, 2, 33-45.
- Seng, T. C. (2004). How alienated are our students in the ESL class? In J. Mukundan,

- D. Z. Abidin, & A. A. Hussin (Eds.), *ELT matters 1: Issues in English language learning and teaching* (pp. 255-260). Serdang, Malaysia: Universiti Putra Malaysia Press.
- Serratrice, L. (2013). Cross-linguistic influence in bilingual development: Determinants and mechanisms. *Linguistic Approaches to Bilingualism*, 3, 3-25.
<https://dx.doi.org/10.1075/lab.3.1.01ser>
- Seymour, P. H. (2005). Early reading development in European orthographies. In M. Snowling & C. Hulme (Eds.), *The science of reading: A handbook* (pp. 296-315). Oxford, UK: Blackwell.
- Seymour, P. H., Aro, M., & Erskine, J. M. (2003). Foundation literacy acquisition in European orthographies. *British Journal of psychology*, 94, 143-174.
<https://dx.doi.org/10.1348/000712603321661859>
- Shah, S. S. A., Othman, J., & Senom, F. (2017). The pronunciation component in ESL lessons: Teachers' beliefs and practices. *Indonesian Journal of Applied Linguistics*, 6, 193-203. <http://dx.doi.org/10.17509/ijal.v6i2.4844>
- Shak, P., Chang, S. L., & Stephen, J. (2016). Pronunciation problems: A case study on English pronunciation errors of low proficient students. *The International Journal of Language Education and Applied Linguistics (IJLEAL)*, 4, 25-35.
- Shakkour, W. (2014). Cognitive skill transfer in English reading acquisition: Alphabetic and logographic languages compared. *Open Journal of Modern Linguistics*, 4, 544-562.
<http://dx.doi.org/10.4236/ojml.2014.44048>
- Shamsuzzaman, M. (2015). *Perceptions and practices in learning and teaching second language writing in English: Influences of backgrounds and language skills* (Unpublished doctoral dissertation). University of Canterbury, New Zealand.
- Shanahan, T., MacArthur, C. A., Graham, S., & Fitzgerald, J. (2006). Relations among oral language, reading, and writing development. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 171-183). New York, NY: Guilford Press.
- Share, D. L. (1995). Phonological recoding and self-teaching: Sine qua non of reading acquisition. *Cognition*, 55, 151-218. [http://dx.doi.org/10.1016/0010-0277\(94\)00645-2](http://dx.doi.org/10.1016/0010-0277(94)00645-2)
- Share, D. L. (1999). Phonological recoding and orthographic learning: A direct test of the self-teaching hypothesis. *Journal of Experimental Child Psychology*, 72, 95-129.
<http://dx.doi.org/10.1006/jecp.1998.2481>
- Share, D. L. (2004). Orthographic learning at a glance: On the time course and developmental onset of self-teaching. *Journal of Experimental Child Psychology*, 87, 267-298.
<http://dx.doi.org/10.1016/j.jecp.2004.01.001>
- Sharum, M. Y., Hamzah, Z. A. Z., Wahab, M. R. A., & Ismail, M. R. (2010). Formal properties and characteristics of Malay rhythmic reduplication. *Procedia-Social and Behavioral Sciences*, 8, 750-756. <https://dx.doi.org/10.1016/j.sbspro.2010.12.104>

- Sharwood-Smith, M., & Kellerman, E. (1986). *Cross linguistic influence in second language acquisition*. New York, NY: Pergamon Press.
- Shin, Y. (2008). *The effects of planning on L2 writing: A study of Korean learners of English as a foreign language* (Unpublished doctoral dissertation). University of Iowa, United States.
- Shuib, M. (1991). *An analysis of Malaysian learners' English agreement errors* (Unpublished masters' dissertation). University of Essex, England.
- Sidek, H. M., & Wahi, W. (2018). The Malaysian EFL education: A brief historical review and literacy issues. *Studies in Asian Social Science*, 5, 21-30. <https://dx.doi.org/10.5430/sass.v5n1p21>
- Siegel, L. S. (2008). Morphological awareness skills of English language learners and children with dyslexia. *Topics in Language Disorders*, 28, 15-27. <http://dx.doi.org/10.1097/01.adt.0000311413.75804.60>
- Siegel, L. S., Share, D., & Geva, E. (1995). Evidence for superior orthographic skills in dyslexics. *Psychological Science*, 6, 250-254. <https://dx.doi.org/10.1111/j.1467-9280.1995.tb00601.x>
- Silva, T. (1992). L1 vs L2 writing: ESL graduate students' perceptions. *TESL Canada Journal*, 10, 27-48. <https://dx.doi.org/10.18806/tesl.v10i1.610>
- Silva, T. (1993). Toward an understanding of the distinct nature of L2 writing: The ESL research and its implications. *TESOL Quarterly*, 27, 657-677. <https://dx.doi.org/10.2307/3587400>
- Silva, T., & Leki, I. (2004). Family matters: The influence of applied linguistics and composition studies on second language writing studies: Past, present, and future. *The Modern Language Journal*, 88, 1-13. <https://dx.doi.org/10.1111/j.0026-7902.2004.00215.x>.
- Silveira, R. (2007). The role of task-type and orthography in the production of word-final consonants. *Revista de Estudos da Linguagem*, 15, 143-176.
- Silveira, R. (2009) Investigating the role of orthography in the acquisition of L2 pronunciation: A case study. In M. Watkins, A. Rauber, & B. Baptista, B. (Eds.), *Recent research in second language phonetics/phonology: perception and production* (pp. 270-290). Newcastle upon Tyne, UK: Cambridge Scholars.
- Silveira, R. (2012). PL2 production of English word-final consonants: The role of orthography and learner profile variables. *Trabalhos em Linguística Aplicada*, 51, 13-34. <http://dx.doi.org/10.1590/S0103-18132012000100002>.
- Silvén, M., Poskiparta, E., & Niemi, P. (2004). The odds of becoming a precocious reader of Finnish. *Journal of Educational Psychology*, 96, 152-164. <http://dx.doi.org/10.1037/0022-0663.96.1.152>

- Silvén, M., Poskiparta, E., Niemi, P., & Voeten, M. (2007). Precursors of reading skill from infancy to first grade in Finnish: Continuity and change in a highly inflected language. *Journal of Educational Psychology, 99*, 516-531. <http://dx.doi.org/10.1037/0022-0663.99.3.516>
- Sinclair, C. (2010). *Grammar: A friendly approach*. Maidenhead, UK: Open University Press.
- Singer, B. D., & Bashir, A. S. (2004). Developmental variations in writing composition skills. In C. A. Stone, E. R. Silliman, B. J. Ehren, & K. Apel (Eds.), *Handbook of language and literacy: Development and disorders* (pp. 559-582). New York, NY: Guilford.
- Singh, S., & Singh, K. (1977). *Phonetics: Principles and practices*. Baltimore, US: University Park Press.
- Smith, C. (2011). *Narrative writing in native English and ESL learners: Developmental trajectories and predictors* (Unpublished doctoral dissertation). University of Toronto, Canada.
- Soderberg, C. D., & Olson, K. S. (2008). Illustrations of the IPA: Indonesian. *Journal of the International Phonetic Association, 38*, 209-213. <https://dx.doi.org/10.1017/S0025100308003320>
- Solati-Dehkordi, S. A., & Salehi, H. (2016). Impact of explicit vocabulary instruction on writing achievement of upper-intermediate EFL learners. *International Education Studies, 9*, 141-154. <http://dx.doi.org/10.5539/ies.v9n4p141>
- Solé Sabater, M. J. (1991). Stress and rhythm in English. *Revista Alicantina De Estudios Ingleses, 4*, 145-162. <http://dx.doi.org/10.14198/raei.1991.4.13>
- Spada, N., & Lightbown, P. M. (2006). *How languages are learned*. New York, NY: Oxford University Press.
- Sparks, R. L., Patton, J., Ganschow, L., Humbach, N., & Javorsky, J. (2008). Early first language reading and spelling skills predict later second-language reading and spelling skills. *Journal of Educational Psychology, 100*, 162-174. <https://dx.doi.org/10.1037/0022-0663.100.1.162>
- Sparks, R. L., Ganschow, L., Patton, J., Artzer, M., Siebenhar, D., & Plageman, M. (1997). Prediction of foreign language proficiency. *Journal of Educational Psychology, 89*, 549-561. <http://dx.doi.org/10.1037/0022-0663.89.3.549>
- Stahl, S. A. (2005). Four problems with teaching word meanings (and what to do to make vocabulary an integral part of instruction). In E. H. Hiebert & M. L. Kamil (Eds.), *Teaching and learning vocabulary: Bringing research to practice* (pp. 95-114). Mahwah, NJ: Lawrence Erlbaum.
- Stahl, S. A., & Murray, B. A. (1994). Defining phonological awareness and its relationship to early reading. *Journal of Educational Psychology, 86*, 221-234. <http://dx.doi.org/10.1037/0022-0663.86.2.221>
- Stainthorp, R., Powell, D., & Stuart, M. (2013). The relationship between rapid naming and

- word spelling in English. *Journal of Research in Reading*, 36, 371-388.
- Stapa, M. (1993). Using Bahasa Melayu while writing in English: A case study of Malay students. In *Research in English language teaching* (pp. 147-160). Johor, Malaysia: Universiti Teknologi Malaysia.
- Stapa, S. H., & Abdul Majid, A. H. (2006). The use of first language in limited English proficiency classes: Good, bad or ugly? *e-BANGI: Jurnal Sains Sosial dan Kemanusiaan*, 1, 1-12.
- Stapa, S. H., & Izahar, M. M. (2010). Analysis of errors in subject-verb agreement among Malaysian ESL learners. *3L: The Southeast Asian Journal of English Language Studies*, 16, 1-18.
- Stanovich, K. E. (1992). Speculations on the causes and consequences of individual differences in early reading acquisition. In P. B. Gough, L. C. Ehri, & R. Treiman (Eds.), *Reading acquisition* (pp. 307-342). Hillsdale, NJ: Lawrence Erlbaum.
- Stanovich, K. E., & West, R. F. (1989). Exposure to print and orthographic processing. *Reading Research Quarterly*, 24, 402-433. <http://dx.doi.org/10.2307/747605>
- Stæhr, L. S. (2008). Vocabulary size and the skills of listening, reading and writing. *Language Learning Journal*, 36, 139-152. <https://dx.doi.org/10.1080/09571730802389975>
- Stevenson, M., Schoonen, R., & De Glopper, K. (2006). Revising in two languages: A multidimensional comparison of online writing revisions in L1 and FL. *Journal of Second Language Writing*, 15, 201-233. <https://dx.doi.org/10.1016/j.jslw.2006.06.002>
- Stewart, J., & White, D. (2011). Estimating guessing effects on the vocabulary levels test for differing degrees of word knowledge. *TESOL Quarterly*, 45, 370-80. <https://dx.doi.org/10.5054/tq.2011.254523>
- Steinhauer, H. (2005). Colonial history and language policy in insular Southeast Asia and Madagascar. In K. A. Adelaar & N. Himmelman (Eds.), *The Austronesian languages of Asia and Madagascar* (pp. 65-86). London, UK: Routledge.
- Stephen, J. (2011). *English loan words in the Malay print media and their implications for English vocabulary acquisition* (Unpublished doctoral dissertation). University of Auckland, New Zealand.
- Stephen, J. (2013). English in Malaysia: A case of the past that never really went away? *English Today*, 29, 3-8. <https://dx.doi.org/10.1017/S0266078413000084>
- Sun-Alperin, M. K. (2007). *Cross-language transfer of phonological and orthographic processing skills in Spanish-speaking children learning to read and spell in English* (Unpublished doctoral dissertation). University of Maryland, College Park, United States.
- Sun-Alperin, M. K., & Wang, M. (2011). Cross-language transfer of phonological and orthographic processing skills from Spanish L1 to English L2. *Reading and Writing*, 24, 591-614. <https://dx.doi.org/10.1007/s11145-009-9221-7>

- Sua, T. Y., & Raman, S. R. (2007). Problems and challenges of learning through a second language: The case of teaching of science and mathematics in English in the Malaysian primary schools. *Kajian Malaysia*, 25, 29-54.
- Sze, W. P., & Liow, R. S. J. (2011). Morphophonemic transfer in English second language learners. *Bilingualism: Language and Cognition*, 14, 423-432.
<https://dx.doi.org/10.1017/S1366728910000283>
- Sze, W. P., & Liow, R. S. J. (2008). Cross-linguistic generalization of morphological processes. *Presented at the Workshop on Writing Systems: Analysis, Acquisition & Use*. Institute of Education, London.
- Tabatabaei, O., & Dehghani, M. (2012). Assessing the reliability of grammaticality judgment tests. *Procedia-Social and Behavioral Sciences*, 31, 173-182.
<https://dx.doi.org/10.1016/j.sbspro.2011.12.037>
- Tabatabaei, O., & Yakhabi, M. (2011). The relationship between morphological awareness and vocabulary size of EFL learners. *English Language Teaching*, 4, 262-273.
<https://dx.doi.org/10.5539/elt.v4n4p262>
- Tadmor, U. (2009). Malay-Indonesian. In B. Comrie (Ed.), *The world major languages* (2nd ed., pp. 791-818). London, UK: Routledge.
- Tafa, E., & Manolitsis, G. (2008). A longitudinal literacy profile of Greek precocious readers. *Reading Research Quarterly*, 43, 165-185. <http://dx.doi.org/10.1598/RRQ.43.2.4>
- Talebi, S. H. (2013). Cross-linguistic transfer (from L1 to L2, L2 to L1, and L2 to L3) of reading strategies in a multicompetent mind. *Journal of Language Teaching and Research*, 4, 432-436. <http://dx.doi.org/10.4304/jltr.4.2.432-436>
- Talebi, S. H. (2014). Cross-linguistic transfer among Iranian learners of English as a foreign language. *Issues in Educational Research*, 24, 212-227.
- Talerico, D. M. (2007). *A comparison of morphemic analysis and whole word meaning instruction on sixth-grade students' knowledge of prefixes, taught words, and transfer words* (Unpublished doctoral dissertation). University of Pittsburgh, United States.
- Tan, S. (2009). Misuses of KR-20 and Cronbach's alpha reliability coefficients. *Egitim ve Bilim*, 34, 101-112.
- Tan, T. P., & Ranaivo-Malançon, B. (2009). Malay grapheme to phoneme tool for automatic speech recognition. In *Proc Workshop of Malaysia and Indonesia Language Engineering (MALINDO)*, Singapore.
- Tan, T. S., Chea, L. Y., Zainuddin, Z. M., Salleh, S. H. A., & Chai, H. Y. (2011). Unit selection for Malay text-to-speech system using segmental context and simulated annealing. *Scientific Research and Essays*, 6, 4281-4289.
<http://dx.doi.org/10.5897/SRE11.931>
- Taylor, O. L., & Payne, K. T. (1983). Culturally valid testing: A proactive approach. *Topics in Language Disorders*, 3, 8-20. <http://dx.doi.org/10.1097/00011363-198306000-00005>

- Teoh, B. S. (1988). *Aspects of Malay phonology revisited: A non-linear approach* (Unpublished doctoral dissertation). University of Illinois, United States.
- Teoh, B. S. (1994). *The sound system of Malay revisited*. Kuala Lumpur, Malaysia: Dewan Bahasa dan Pustaka.
- Ter Kuile, H., Veldhuis, M., Van Veen, S. C., & Wicherts, J. M. (2011). Bilingual education, metalinguistic awareness, and the understanding of an unknown language. *Bilingualism: Language and Cognition*, *14*, 233-242.
<http://dx.doi.org/10.1017/S1366728910000258>
- Thorndike, E. L., & Lorge, I. (1944). *The teacher's word book of 30,000 words*. New York, NY: Teachers College Press, Columbia University.
- Tighe, E. L. (2012). *An investigation of the dimensionality of morphological and vocabulary knowledge in adult basic education students* (Unpublished masters' dissertation). The Florida State University, United States.
- Tillema, M. (2012). *Writing in first and second language: Empirical studies on text quality and writing processes* (Unpublished doctoral dissertation). Utrecht University, The Netherlands.
- Tims, T. (2013). *Exploring the relationship between orthographic processing and word Reading* (Unpublished masters' dissertation). Dalhousie University, Canada.
- To, N. L., Tighe, E. L., & Binder, K. S. (2016). Investigating morphological awareness and the processing of transparent and opaque words in adults with low literacy skills and in skilled readers. *Journal of Research in Reading*, *39*, 171-188.
<https://dx.doi.org/10.1111/1467-9817.12036>
- Tong, X., McBride-Chang, C., Shu, H., & Wong, A. M. (2009). Morphological awareness, orthographic knowledge, and spelling errors: Keys to understanding early Chinese literacy acquisition. *Scientific Studies of Reading*, *13*, 426-452.
<https://dx.doi.org/10.1080/10888430903162910>
- Trapman, M., van Gelderen, A., van Schooten, E., & Hulstijn, J. (2018). Writing proficiency level and writing development of low-achieving adolescents: The roles of linguistic knowledge, fluency, and metacognitive knowledge. *Reading and Writing*, *31*, 893-926.
- Treffers-Daller, J., & Sakel, J. (2012). Why transfer is a key aspect of language use and processing in bilinguals and L2-users. *International Journal of Bilingualism*, *16*, 3-10.
<https://dx.doi.org/10.1177/1367006911403206>
- Treiman, R. (1993). *Beginning to spell: A study of first-grade children*. Oxford, UK: Oxford University Press.
- Treiman, R., & Cassar, M. (1997). Spelling acquisition in English. In C. A. Perfetti, L. Rieben, & M. Fayol (Eds.), *Learning to spell: Research, theory, and practice across languages* (pp. 61-80). Mahwah, NJ: Lawrence Erlbaum.

- Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Language Learning*, 46, 327-369. <https://dx.doi.org/10.1111/j.1467-1770.1996.tb01238.x>
- Truscott, J., & Hsu, A. Y. P. (2008). Error correction, revision, and learning. *Journal of Second Language Writing*, 17, 292-305. <https://dx.doi.org/10.1016/j.jslw.2008.05.003>
- Tsai, Y., & Tsou, C. H. (2009). A standardised English language proficiency test as the graduation benchmark: Student perspectives on its application in higher education. *Assessment in Education: Principles, Policy & Practice*, 16, 319-330. <https://dx.doi.org/10.1080/09695940903319711>
- Tsang, W. K., & Wong, M. (2000). Giving grammar the place it deserves in process writing. *Prospect*, 15, 4-45.
- Tse, A. Y. H. (2014). A case study of grammatical errors made by Malaysian students. *International Journal of Science Commerce and Humanities*, 2, 154-160.
- Tunmer, W. E., & Myhill, M. E. (1984). Metalinguistic awareness and bilingualism. In W.E. Tunmer, C. Pratt, & M. L. Herriman (Eds.), *Metalinguistic awareness in children: Theory, research and implication* (pp. 169-187). Berlin, Heidelberg: Springer-Verlag.
- Tyler, A., & Nagy, W. (1989). The acquisition of English derivational morphology. *Journal of Memory and Language*, 28, 649-667. [http://dx.doi.org/10.1016/0749-596X\(89\)90002-8](http://dx.doi.org/10.1016/0749-596X(89)90002-8)
- Uibu, K., & Liiver, M. (2015). Students' grammar mistakes and effective teaching strategies. *International Journal of Teaching and Education*, 3, 70-87.
- Unsworth, S. (2005). Child L2, adult L2, child L1: Differences and similarities. A study on the acquisition of direct object scrambling in Dutch. *Language Acquisition*, 14, 215-217. <http://dx.doi.org/10.1080/10489220701353891>
- Upton, T. A., & Lee-Thompson, L. C. (2001). The role of the first language in second language reading. *Studies in Second Language Acquisition*, 23, 469-495.
- Uzawa, K. (1996). Second language learners' processes of L1 writing, L2 writing and translation from L1 into L2. *Journal of Second Language Writing*, 5, 271-294. [https://dx.doi.org/10.1016/S1060-3743\(96\)90005-3](https://dx.doi.org/10.1016/S1060-3743(96)90005-3)
- Uzawa, K., & Cumming, A. (1989). Writing strategies in Japanese as a foreign language: Lowering or keeping up the standards. *The Canadian Modern Language Review*, 46, 178-194.
- Vaughn, C. (1991). Holistic assessment: What goes on in the rater's minds? In L. Ham P-Lyons (Ed.), *Assessing second language writing in academic contexts* (pp. 111-125). Norwood, NJ: Ablex.
- Vahdatinejad, S. (2008). *Students' error analysis and attitude towards teacher feedback using a selected software: A case study* (Unpublished master's dissertation). Universiti Kebangsaan Malaysia, Malaysia.

- Van den Bergh, H., & Rijlaarsdam, G. (1996). The dynamics of composing: Modelling writing process data. In C. M. Levy & S. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences and applications* (pp. 207-232). Mahwah, NJ: Erlbaum.
- Van Gelderen, A., Schoonen, R., Stoel, R. D., De Glopper, K., & Hulstijn, J. (2007). Development of adolescent reading comprehension in language 1 and language 2: A longitudinal analysis of constituent components. *Journal of Educational Psychology*, 99, 477-491. <http://dx.doi.org/10.1037/0022-0663.99.3.477>
- Van Weijen, D. (2009). *Writing processes, text quality, and task effects: Empirical studies in first and second language writing* (Unpublished doctoral dissertation). Utrecht University, Netherlands.
- Van Zanten, E., Goedemans, R., & Pacilly, J. (2003). The status of word stress in Indonesian. In J. M. van de Weijer, V. J. van Heuven, & H. G. van der Hulst (Eds.), *The phonological spectrum. Volume II: Suprasegmental structure* (pp. 151-175). Amsterdam/Philadelphia: John Benjamins.
- Van Weijen, D., Van den Bergh, H., Rijlaarsdam, G., & Sanders, T. (2009). L1 use during L2 writing: An empirical study of a complex phenomenon. *Journal of Second Language Writing*, 18, 235-250. <https://dx.doi.org/10.1016/j.jslw.2009.06.003>
- Varatharajoo, C. (2016). *The effectiveness of morphemic analysis instruction towards ESL students' vocabulary development* (Unpublished doctoral dissertation). University of Malaya, Malaysia.
- Varatharajoo, C., Asmawi, A. B., & Abedalaziz, N. A. M. (2014). Measuring morphological knowledge among secondary school students: Implications for effective vocabulary acquisition. *Malaysian Journal of Languages and Linguistics*, 3, 129-138.
- Varatharajoo, C., Asmawi, A. B., & Abedalaziz, N. A. M. (2015). Morphemic analysis awareness: A boon or bane on ESL students' vocabulary learning strategy. *World Academy of Science, Engineering and Technology, International Journal of Social, Behavioral, Educational, Economic and Management Engineering*, 9, 2358-2364.
- Varatharajoo, C., Asmawi, A. B., Abdallah, N., & Abedalaziz, M. (2015). The awareness of morphemic knowledge for young adults' vocabulary learning. *The Malaysian Online Journal of Educational Science*, 3, 45-56.
- Varnhagen, C. K., Boechler, P. M., & Steffler, D. J. (1999). Phonological and orthographic influences on children's vowel spelling. *Scientific Studies of Reading*, 3, 363-379. http://dx.doi.org/10.1207/s1532799xssr0304_3
- Venezky, R. L. (1970). *The structure of English orthography*. The Hague, The Netherlands: Moulton.
- Voon Foo, C. T. (2007). *The effects of the process-genre approach to writing instruction on the expository essays of ESL students in a Malaysian secondary school* (Unpublished doctoral dissertation). Universiti Sains Malaysia, Malaysia.

- Verhoeven, L. (2000). Components in early second language reading and spelling. *Scientific Studies of Reading*, 4, 313-330. https://dx.doi.org/10.1207/S1532799XSSR0404_4
- Verhallen, M., & Schoonen, R. (1998). Lexical knowledge in L1 and L2 of third and fifth graders. *Applied Linguistics*, 19, 452-470. <https://dx.doi.org/10.1093/applin/19.4.452>
- Vethamaiccam, M., & Ganapathy, M. (2017). Analysing errors among form one students' written English composition in a private Chinese school. *Asian Journal of Education and e-Learning*, 5, 16-26.
- Wade-Woolley, L., & Geva, E. (2000). Processing novel phonemic contrasts in the acquisition of L2 word reading. *Scientific Studies of Reading*, 4, 295-311. http://dx.doi.org/10.1207/S1532799XSSR0404_3
- Wagner, R. K., & Torgesen, J. K. (1987). The nature of phonological processing and its causal role in the acquisition of reading skills. *Psychological Bulletin*, 101, 192-212. <http://dx.doi.org/10.1037/0033-2909.101.2.192>
- Wakely, M. B., Hooper, S. R., de Kruif, R. E., & Swartz, C. (2006). Subtypes of written expression in elementary school children: A linguistic-based model. *Developmental Neuropsychology*, 29, 125-159. https://dx.doi.org/10.1207/s15326942dn2901_7
- Walker, J., & Hauerwas, L. B. (2006). Development of phonological, morphological, and orthographic knowledge in young spellers: The case of inflected verbs. *Reading and Writing*, 19, 819-843. <http://dx.doi.org/10.1007/s11145-006-9006-1>
- Walters, J., & Wolf, Y. (1996). Language awareness in non-native writers: Metalinguistic judgments of need for revision. *Language Awareness*, 5, 3-25. <http://dx.doi.org/10.1080/09658416.1996.9959888>
- Wang, C., Porfeli, E., & Algozzine, B. (2008). Development of oral reading fluency in young children at risk for failure. *Journal of Education for Students Placed at Risk*, 13, 402-425. <https://dx.doi.org/10.1080/10824660802427702>
- Wang, H. C., Nickels, L., Nation, K., & Castles, A. (2013). Predictors of orthographic learning of regular and irregular words. *Scientific Studies of Reading*, 17, 369-384. <http://dx.doi.org/10.1080/10888438.2012.749879>
- Wang, L. (2003). Switching to first language among writers with differing second-language proficiency. *Journal of Second Language Writing*, 12, 347-375. <https://dx.doi.org/10.1016/j.jslw.2003.08.003>
- Wang, M., Koda, K., & Perfetti, C. A. (2003). Alphabetic and nonalphabetic L1 effects in English word identification: A comparison of Korean and Chinese English L2 learners. *Cognition*, 87, 129-149. [https://dx.doi.org/10.1016/s0010-0277\(02\)00232-9](https://dx.doi.org/10.1016/s0010-0277(02)00232-9)
- Wang, M., Perfetti, C. A., & Liu, Y. (2005). Chinese-English biliteracy acquisition: Cross-language and writing system transfer. *Cognition*, 97, 67-88. <https://dx.doi.org/10.1016/j.cognition.2004.10.001>

- Wang, M., Yang, C., & Cheng, C. (2009). The contributions of phonology, orthography, and morphology in Chinese-English biliteracy acquisition. *Applied Psycholinguistics*, *30*, 291-314. <http://dx.doi.org/10.1017/S0142716409090122>
- Wang, S. (2010). The significance of English grammar to middle school students in china. *Journal of Language Teaching and Research*, *1*, 313-319. <http://dx.doi.org/10.4304/jltr.1.3.313-319>
- Wang, W., & Wen, Q. (2002). L1 use in the L2 composing process: An exploratory study of 16 Chinese EFL writers. *Journal of Second Language Writing*, *11*, 225-246.
- Wang, W. Y., & Wen, Q. F. (2002). L1 use and English writing quality. *Journal of Foreign Languages Research*, *4*, 64-76.
- Wang, X. (2014). The relationship between lexical diversity and EFL writing proficiency. *University of Sydney Papers in TESOL*, *9*, 65-88.
- Waring, R. (2002). Scales of vocabulary knowledge in second language vocabulary assessment. Retrieved from <http://www.robwaring.org/papers/various/scales.htm>
- Watson, J. P. K. (1983). Cultural pluralism, nation-building and educational policies in Peninsular Malaysia. In K. Chris (Ed.), *Language planning and language education* (pp. 132-150). London, UK: George Allen & Unwin.
- Webb, S. A., & Sasao, Y. (2013). New directions in vocabulary testing. *RELC Journal*, *44*, 263-277. <http://dx.doi.org/10.1177/0033688213500582>
- Webb, S. (2008). Receptive and productive vocabulary sizes of L2 learners. *Studies in Second Language Acquisition*, *30*, 79-95. <http://dx.doi.org/10.1017/S0272263108080042>
- Wee, R. (2009). Sources of errors: An interplay of interlingual influence and intralingual factors. *European Journal of Social Sciences*, *11*, 349-39.
- Wei, M., & Zhou, Y. (2013). Transfer of phonological awareness from Thai to English among grade-three students in Thailand. *Reading Matrix: An International Online Journal*, *13*, 1-13.
- Weigle, S. C. (2002). *Assessing writing*. Cambridge, UK: Cambridge University Press.
- Weinrich, U. (1953). *Languages in contact*. New York, NY: Linguistic Circle of New York.
- Wells, C. S., & Wollack, J. A. (2003). *An instructor's guide to understanding test reliability*. Testing & Evaluation Services: University of Wisconsin.
- West, M. P. (1953). *A general service list of English words*. London, UK: Longman.
- White, L. (2003). *Second language acquisition and Universal Grammar*. New York, NY: Cambridge University Press.

- White, T. G., Graves, M. F., & Slater, W. H. (1990). Growth of reading vocabulary in diverse elementary schools: Decoding and word meaning. *Journal of Educational Psychology*, 82, 281-290. <http://dx.doi.org/10.1037/0022-0663.82.2.281>
- Widdowson, H. G. (1989). Knowledge of language and ability for use. *Applied linguistics*, 10, 128-137. <https://dx.doi.org/10.1093/applin/10.2.128>
- Widodo, H. (2006). Approaches and procedures for teaching grammar. *English Teaching*, 5, 122-141.
- Wilcox, K. C., Yagelski, R., & Yu, F. (2014). The nature of error in adolescent student writing. *Reading and Writing*, 27, 1073-1094.
- Wilkins, D. A. (1972). *Linguistics in language teaching*. Cambridge, UK: Cambridge University Press.
- Williams, J. (2005). *Teaching writing in second and foreign language classrooms*. Boston, US: McGraw-Hill.
- Wilson-Fowler, E. B. (2011). *Influence of morphological awareness on college students' literacy skills: A path analytic approach* (Unpublished doctoral dissertation). The Florida State University, United States.
- Wilson-Fowler, E. B., & Apel, K. (2015). Influence of morphological awareness on college students' literacy skills: A path analytic approach. *Journal of Literacy Research*, 47, 405-432. <http://dx.doi.org/10.1177/1086296X15619730>
- Wing, A. M., & Baddeley, A. (1980). Spelling errors in handwriting: A corpus and a distributional analysis. In U. Frith (Ed.), *Cognitive processes in spelling* (pp. 251-285). London, UK: Academic Press.
- Winkel, H., & Salehuddin, K. (2014). Morphological parafoveal preview benefit effects when reading derived words in Malay. *Kajian Malaysia*, 32, 23-40.
- Winkel, H., & Widjaja, V. (2007). Phonological awareness, letter knowledge, and literacy development in Indonesian beginner readers and spellers. *Applied Psycholinguistics*, 28, 23-45. <http://dx.doi.org/10.1017/S0142716407070026>
- Wolfersberger, M. (2003). L1 to L2 writing process and strategy transfer: A look at lower proficiency writers. *TESL-EJ: Teaching English as a Second or Foreign Language*, 7, 1-15. Retrieved from <http://www.tesl-ej.org/wordpress/issues/volume7/ej26/ej26a6/>
- Wong, A. S. C. (2012). *An investigation of the predictors of L2 writing among adult ESL students* (Unpublished doctoral dissertation). University of Canterbury, New Zealand.
- Wong, S-M. J., & Dras, M. (2009). Contrastive analysis and native language identification. In ALTA 2009 - *Proceedings of the Australasian Language Technology Association Workshop* (pp. 53-61). Sydney, Australia: Association for Computational Linguistics (ACL).

- Woodall, B. R. (2002). Language-switching: Using the first language while writing in a second language. *Journal of Second Language Writing*, 11, 7-28. [https://dx.doi.org/10.1016/S1060-3743\(01\)00051-0](https://dx.doi.org/10.1016/S1060-3743(01)00051-0)
- Wyatt, T. A. (1995). Language development in African American English child speech. *Linguistics and Education*, 7, 7-22. [http://dx.doi.org/10.1016/0898-5898\(95\)90017-9](http://dx.doi.org/10.1016/0898-5898(95)90017-9)
- Xing, P., & Fulcher, G. (2007). Reliability assessment for two versions of vocabulary levels tests. *System*, 35, 182-91.
- Xu, S. H. (2010). *Teaching English language learners: Literacy strategies and resources for K-6*. New York, NY: Guilford Press.
- Xue, G., & Nation, I. S. P. (1984). A university word list. *Language Learning and Communication*, 3, 215-29.
- Yahaya, M. H. (2016). The Jawi manuscript: Its history, role, and function in the Malay archipelago. *Journal of Islamic Studies*, 4, 52-61. <https://dx.doi.org/10.15640/jisc.v4n1a7>
- Yahya, A., Ishak, H., Zainal, Z., Faghat, L. J., & Yahaya, N. (2012). Error analysis of L2 learners' writings, a case study. *International Conference on Language, Medias and Culture*. 33,114-118. Retrieved from <http://www.ipedr.com/vol33/023-ICLMC2012-L10016.pdf>
- Yahaya, M. F. B., Noor, M. A. B. M., Mokhtar, A. A. B., Rawian, R. B. M., Othman, M. B., & Jusoff, K. (2009). Teaching of mathematics and science in English: The teachers' voices. *English Language Teaching*, 2, 141-147.
- Yamaguchi, T. (2014). The pronunciation of TH in word-initial position in Malaysian English. *English Today*, 30, 13-21.
- Yamaguchi, T., & Pétursson, M. (2012). Voiceless stop consonants in Malaysian English – measuring the VOT values. *Asian Englishes*, 15, 60-79.
- Yang, L., Baba, K., & Cumming, A. (2004). Chinese and three Japanese adult learners of English. In D. Albrechtsen, K. Haastrup, & B. Henriksen (Eds.), *Angles on the English-Speaking world: Writing and vocabulary in foreign language acquisition*, (pp. 13-33). Denmark: Museum Tusulanum Press.
- Yang, M., Cooc, N., & Sheng, L. (2017). An investigation of cross-linguistic transfer between Chinese and English: A meta-analysis. *Asian-Pacific Journal of Second and Foreign Language Education*, 2, 1-21. <https://dx.doi.org/10.1186/s40862-017-0036-9>
- Yap, M. J., Liow, S. J. R., Jalil, S. B., & Faizal, S. S. B. (2010). The Malay Lexicon Project: A database of lexical statistics for 9,592 words. *Behaviour Research Methods*, 42, 992-1003. <http://dx.doi.org/10.3758/BRM.42.4.992>
- Yavaş, M. (2006). *Applied English phonology*. Malden, MA: Blackwell.

- Yelland, G. W., Pollard, J., & Mercuri, A. (1993). The metalinguistic benefits of limited contact with a second language. *Applied Psycholinguistics*, 14, 423-444.
<http://dx.doi.org/10.1017/S0142716400010687>
- Yeow, P. W. (2000). *The use of the non-target language in the teaching of English in Malaysian classrooms* (Unpublished doctoral dissertation). University of Leeds, England.
- Yeung, S. S., & Ganotice, F. A. (2014). The role of phonological awareness in biliteracy acquisition among Hong Kong Chinese kindergarteners who learn English-as-a-second language (ESL). *The Asia-Pacific Education Researcher*, 23, 333-343.
<http://dx.doi.org/10.1007/s40299-013-0108-7>
- Yin, C. C., & Ung, D. C. (2001). *Sub-stratum transfer among low proficiency students in written English* (Unpublished master's dissertation). University Malaya, Malaysia.
- Yong, S. E., Tan, B. H., & Yong, M. F. (2012). Speech disfluencies and mispronunciations in English oral communication among Malaysian undergraduates. *International Journal of Applied Linguistics & English Literature*, 1, 19-32.
- Young, J. Y. (2001). Malay/ Indonesian speaker. In Swan, M & Smith, B. (Eds.) *Learner English second edition a teacher's guide to interference and other problems* (pp. 279-295). Cambridge, UK: Cambridge University Press.
- Young-Scholten, M., & Archibald, J. (2000). Second language syllable structure. In J. Archibald (Ed.), *Second language acquisition and linguistic theory* (pp. 64-97). Oxford, UK: Blackwell.
- Younes, Z. B., & Albalawi, F. S. (2015). Exploring the most common types of writing problems among English language and translation major sophomore female students at Tabuk University. *Asian Journal of Basic and Applied Sciences*, 3, 7-26.
- Yu, L. M. (2004). *Language transfer and second language acquisition: Review, reflection and research*. Shanghai: Shanghai Foreign Language Press.
- Yüksel, İ. (2015). The key to second language writing performance: The relationship between lexical competence and writing. *Sino-US English Teaching*, 12, 539-555.
<http://dx.doi.org/10.17265/1539-8072/2015.08.001>
- Yunus, M. (1980). *The Malay sound system*. Kuala Lumpur, Malaysia: Penerbit Fajar Bakti.
- Yunus, M. M., & Chien, C. H. (2016). The use of mind mapping strategy in Malaysian University English Test (MUET) Writing. *Creative Education*, 7, 619-626.
<http://dx.doi.org/10.4236/ce.2016.74064>
- Yunus, M. M., Nordin, N., Salehi, H., Embi, M. A., & Salehi, Z. (2013). The use of Information and Communication Technology (ICT) in teaching ESL writing skills. *English Language Teaching*, 6, 1-8. <http://dx.doi.org/10.5539/elt.v6n7p1>
- Zaaba, Z., Ramadan, F. I., Anning, I. N. A., Gunggut, H., & Umemoto, K. (2011). Language in education policy: A study of policy adjustment strategy in Malaysia. *International Journal of Education and Information Technologies*, 5, 157-165.

- Zaharani, A. (1998). *Phonology and morphology interface in Malay an optimality theoretic account* (Unpublished doctoral dissertation). University of Essex, England.
- Zaharani A. (2009). Memasyarakatkan kajian morfologi dalam dunia Melayu. *Jurnal Bahasa*, 9, 118-136.
- Zahidi, M. A. (2012). *Self-regulation in English language learning: Case studies of six Malaysian undergraduates* (Unpublished doctoral dissertation). Victoria University of Wellington, New Zealand.
- Zakaria, Z. (2005). *Dictionary as tool in vocabulary acquisition for rural students* (Unpublished master's dissertation). Universiti Sains Malaysia, Malaysia.
- Zainal, Z. (1990). Contrastive analysis: The problems of L1 interference faced by UTM students when learning English. *ELA*, 3, 40-49.
- Zamel, V. (1982). Writing: The process of discovering meaning. *TESOL Quarterly*, 16, 195-195. <https://dx.doi.org/10.2307/3586792>
- Zamel, V. (1983). The composing processes of advanced ESL students: Six case studies. *TESOL Quarterly*, 17, 165-187. <https://dx.doi.org/10.2307/3586647>
- Zampini, M. L., & Green, K. P. (2001). The voicing contrast in English and Spanish: The relationship between perception and production. In J. Nicol (Ed.), *One mind, two languages: Bilingual language processing* (pp. 23-48). Cambridge: MA, Blackwell.
- Zaretsky, E. (2017). Cross-linguistic transfer: The role of L1 grammatical morphology in L2 reading comprehension among ELLs from low SES. In L. Maria & S. Jennifer (Eds.) *Proceedings of the 41st Annual Boston University Conference on Language Development* (pp. 794-805). Somerville, MA: Cascadilla Press.
- Zelege, A. A. (2014a). Training in the learning strategies of writing: Its effects on different ability groups of writing, user-groups of the strategies and gender with regard to improving their belief about autonomous learning of writing. *International Journal of Research*, 1, 166-197. Retrieved from <https://pen2print.org/index.php/ijr/article/view/55/39>
- Zelege, A. A. (2014b). The effects of training in the learning strategies of writing in improving students' use of the strategies: A study on Hawassa University Students. *International Journal of English Language & Translation Studies*, 2, 113-127. Retrieved from <https://zenodo.org/record/15958#.W7iJMXszbcs>
- Zhai, L. (2016). A study on Chinese EFL learners' vocabulary usage in writing. *Journal of Language Teaching and Research*, 7, 752-759. <http://dx.doi.org/10.17507/jltr.0704.16>
- Zhang, D., & Koda, K. (2013). Morphological awareness and reading comprehension in a foreign language: A study of young Chinese EFL learners. *System*, 41, 901-913. <https://dx.doi.org/10.1016/j.system.2013.09.009>
- Zhang, D., Koda, K., & Sun, X. (2014). Morphological awareness in biliteracy acquisition: A study of young Chinese EFL readers. *International Journal of Bilingualism*, 18, 570-585. <https://dx.doi.org/10.1177/1367006912450953>

- Zhang, J., Anderson, R. C., Li, H., Dong, Q., Wu, X., & Zhang, Y. (2010). Cross-language transfer of insight into the structure of compound words. *Reading and Writing*, 23, 311-336. <http://dx.doi.org/10.1007/s11145-009-9205-7>
- Zhang, L. J., & Anual, S. B. (2008). The role of vocabulary in reading comprehension the case of secondary school students learning English in Singapore. *RELC Journal*, 39, 51-76. <https://dx.doi.org/10.1177/0033688208091140>
- Zhao, J. (2011). *Spelling English words: Contributions of phonological, morphological and orthographic knowledge in speakers of English and Chinese* (Unpublished doctoral dissertation). Texas A&M University, United States.
- Zhao, J., Joshi, R. M., Dixon, L. Q., & Chen, S. (2017). Contribution of phonological, morphological and orthographic awareness to English word spelling: A comparison of EL1 and EFL models. *Contemporary Educational Psychology*, 49, 185-194. <https://dx.doi.org/10.1016/j.cedpsych.2017.01.007>
- Zhao, J., Quiroz, B., Dixon, L. Q., & Joshi, M. (2016). Comparing bilingual to monolingual learners on English spelling: A meta-analytic review. *Dyslexia*, 22, 193-213. <https://dx.doi.org/10.1002/dys.1530>
- Zhong, H. (2014). *The interface between receptive and productive vocabulary knowledge: Vocabulary knowledge as a multi-aspect construct* (Unpublished doctoral dissertation). University of Sydney, Australia.
- Zhou, Y., Tong, X., Mo, J., & McBride-Chang, C. (2014). Cross-language transfer in bilingual students. In C. B. Amanda (Ed.), *Assessing bilingual children in context: An Integrated approach* (pp. 27-52). Washington, DC: American Psychological Association.
- Ziegler, J. C., Bertrand, D., Tóth, D., Csépe, V., Reis, A., Faísca, L., ... & Blomert, L. (2010). Orthographic depth and its impact on universal predictors of reading: A cross language investigation. *Psychological Science*, 21, 551-559. <https://dx.doi.org/10.1177/0956797610363406>
- Ziegler, J. C., & Goswami, U. (2005). Reading acquisition, developmental dyslexia, and skilled reading across languages: A psycholinguistic grain size theory. *Psychological Bulletin*, 131, 3-29. <https://dx.doi.org/10.1037/0033-2909.131.1.3>
- Zuraidah, M. D. (2004). Assessing English language proficiency for academic purposes: Malaysian University English Test (MUET). In K. D. Maya (Ed.), *Teaching of English in second and foreign language setting: Focus on Malaysia* (pp.150-161). New York, NY: Peter Lang.
- Zuraidah, M. D. (2014). English in Malaysia: An inheritance from the past and the challenge for the future. In N. Murray & A. Scarino (Eds.), *Dynamic ecologies: A relational perspective on languages education in the Asia-Pacific region* (pp. 117-133). Multilingual Education, The Netherlands: Springer.
- Zuraidah, M. D., Knowles, G., & Yong, J. (2008). How words can be misleading: A study of syllable timing and “stress” in Malay. *The Linguistics Journal*, 3, 66-81. Retrieved from http://eprints.um.edu.my/2253/1/how_words_can_be_misleading.pdf

APPENDICES**Appendix A: English Measures****SESSION THREE**

NAME:

**DO NOT TURN THIS
PAGE UNTIL YOU ARE
ASKED TO**

ENGLISH

GRAMMAR

Time: 4 minutes

Instructions:

1. This paper consists of **TWO** sections: *Section A* and *Section B*.
2. Answer **BOTH** the sections.
3. Write your answers on the question paper.

For Examiner's Use Only		
Section	Total	Marks
A	10	
B	10	
Total	20	

Section A: Recognising Grammar Mistakes (10 Marks)

There are **four** underlined words or phrases in each sentence given below. Read the sentences below carefully and circle the underlined word or phrase that is **incorrect** for each of the sentence. You are advised to spend **2 minutes** in this section. An example is given below for reference.

Example:

Astronomers use photography and sighting telescopes to study the motions of all of the bright stars and many of the pale one.

A

B

C

D

Answer: D

**DO NOT START SECTION A-
'RECOGNISING GRAMMAR
MISTAKES' UNTIL YOU ARE
ASKED TO**

**END OF SECTION A-
'RECOGNISING GRAMMAR
MISTAKES'**

**DO NOT TURN TO SECTION B-
'SENTENCE COMPLETION'
UNTIL YOU ARE ASKED TO**

Section B: Sentence completion (10 Marks)

Fill in the blank in each question by **circling** the most suitable word or phrase that completes the sentence. You are advised to spend **2 minutes** in this section. An example is given below for reference.

Example:

Sophie is very keen _____ to the Art College in Kuala Lumpur.

B. about going

C. at going

B. on going

D. in going

Answer: B

**DO NOT START SECTION B-
'SENTENCE COMPLETION'
UNTIL YOU ARE ASKED TO**

**END OF SECTION B- 'SENTENCE
COMPLETION'**

**END OF 'GRAMMAR TEST'
SECTION**

**DO NOT TURN TO
'VOCABULARY TEST' SECTION
UNTIL YOU ARE ASKED TO**

NAME:

**DO NOT TURN THIS
PAGE UNTIL YOU ARE
ASKED TO**

ENGLISH

VOCABULARY

Time: 10 minutes

Instructions:

1. This paper consists of **FIVE** sections: *Section A*, *Section B*, *Section C*, *Section D* and *Section E*.
2. Answer all the **FIVE** sections.
3. Write your answers on the question paper.

For Examiner's Use Only		
Section	Total	Marks
A	15	
B	15	
C	15	
D	15	
E	15	
Total	75	

VOCABULARY TEST

This is a vocabulary test. You must choose the right word to go with each meaning. Write the number of that word next to its meaning. You are advised to spend **10 minutes** from **Section A** to **Section E**. Here is an example.

- | | | |
|-------------|-------|----------------------------|
| 7. Business | | |
| 8. clock | _____ | part of a house |
| 9. horse | _____ | animal with four legs |
| 10. pencil | _____ | something used for writing |
| 11. shoe | | |
| 12. wall | | |

You answer it in the following way:

- | | | |
|-------------|----------|----------------------------|
| 7. business | | |
| 8. clock | <u>6</u> | part of a house |
| 9. horse | <u>3</u> | animal with four legs |
| 10. pencil | <u>4</u> | something used for writing |
| 11. shoe | | |
| 12. wall | | |

Some words are in the test to make it more difficult. You do not have to find a meaning for these words. In the example above, these words are **business**, **clock**, **shoe**.

Try to do every part of the test.

**DO NOT START 'VOCABULARY'
SECTION UNTIL YOU ARE
ASKED TO**

Section A

1. birth	
2. dust	_____ game
3. operation	_____ winning
4. row	_____ being born
5. sport	
6. victory	
1. cap	
2. education	_____ teaching and learning
3. journey	_____ numbers to measure with
4. parent	_____ going to a far place
5. scale	
6. trick	
1. cream	
2. factory	_____ part of milk
3. nail	_____ a lot of money
4. pupil	_____ person who is studying
5. sacrifice	
6. wealth	
1. original	
2. private	_____ first
3. royal	_____ not public
4. slow	_____ all added together
5. sorry	
6. total	
1. brave	
2. electric	_____ commonly done
3. firm	_____ wanting food
4. hungry	_____ having no fear
5. local	
6. usual	

Section B

1. belt	
2. climate	_____ idea
3. executive	_____ inner surface of your hand
4. notion	_____ strip of leather worn around the waist
5. palm	
6. victim	
1. acid	
2. bishop	_____ cold feeling
3. chill	_____ farm animal
4. ox	_____ organization or framework
5. ridge	
6. structure	
1. boot	
2. device	_____ army officer
3. lieutenant	_____ a kind of stone
4. marble	_____ tube through which blood flows
5. phrase	
6. vein	
1. assist	
2. bother	_____ help
3. condemn	_____ cut neatly
4. erect	_____ spin around quickly
5. trim	
6. whirl	
1. annual	
2. concealed	_____ wild
3. definite	_____ clear and certain
4. mental	_____ happening once a year
5. previous	
6. savage	

Section C

1. apparatus	
2. compliment	_____ expression of admiration
3. ledge	_____ set of instruments or machinery
4. revenue	_____ money received by the government
5. scrap	
6. tile	
1. concrete	
2. era	_____ circular shape
3. fibre	_____ top of a mountain
4. loop	_____ a long period of time
5. plank	
6. summit	
1. blend	
2. devise	_____ mix together
3. hug	_____ plan or invent
4. lease	_____ hold tightly in your arms
5. plague	
6. reject	
1. abolish	
2. drip	_____ bring to an end by law
3. insert	_____ guess about the future
4. predict	_____ calm or comfort someone
5. soothe	
6. thrive	
1. bleed	
2. collapse	_____ come before
3. precede	_____ fall down suddenly
4. reject	_____ move with quick steps and jumps
5. skip	
6. tease	

Section D

1. benefit	
2. labour	_____ work
3. percent	_____ part of 100
4. principle	_____ general idea used to guide one's actions
5. source	
6. survey	
1. achieve	
2. conceive	_____ change
3. grant	_____ connect together
4. link	_____ finish successfully
5. modify	
6. offset	
1. convert	
2. design	_____ keep out
3. exclude	_____ stay alive
4. facilitate	_____ change from one thing into another
5. indicate	
6. survive	
1. anticipate	
2. compile	_____ control something skilfully
3. convince	_____ expect something will happen
4. denote	_____ produce books and newspapers
5. manipulate	
6. publish	
1. alternative	
2. ambiguous	_____ last or most important
3. empirical	_____ something different that can be chosen
4. ethnic	_____ concerning people from a certain nation
5. mutual	
6. ultimate	

Section E

1. casualty	
2. flurry	_____ someone killed or hurt
3. froth	_____ being away from other people
4. revelry	_____ noisy and happy celebration
5. rut	
6. seclusion	
1. arsenal	
2. barracks	_____ happiness
3. deacon	_____ difficult situation
4. felicity	_____ minister in a church
5. predicament	
6. spore	
1. acquiesce	
2. bask	_____ to accept without protest
3. crease	_____ sit or lie enjoying warmth
4. demolish	_____ make a fold on cloth or paper
5. overhaul	
6. rape	
1. blaspheme	
2. endorse	_____ slip or slide
3. nurture	_____ give care and food to
4. skid	_____ speak badly about God
5. squint	
6. straggle	
1. clinch	
2. jot	_____ move very fast
3. mutilate	_____ injure or damage
4. smoulder	_____ burn slowly without flame
5. topple	
6. whiz	

**END OF 'VOCABULARY TEST'
SECTION**

**DO NOT TURN TO ‘WORD
FORMATION’ SECTION UNTIL
YOU ARE ASKED TO**

NAME:

**DO NOT TURN THIS
PAGE UNTIL YOU ARE
ASKED TO**

ENGLISH

WORD FORMATION

Time: 10 minutes 35 seconds

Instructions:

1. This paper consists of **THREE** sections: *Section A*, *Section B* and *Section C*.
2. Answer all the **THREE** sections.
3. Write your answers on the question paper.

For Examiner's Use Only		
Section	Total	Marks
A	15	
B	15	
C	25	
Total	55	

Section A: Non-Word Sentences (15 Marks)

For each item, you will see a non-word and a sentence with a blank. Use the correct form to complete the non-word sentence. You are advised to spend **5 minutes** in this section. Two examples are given below for reference.

Example One:

This animal is called a wug. There are four of them. There are four wugs.

Answer: wugs

Example Two:

This man knows how to zib. Yesterday, he zibbed. Today, he is doing the same thing. Today he is zibbing.

Answer: zibbing

**DO NOT START SECTION A-
'NON WORD SENTENCES' UNTIL
YOU ARE ASKED TO**

1. Look at John. John is **stotting**. Yesterday he did the same thing. Yesterday, John _____.
2. This is a musical instrument named a **hux**. Now we have three of them. There are three _____.
3. Joe knows how to **fleamp**. He did the same thing yesterday. Yesterday he _____.
4. This mail carrier knows how to **krest**. Yesterday, she **krested** the letters. She is doing the same thing today. Today, she is _____.
5. Sometimes **zoobs** fall from the sky and we call that **zoobing**. Very rarely, **geeches** fall from the sky, we call that _____.
6. This is a type of bird called a **gutch**. Now, there are three of them. There are three _____.
7. Lily likes to **herk**. She did the same thing yesterday. Yesterday she _____ at the park.
8. This flower is called a **niz**. Now there is another one. There are two _____.
9. This man knows how to **mot**. Today, he is **motting**. He did the same thing yesterday. Yesterday, he _____.
10. This is a woman who knows how to **naz**. Today, she is **nazzing**. She does it every day. Every day she _____.
11. This is a boy who knows how to **bod**. Today, he is **bodding**. He did the same thing yesterday. Yesterday, he _____.
12. This is a type of dog called a **kazh**. Now there is another one. There are two _____.
13. Ever since he learned how to do it this man has been **ceeping** his iron bar into a knot. Yesterday he **cept** it into a knot. Today he will do the same thing. What will he do today? Today he will _____ it into a knot.
14. Be careful said the farmer. You're always **clomming** on your shoelace. You're about to **clom** on it now. You _____ yesterday too.

15. This is a person who knows how to mab along the street. Yesterday he mabbed along the street. Today he does the same thing. What does he do today? Today he _____ along the street.

**END OF SECTION A- 'NON WORD
SENTENCES'**

**DO NOT TURN TO SECTION B-
'WORD SENTENCE' UNTIL YOU
ARE ASKED TO**

Section B: Word Sentence (15 Marks)

For each item, you will see a word and a sentence with a blank. Change the word that is given to fill in the blank in the sentence. Use only one word for each blank (no phrases). You must change the word that is given. You are advised to spend **5 minutes** in this section. Two examples are given below for reference.

Example One:

John wanted to make a good impress on his first date.

Answer: impression

Example Two:

The farmer was concerned about the fertile of the fields prior to planting.

Answer: fertility

**DO NOT START SECTION B-
'WORD SENTENCE' UNTIL YOU
ARE ASKED TO**

1. The disease resulted in slower muscle contractions.
Answer: _____
2. The judge explained the need to take correct action.
Answer: _____
3. The new owners turned the failing business into a highly produce operation.
Answer: _____
4. It is possible to pursue a career as a logic.
Answer: _____
5. The neighbours were upset by the odour garbage can down the street.
Answer: _____
6. She wished her fiancé were more demonstrate.
Answer: _____
7. The doctor asked the patient to rate his weary on a scale from one to five.
Answer: _____
8. Frank broke down under the highly intense questioning.
Answer: _____
9. The family needed to call an electric.
Answer: _____
10. It is an odd that some cats have six toes.
Answer: _____
11. His emotions were observe only to those who knew him.
Answer: _____
12. The tense between the two countries was growing every day.
Answer: _____
13. John didn't anticipate the harshly critic response to his work.
Answer: _____
14. It is important to maintain natural diverse in our forests and parks.
Answer: _____
15. The geese follow the same migrate path every year.
Answer: _____

**END OF SECTION B- 'WORD
SENTENCE'**

**DO NOT TURN TO SECTION C-
'RELATEDNESS TEST' UNTIL
YOU ARE ASKED TO**

Section C: Relatedness Test (25 Marks)

Read the following word pairs and try to decide if the second word **comes from** the first word and has a similar meaning. Underline **YES** if you think the second word means the same thing or almost the same thing as the first word. Underline **NO** if you think the second word does not have a similar meaning to the first word. You are advised to spend **35 seconds** in this section. Two examples are given below for reference.

Example One:

Answer: happy happiness **YES** NO

Example Two:

Answer: cat category YES **NO**

**DO NOT START SECTION C-
'RELATEDNESS TEST' UNTIL
YOU ARE ASKED TO**

1. ear	earth	YES	NO
2. possible	possibility	YES	NO
3. bus	business	YES	NO
4. associate	association	YES	NO
5. involve	involvement	YES	NO
6. press	president	YES	NO
7. crumb	crumble	YES	NO
8. agree	agreement	YES	NO
9. sign	signal	YES	NO
10. courage	courageous	YES	NO
11. tile	reptile	YES	NO
12. bat	battle	YES	NO
13. special	specialist	YES	NO
14. curious	curiosity	YES	NO
15. fat	fatal	YES	NO
16. space	spacious	YES	NO
17. comb	combination	YES	NO
18. numb	number	YES	NO
19. ban	banana	YES	NO
20. develop	development	YES	NO
21. cat	cattle	YES	NO
22. fame	famous	YES	NO
23. corn	corner	YES	NO
24. moth	mother	YES	NO
25. sincere	sincerity	YES	NO

**END OF SECTION C-
'RELATEDNESS TEST'**

END OF SESSION THREE

SESSION FOUR

**DO NOT TURN TO 'SPELLING'
SECTION UNTIL YOU ARE
ASKED TO**

NAME:

**DO NOT TURN THIS
PAGE UNTIL YOU ARE
ASKED TO**

ENGLISH

SPELLING

Time: 4 minutes and 50 seconds

Instructions:

1. This paper consists of **THREE** sections: *Section A*, *Section B* and *Section C*.
2. Answer all the **THREE** sections.
3. Write your answers on the question paper.

For Examiner's Use Only		
Section	Total	Marks
A	20	
B	18	
C	40	
Total	78	

Section A: Identifying Spelling Mistakes (20 Marks)

In this section you are given a pair of words, of which only one is correctly spelt. Identify and underline the correctly spelt word. You are advised to spend **2 minutes** in this section. An example is given below for reference.

Example:

munk

monk

Reason:

The word is 'monk'; 'munk' is an incorrect spelling. Therefore, 'monk' should be underlined as it is the correct answer.

**DO NOT START SECTION A-
'IDENTIFYING SPELLING
MISTAKES' UNTIL YOU ARE
ASKED TO**

1. thumb	thum
2. wagon	wagun
3. blume	bloom
4. tuition	tiution
5. tertle	turtle
6. streem	stream
7. rescue	resque
8. feud	fude
9. relevent	relevant
10. believe	beleive
11. separate	seperate
12. peice	piece
13. neccesary	necessary
14. amenities	ameneties
15. accesible	accessible
16. disguise	disguyse
17. sircus	circus
18. obecity	obesity
19. castle	caslte
20. skate	skait

**END OF SECTION A-
'IDENTIFYING SPELLING
MISTAKES'**

**DO NOT TURN TO SECTION B-
'CORRECT SPELLING IN
ENGLISH' UNTIL YOU ARE
ASKED TO**

Section B: Correct Spelling in English (18 Marks)

In this section you are given a pair of words, of which only one sounds like a **real** English word. Identify and underline the word that looks/sounds more like an English word, even if you have not seen or heard these words before. You are advised to spend **2 minutes** in this section. An example is given below for reference.

Example:

baff

bbaf

Reason:

The answer is '*baff*' because it sounds like '*affle*' whereas '*bbaf*' does not sound like a real word because in the English spelling system 'bb' sound does not occur at the beginning of a word. Therefore, '*baff*' is underlined as correct.

**DO NOT START SECTION B-
'CORRECT SPELLING IN
ENGLISH' UNTIL YOU ARE
ASKED TO**

1. ffeb	beff
2. dalled	ddaled
3. yikk	yinn
4. vayying	vadding
5. dacker	ckader
6. vaad	vadd
7. munt	muun
8. moyl	moil
9. bei	bey
10. daw	dau
11. gri	gry
12. chym	chim
13. milg	miln
14. vism	visn
15. phim	ffim
16. skap	sckap
17. vosst	vost
18. nuss	nnus

**END OF SECTION B- 'CORRECT
SPELLING IN ENGLISH'**

**DO NOT TURN TO SECTION C-
'WORDS THAT ARE NOT IN
ENGLISH' UNTIL YOU ARE
ASKED TO**

Section C: Words that are not in English (40 Marks)

In this section you are given **three** words, of which only one is not an English word. Identify and underline the word that is not an English word. You are advised to spend **50 seconds** in this section. An example is given below for reference.

Example:

see

sea

cee

**DO NOT START SECTION C-
'WORDS THAT ARE NOT IN
ENGLISH' UNTIL YOU ARE
ASKED TO**

1. here	hear	heer
2. knew	new	kniw
3. there	theer	their
4. blew	blue	bloo
5. sumn	some	sum
6. weigh	wiagh	way
7. zent	cent	sent
8. sell	cell	qell
9. brake	braek	break
10. wood	would	wuald
11. maat	meet	meat
12. plain	plane	plein
13. roal	role	roll
14. dear	diar	deer
15. fare	fair	fere
16. loan	loen	lone
17. rayn	rain	rein
18. steal	steel	staal
19. peace	peece	piece
20. sight	site	syte
21. priy	pray	prey
22. herd	hird	heard
23. weit	wait	weight
24. root	route	ruote
25. flour	flaor	flower

26. sole	soul	soal
27. night	knight	neght
28. sein	seen	scene
29. idle	idel	idol
30. so	sow	soe
31. doe	dough	doeh
32. base	baes	bass
33. bere	bear	bare
34. rows	rose	rews
35. peek	peak	paak
36. links	lxyn	lynx
37. mede	maid	made
38. fir	fer	fur
39. dae	do	due
40. muscle	muccl	mussel

**END OF SECTION C- 'WORDS
THAT ARE NOT IN ENGLISH'**

**DO NOT TURN TO ‘WORD
SOUNDS’ SECTION UNTIL YOU
ARE ASKED TO**

NAME:

**DO NOT TURN THIS
PAGE UNTIL YOU ARE
ASKED TO**

ENGLISH

WORD SOUNDS

Time: 2 minutes 25 seconds

Instructions:

1. This paper consists of **TWO** sections: *Section A* and *Section B*.
2. Answer **BOTH** the sections.
3. Write your answers on the question paper.

For Examiner's Use Only		
Section	Total	Marks
A	15	
B	20	
Total	35	

Section A: Syllables (15 Marks)

Identify and write the number of syllabi per word below. You are advised to spend **25 seconds** in this section. An example is given below for reference.

Example:

café ca/fé 2

**DO NOT START SECTION A-
'SYLLABLES' UNTIL YOU ARE
ASKED TO**

Word	Number of Syllables
1. feel	_____
2. competition	_____
3. retire	_____
4. disadvantages	_____
5. choice	_____
6. infrastructure	_____
7. map	_____
8. potential	_____
9. showtime	_____
10. attention	_____
11. sentence	_____
12. examination	_____
13. important	_____
14. beneficial	_____
15. qualification	_____

**END OF SECTION A-
'SYLLABLES'**

**DO NOT TURN TO SECTION B-
'SOUNDS LIKE AN ENGLISH
WORD' UNTIL YOU ARE ASKED
TO**

Section B: Sounds like an English Word (20 Marks)

Identify and underline the word that sounds more like an English word, even if you have not seen or heard these words before. You are advised to spend **2 minutes** in this section. An example is given below for reference.

Example:

caim pame

Reason:

The answer '*caim*' because it sounds like the word '*came*' whereas the word '*pame*' has no word which sounds '*pame*' in English .

**DO NOT START SECTION B-
'SOUNDS LIKE AN ENGLISH
WORD' UNTIL YOU ARE ASKED
TO**

1. lait	lote
2. trane	traif
3. broave	braive
4. fite	fipe
5. afe	ait
6. cliss	klass
7. derty	dorty
8. joak	jope
9. neer	nerr
10. seaf	seet
11. threp	thru
12. feem	fead
13. fense	felce
14. thair	theer
15. fither	fether
16. naim	nade
17. doftor	docter
18. leeve	meave
19. reech	reash
20. trastor	tracter

**END OF SECTION B- 'SOUNDS
LIKE AN ENGLISH WORD'**

**END OF 'WORD SOUNDS TEST'
SECTION**

**DO NOT TURN TO 'ESSAY'
SECTION UNTIL YOU ARE
ASKED TO**

NAME:	MARKS
-------	-------

**DO NOT TURN THIS
PAGE UNTIL YOU ARE
ASKED TO**

ENGLISH

ESSAY

Time: 30 minutes

Instructions:

1. This paper consists of **THREE** questions.
 2. Choose only **ONE** question.
 3. Write your essay in the space provided.
-

ESSAY

Choose **ONE** of the following topics below. Your essay should have coherence. You are advised to spend **30 minutes** in this section.

1. How can we prevent global warming from destroying our planet?
2. Why do teenagers depend on Facebook to make new friends?
3. What makes life too hectic to be enjoyed nowadays?

Topic number: _____

**DO NOT START 'ESSAY'
SECTION UNTIL YOU ARE
ASKED TO**

END OF 'ESSAY' SECTION

END OF SESSION FOUR

Appendix B: Malay Measures**SESI PERTAMA**

NAMA:

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIBERITAHU

BAHASA MELAYU

TATABAHASA

Masa: 4 minit

Arahan:

1. Kertas soalan ini mengandungi **DUA** bahagian: *Bahagian A* dan *Bahagian B*.
2. Jawab **kedua-dua** bahagian.
3. Jawapan anda hendaklah ditulis di dalam kertas soalan tersebut.

Kegunaan Pemeriksa		
Bahagian	Jumlah	Markah
A	10	
B	10	
Jumlah	20	

Bahagian A: Mengenal Pasti Kesalahan Tatabahasa (10 Markah)

Dalam setiap ayat di bawah terdapat satu *kesalahan penggunaan kata* atau *tatabahasa*. Baca ayat di bawah dengan teliti dan bulatkan perkataan yang bergaris atau frasa yang tidak betul bagi setiap ayat. Anda dinasihati supaya mengambil masa **2 minit** untuk menjawab bahagian ini. Contoh di bawah adalah untuk rujukan anda.

Contoh:

Sejenis spesies baru cendawan yang terbesar di dunia telah ditemui di Mexico baru-baru ini.

A

B

C

D

Jawapan: C

BAHAGIAN A
JANGAN BUKA SEHINGGA DI
BERITAHU- ‘MENGENAL PASTI
KESALAHAN TATABAHASA’

1. Kepulangan petinju negara yang memperolehi pingat emas dalam Sukan Komanwel telah disambut dengan meriah.
A B C
D
2. Wabak selesema burung akan menjadi merbahaya kepada penduduk dunia sekiranya tidak dicegah dari awal.
A B C
D
3. Hakim menjatuhkan hukuman penjara selama lima tahun terhadap banduan itu di atas kesalahannya memukul Ramli.
A B C
D
4. Aktiviti pengajaran dan pembelajaran dalam matapelajaran Bahasa Melayu juga terdiri daripada bacaan luas, permain Bahasa, dan kerja penyelidikan.
A B C D
5. Rakyat Malaysia menunjuk sikap yang proaktif dalam usaha membantu pihak kerajaan menangani kes denggi yang melanda.
A B
C D
6. Walaupun kebanyakan penduduk di kawasan setinggan itu berpindah, namun boleh dikata rata-rata mereka tidak berpuas hati terhadap sikap pemaju.
A B
C D
7. Kehebatan pasukan bola sepak China yang selalu diuar-uarkan oleh media telah dibukti apabila mereka berjaya menewaskan pasukan bola sepak Malaysia.
A B
C D
8. Maklumat yang diberi oleh saksi kepada panel-panel hakim adalah bercanggah.
A B C D
9. Pihak polis telah menemui mayat yang tidak dikenali itu dalam keadaan mengerikan di pangkalan sungai.
A B C
D
10. Kapten pasukan 'Harimau Malaysia' menerima pingat daripada Sultan Muhammad Ke-V setelah berjaya mempertahankan Kejuaraan Liga Super.
A B
C D

**TAMAT BAHAGIAN A-
'MENGENAL PASTI KESALAHAN
TATABAHASA'**

BAHAGIAN B

**JANGAN MULA SEHINGGA DI
BERITAHU- ‘MELENGKAPKAN
AYAT’**

Bahagian B: Melengkapkan Ayat (10 Markah)

Anda perlu memilih *penggunaan kata* atau *tatabahasa* yang sesuai. Baca ayat di bawah dengan teliti dan bulatkan jawapan anda. Anda dinasihati supaya mengambil masa **2 minit** untuk menjawab bahagian ini. Contoh di bawah adalah untuk rujukan anda.

Contoh:

Pelaksanaan Kawasan Perdagangan Bebas ASEAN (AFTA) menyebabkan para peniaga bersaing _____ satu sama lain.

B. dengan

D. dari

B. antara

D. daripada

Jawapan: B. antara

BAHAGIAN B

**JANGAN MULA SEHINGGA DI
BERITAHU- ‘MELENGKAPKAN
AYAT’**

1. Pengusaha gerai sate itu telah _____ anak lelakinya dengan anak pengusaha Restoran Siti.
A. isteri
B. memperisteri
C. isterikan
D. memperisterikan
2. Yang Dipertuan Agong bersemayam di atas takhta demi untuk _____ upacara penganugerahan pingat kebesaran.
A. sempurna
B. menyempurnakan
C. sempurnakan
D. menyempurnai
3. Pihak polis sudah mengenal pasti identiti semua suspek yang masih bebas itu dengan mengedarkan gambar lakaran wajah suspek _____ semua balai polis.
A. ke
B. pada
C. kepada
D. daripada
4. Rakyat Malaysia perlu bahu-membahu untuk _____ aspirasi Negara menjadi negara maju menjelang tahun 2020.
A. capai
B. tercapai
C. mencapai
D. mencapaikan
5. Datuk Ramli berjaya menempa nama sebagai korporat yang disegani _____ usahanya sendiri.
A. di atas
B. atas
C. oleh
D. dari
6. Kegiatan mengimport rokok dari negara jiran ke negara ini bukan sahaja sukar dibendung _____ kerajaan mengalami kerugian cukai import.
A. namun
B. malah
C. tetapi
D. oleh
7. Tahap pembacaan generasi muda semakin meningkat dan mereka sudah pandai memilih bahan bacaan yang _____ ilmiah.
A. bentuk
B. membentuk
C. berbentuk
D. pembentukan
8. Walaupun dunia telah mengalami arus globalisasi, namun ada sesetengah golongan yang memandang rendah terhadap _____ bidang teknologi maklumat.
A. mementingkan
B. kepentingannya
C. mementingkannya
D. kepentingan

9. Jika ada masa lapang, ayah suka bercerita _____ pengalamannya semasa zaman pendudukan Jepun di Tanah Melayu.
- A. tentang
B. oleh
C. dengan
D. dari
10. Puan Ayu tetap menyayangi Razali _____ anak angkatnya itu pernah menyakiti hatinya.
- A. walaupun
B. meskipun
C. mahupun
D. sungguhpun

**TAMAT BAHAGIAN B-
'MELENGKAPKAN AYAT'**

TAMAT BAHAGIAN- 'UJIAN TATABAHASA'

**JANGAN BUKA SEHINGGA DI
BERITAHU-‘BAHAGIAN UJIAN
KOSA KATA’**

NAMA:

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIBERITAHU

BAHASA MELAYU

KOSA KATA

Masa: 10 minit

Arahan:

1. Kertas soalan ini mengandungi **LIMA** bahagian: *Bahagian A*, *Bahagian B*, *Bahagian C*, *Bahagian D* dan *Bahagian E*.
2. Jawab **kelima-lima** bahagian.
3. Jawapan anda hendaklah ditulis di dalam kertas soalan tersebut.

Kegunaan Pemeriksa		
Bahagian	Jumlah	Markah
A	15	
B	15	
C	15	
D	15	
E	15	
Jumlah	75	

UJIAN KOSA KATA

Bahagian ini menguji pemahaman kosa kata. Anda perlu mengenal pasti jawapan yang betul bagi setiap maksud yang diberikan. Tulis jawapan anda bersebelahan dengan maksudnya. Anda dinasihati supaya mengambil masa **10 minit** untuk menjawab bahagian **A** hingga **E**. Contoh di bawah adalah untuk rujukan anda.

- 7. sahsiah
- 8. obligasi _____ ungkapan
- 9. slogan _____ bercakap sendiri
- 10. amanah _____ semangat
- 11. kejujuran
- 12. monolog

Jawapan anda perlu mengikuti turutan yang berikut:

- 7. sahsiah
- 8. obligasi 3 ungkapan
- 9. slogan 6 bercakap sendiri
- 10. amanah 2 semangat
- 11. kejujuran
- 12. monolog

Perkataan lain dalam ujian ini adalah untuk menentukan sama ada anda dapat mengenal pasti maksud yang tepat bagi kosa kata tersebut. Anda tidak perlu mencari maksud bagi perkataan tersebut. Dalam contoh di atas, perkataan **sahsiah**, **amanah** dan **kejujuran**, adalah pilihan perkataan selain daripada jawapan, yang perlu diabaikan.

Anda dikehendaki menjawab semua bahagian di penilaian ini.

**JANGAN MULA SEHINGGA DI
BERITAHU- 'BAHAGIAN UJIAN
KOSA KATA'**

Bahagian A

1. berundur	
2. kental	_____ menjadikan kenyataan
3. kegemilangan	_____ kesemarakkan
4. lumrah	_____ kuat
5. teratak	
6. merealisasikan	
1. propaganda	
2. ekstermis	_____ ideologi
3. gembeng	_____ bersikap melampau batasan
4. mudah	_____ memadu (tenaga)
5. sibuk	
6. mendidik	
1. agresif	
2. punca	_____ akar umbi
3. terjerumus	_____ menghancurkan
4. meranapkan	_____ utama
5. enggan	
6. perdana	
1. pencapaian	
2. emosi	_____ bersifat sementara
3. kemewahan	_____ mengekalkan
4. interim	_____ tidak boros
5. melestarikan	
6. hemat	
1. pancarobah	
2. inovatif	_____ merisaukan
3. aspek	_____ idea baharu
4. remaja	_____ keadaan yang kacau
5. merunsingkan	
6. nasihat	

Bahagian B

1. bermaharajarela	
2. konflik	_____ berleluasa
3. termenung	_____ menopang dagu
4. pewaris	_____ sesuatu yang bernilai
5. fikiran	
6. aset	
1. segi	
2. khlayak	_____ semangat tinggi
3. motivasi	_____ mencadangkan
4. menyarankan	_____ zaman
5. era	
6. kurang	
1. kebebasan	
2. megah	_____ perfestif
3. moral	_____ kesungguhan
4. keperibadian	_____ perilaku
5. komitmen	
6. tanggapan	
1. imej	
2. malapetaka	_____ bencana
3. ekonomi	_____ harta benda
4. keserakahan	_____ ketamakan
5. khazanah	
6. hilang	
1. badut	
2. terjebak	_____ terlibat
3. automatik	_____ mencari
4. mencungkil	_____ tempat menyimpan benda khazanah
5. semangat	
6. arkib	

Bahagian C

1. fakta 2. membela _____ memelihara 3. perihal _____ menjurus 4. mengarah _____ menambak 5. nafas 6. melepai
1. perwakilan 2. hias _____ delegasi 3. syabas _____ kerjasama 4. muafakat _____ tahniah 5. menaruh 6. teliti
1. beristirahat 2. insentif _____ ganjaran 3. globalisasi _____ dunia tanpa sempadan 4. menetap _____ terkini 5. kontemporari 6. hakim
1. kerjaya 2. pendirian _____ memperhatikan 3. faedah _____ panjang sungguh 4. pemantau _____ penyamaan 5. meleret 6. penyeragaman
1. mengeluh 2. kelihatan _____ mentafsir 3. dedikasi _____ pengabdian diri 4. ringkas _____ meratap 5. ulasan 6. sempurna

Bahagian D

1. mengorak 2. pemantauan _____ cepat 3. komitmen _____ tidak yakin 4. waswas _____ pengawasan 5. jurang 6. drastik
1. menjegal 2. dimonopoli _____ menggagalkan 3. resmi _____ dikuasai 4. sengaja _____ sifat semula jadi 5. berbicara 6. keutamaan
1. senario 2. maslahat _____ hak kebebasan 3. kutsi _____ penampilan 4. menerajui _____ mengetuai 5. imej 6. emansipasi
1. panji 2. kemaslahatan _____ pendidikan 3. pengemblengan _____ kebaikan 4. ceramah _____ bendera 5. peraturan 6. manipulasi
1. astetikanya 2. pancaindera _____ berlanjutan 3. bungkam _____ gambaran 4. taswir _____ tidak bersuara 5. berderai 6. sepakati

Bahagian E

1. musakat 2. toleransi _____ mengejek 3. belunggu _____ sengsara 4. cemuhan _____ keyakinan yang keterlaluan 5. fenomena 6. taasub
1. privasi 2. linglung _____ pemilihan kata 3. diksi _____ tempoh 4. patriotism _____ hilang ingatan 5. tenggang 6. insentif
1. halilintar 2. kebatilan _____ berpaling hati 3. lintabung _____ perihal tidak benar 4. menabrak _____ melanggar 5. sahaya 6. belot
1. akreditasi 2. dasawarsa _____ satu dekad 3. kepincangan _____ kekurangan 4. wacana _____ pernyataan berdukacita 5. belasungkawa 6. direkrut
1. rencong 2. terlongo _____ pengembara 3. peran _____ kaki langit 4. petualang _____ tercengang 5. bang 6. ufuk

TAMAT BAHAGIAN- 'UJIAN KOSA KATA'

**JANGAN BUKA SEHINGGA DI
BERITAHU- 'BAHAGIAN
IMBUHAN'**

NAMA:

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIBERITAHU

BAHASA MELAYU

IMBUHAN

Masa: 10 minit 25 saat

Arahan:

1. Kertas soalan ini mengandungi **TIGA** bahagian: *Bahagian A*, *Bahagian B* dan *Bahagian C*.
2. Jawab **ketiga-tiga** bahagian.
3. Jawapan anda hendaklah ditulis di dalam kertas soalan tersebut.

Kegunaan Pemeriksa		
Bahagian	Jumlah	Markah
A	15	
B	15	
C	25	
Jumlah	55	

Bahagian A: Penggunaan Imbuan Bagi Perkataan Yang Bukan daripada Bahasa Melayu (15 Markah)

Setiap ayat di bawah mengandungi **perkataan yang bukan daripada** Bahasa Melayu. Anda perlu menggunakan imbuan yang sesuai untuk melengkapkan ayat tersebut. Anda dinasihati supaya mengambil masa **5 minit** untuk menjawab bahagian ini. Contoh-contoh di bawah adalah untuk rujukan anda.

Contoh Pertama:

Di belakang rumah saya ada beberapa **runda**. Ada runda kelapa, runda rambutan dan runda durian. Tetapi di belakang rumah Hasnah kawasannya lapang dan tidak **berunda**.

Jawapan: berunda

Contoh Kedua:

Halim **meninjuk** kepada lukisan itu. Dia **meninjukkan** bahawa lukisan itu adalah palsu.

Jawapan: meninjukkan

BAHAGIAN A

**JANGAN MULA SEHINGGA DI
BERITAHU- 'PENGUNAAN
IMBUHAN BAGI PERKATAAN
YANG BUKAN DARIPADA
BAHASA MELAYU'**

1. Azlin **golak** makanan untuk keluarganya setiap hari. Dia suka _____ makanan seperti kari rendang dan ayam goreng.
2. Encik Halim mempunyai kaki yang besar. Dia memakai **bona** yang besar. Encik Halim _____ merah.
3. Ini ialah Encik Hanif. Ia **menghata** buku-bukunya. Dia kemudian menyuruh isterinya _____ kembali buku-buku tersebut.
4. Nizar **mengkalogkan** sebuah basikal kepada anaknya. Nizar _____ bahawa dia akan membeli basikal itu pada akhir bulan ini.
5. Sharma suka **utas** cincin yang besar. Dia sedang _____ cincin pada jarinya.
6. Salmah memberi anaknya banyak duit. Dia menyuruh anaknya _____ wang itu di sebuah bank. Kini anaknya sudah **menjusta** sebanyak lima ratus ringgit.
7. Siti **menyeduskan** buku-buku yang perlu di ambil ke sekolah. Sekarang Siti sudah _____ untuk hari pertamanya di sekolah.
8. Abu melukis **gurusan** di dalam buku latihannya. Dia kemudian _____ seluruh muka surat.
9. Gaya **citup** sihat mempengaruhi kejayaan seseorang dalam pelbagai aspek _____.
10. Pada waktu lapang, Zaman suka **memsaru** binatang liar. Dia merupakan seorang _____ yang handal.
11. Jamal adalah seorang pelajar yang _____. **Kepaikannya** dipuji oleh guru kelasnya.
12. Semua pihak perlu bekerjasama untuk _____ persisiran pantai di negara kita. **Ketarsahan** pantai dapat menarik perhatian pelancong asing untuk melawat negara kita.
13. Mangsa _____ rumah dihulurkan bantuan oleh kerajaan negeri. Sebanyak lima buah rumah **terfatar** di tamah perumahan semalam.
14. Kita perlu _____ sikap hormat menghormati antara satu sama lain. Sikap ini masih **dihetatkan** oleh masyarakat kini.

15. _____ teknologi maklumat pada hari ini banyak memberi manfaat kepada pelajar. Pgunaannya dapat **memperzamdangkan** lagi potensi pelajar secara menyeluruh.

**TAMAT BAHAGIAN A-
'PENGUNAAN IMBUHAN BAGI
PERKATAAN YANG BUKAN
DARIPADA BAHASA MELAYU'**

BAHAGIAN B

**JANGAN BUKA SEHINGGA DI
BERITAHU- 'PENGUNAAN
IMBUHAN BAGI PERKATAAN
BAHASA MELAYU'**

Bahagian B: Penggunaan Imbuhan Bagi Perkataan Bahasa Melayu (15 Markah)

Anda perlu menggunakan *imbuhan* yang betul untuk melengkapkan ayat tersebut. Anda dinasihati supaya mengambil masa **5 minit** untuk menjawab bahagian ini. Contoh-contoh di bawah adalah untuk rujukan anda.

Contoh Pertama:

Kelulusan dalam mata pelajaran Bahasa Melayu menjadi satu prasyarat untuk masuk Tingkatan Enam.

Jawapan: memasuki

Contoh Kedua:

Remaja perlu lengkap diri dengan pelbagai kemahiran untuk mendepani pelbagai cabaran pada masa hadapan.

Jawapan: melengkapkan

BAHAGIAN B

**JANGAN MULA SEHINGGA DI
BERITAHU- 'PENGUNAAN
IMBUHAN BAGI PERKATAAN
BAHASA MELAYU'**

1. Langkah-langkah meningkatkan tahap kesihatan masyarakat tidak pernah **abai** oleh kerajaan.
Jawapan: _____
2. Koperasi merupakan badan yang efektif untuk **bantu** meningkatkan hidup masyarakat.
Jawapan: _____
3. Senarai barang keperluan yang dikuatkuasakan kawalan harganya telah **keluar** oleh Kementerian Perdagangan Dalam Negeri dan Hal Ehwal Pengguna.
Jawapan: _____
4. Cita-citanya untuk **lanjut** pelajaran ke menara gading belum tercapai lagi disebabkan oleh kesempitan hidup.
Jawapan: _____
5. Kemenangan pasukan bola sepak Jerman dalam perlawanan Piala Dunia sudah **jangka** oleh semua.
Jawapan: _____
6. Ibu bapa **ingat** agar menjaga keselamatan anak-anak terutama semasa membeli-belah.
Jawapan: _____
7. Mencapai **menang** dalam pertandingan peringkat kebangsaan dengan mudah, pasukan bahas yang berasal dari Seremban itu.
Jawapan: _____
8. Hidangan hari itu iaitu mi kari dan ayam yang digoreng kekuning-kuningan berserta sos istimewa sebagai pencicah **bangkit** selernya.
Jawapan: _____
9. Penggunaan Internet memang mempercepat urusan namun tidak sesuai untuk semua keadaan kerana terdapat juga **buruk**.
Jawapan: _____
10. Majlis itu **kritik** kerana pelaksanaannya tidak mengikut atur cara dan tempoh masa yang ditetapkan.
Jawapan: _____
11. Para pekerja kontrak itu mencantas dahan-dahan pokok hiasan di sepanjang jalan raya utama itu agar tidak **ganggu** kelancaran lalu lintas.
Jawapan: _____
12. Rakyat negeri itu begitu teruja untuk menyambut keberangkatan tiba baginda sultan yang baru **tabal** ke daerah mereka.

Jawapan: _____

13. Pihak kerajaan tempatan disarankan agar **banyak** aktiviti yang menguntungkan para remaja.

Jawapan: _____

14. Bahasa Melayu dapat **jadi** teras pertumbuhan kebudayaan nasional di Malaysia yang berbilang kaum.

Jawapan: _____

15. Tabiat merokok dikalangan wanita hamil akan **bahaya** kesihatan serta keselamatan bayi yang dikandung.

Jawapan: _____

**TAMAT BAHAGIAN B-
'PENGUNAAN IMBUHAN BAGI
PERKATAAN BAHASA MELAYU'**

BAHAGIAN C

**JANGAN BUKA SEHINGGA DI
BERITAHU- 'PENGUNAAN
IMBUHAN DALAM PERKATAAN'**

Bahagian C: Penggunaan Imbuhan Dalam Perkataan (25 Markah)

Anda perlu memastikan **kata dasar** bagi perkataan yang diberikan dengan menggariskan **YA** jika perkataan kedua berasal daripada perkataan pertama *atau* **TIDAK** jika perkataan kedua tidak berasal daripada perkataan pertama. Anda dinasihati supaya mengambil masa **35 saat** untuk menjawab bahagian ini. Contoh-contoh di bawah adalah untuk rujukan anda.

Contoh Pertama:

kebun *pekebun* **YA** *TIDAK*

Contoh Kedua:

nasi *penasihat* *YA* **TIDAK**

BAHAGIAN C

**JANGAN MULA SEHINGGA DI
BERITAHU- 'PENGUNAAN
IMBUHAN DALAM PERKATAAN'**

1. lambung	menyambung	YA	TIDAK
2. tinggal	meninggalkan	YA	TIDAK
3. main	permain	YA	TIDAK
4. arah	pengarah	YA	TIDAK
5. cat	catat	YA	TIDAK
6. jalan	menjalankan	YA	TIDAK
7. ejen	agenda	YA	TIDAK
8. nilai	penilaian	YA	TIDAK
9. panah	memanah	YA	TIDAK
10. moto	motosikal	YA	TIDAK
11. pelan	pelancaran	YA	TIDAK
12. susun	menyusun	YA	TIDAK
13. masa	masalah	YA	TIDAK
14. kerah	mengerah	YA	TIDAK
15. logik	logistik	YA	TIDAK
16. labur	pelaburan	YA	TIDAK
17. hutan	hutang	YA	TIDAK
18. aneh	keanehan	YA	TIDAK
19. perintah	pemerintah	YA	TIDAK
20. komunis	komunikasi	YA	TIDAK
21. pelancong	melancong	YA	TIDAK
22. sihat	kesihatan	YA	TIDAK
23. hari	harimau	YA	TIDAK
24. syarat	syarikat	YA	TIDAK
25. aman	zaman	YA	TIDAK

**TAMAT BAHAGIAN C-
'PENGUNAAN IMBUHAN
DALAM PERKATAAN'**

TAMAT SESI PERTAMA

SESI KEDUA

**JANGAN BUKA SEHINGGA DI
BERITAHU- 'BAHAGIAN EJAAN'**

NAMA:

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIBERITAHU

BAHASA MELAYU

EJAAN

Masa: 4 minit 50 saat

Arahan:

1. Kertas soalan ini mengandungi **TIGA** bahagian: *Bahagian A*, *Bahagian B* dan *Bahagian C*.
2. Jawab **ketiga-tiga** bahagian.
3. Jawapan anda hendaklah ditulis di dalam kertas soalan tersebut.

Kegunaan Pemeriksa		
Bahagian	Jumlah	Markah
A	20	
B	18	
C	40	
Jumlah	78	

Bahagian A: Mengenal pasti Kesalahan Ejaan (20 Markah)

Anda perlu mengenal pasti ejaan yang *betul* dan mengariskannya. Anda dinasihati supaya mengambil masa *2 minit* untuk menjawab bahagian ini. Contoh di bawah adalah untuk rujukan anda.

Contoh:

bumiputra *bumiputera*

Perkataan '*bumiputera*' adalah ejaan yang betul kerana ianya diejaan sebagai */bumi/pu/te/ra/* bukan */bumi/pu/tra/*.

BAHAGIAN A

**JANGAN MULA SEHINGGA DI
BERITAHU- 'MENGENAL PASTI
KESALAHAN EJAAN'**

1. ampangan	empangan
2. akitek	arkitek
3. baucar	baucer
4. geharu	gaharu
5. isytihar	istihar
6. cap	cop
7. deligasi	delegasi
8. efisien	efisien
9. gembeleng	gembeleng
10. logik	lojik
11. mengeneipikan	mengetepikan
12. nasionalisma	nasionalisme
13. prihatin	perihatin
14. perletakan	peletakan
15. kelender	kalendar
16. keriting	kerinting
17. lencungan	lencongan
18. skala	sekala
19. subsidi	subsidi
20. spesies	spesis

TAMAT BAHAGIAN A-
‘MENGENAL PASTI KESALAHAN
EJAAN’

BAHAGIAN B

**JANGAN BUKA SEHINGGA DI
BERITAHU- 'PERKATAAN YANG
BERBUNYI SEPERTI
PERKATAAN BAHASA MELAYU'**

Bahagian B: Perkataan yang berbunyi seperti perkataan Bahasa Melayu (18 Markah)

Anda perlu mengenal pasti dan menggariskan perkataan yang *berbunyi seperti perkataan Bahasa Melayu* walaupun anda tidak pernah melihat atau mendengar perkataan tersebut sebelum ini. Anda dinasihati supaya mengambil masa **2 minit** untuk menjawab bahagian ini. Contoh di bawah adalah untuk rujukan anda.

Contoh:

merba

berba

Jawapan '**berba**' adalah betul disebabkan dalam ejaan Bahasa Melayu, kita tidak menggunakan imbuhan *mer-* untuk perkataan bahaya, jadi ejaan yang betul adalah **berbahaya**.

BAHAGIAN B

**JANGAN MULA SEHINGGA DI
BERITAHU- 'PERKATAAN YANG
BERBUNYI SEPERTI
PERKATAAN BAHASA MELAYU'**

1. perfi	pefil
2. intre	inter
3. ensp	aspi
4. kein	inke
5. durha	derha
6. trage	traje
7. reze	ezer
8. ikh	khi
9. dasyh	dahsy
10. rong	rung
11. gene	jene
12. wed	wad
13. neh	nih
14. haf	hap
15. efik	efek
16. car	cer
17. dele	deli
18. geha	gaha

TAMAT BAHAGIAN B-
‘PERKATAAN YANG BERBUNYI
SEPERTI PERKATAAN BAHASA
MELAYU’

BAHAGIAN C

**JANGAN BUKA SEHINGGA DI
BERITAHU- 'PERKATAAN YANG
TIDAK TERDAPAT DALAM
BAHASA MELAYU'**

Bahagian C: Perkataan yang tidak terdapat dalam Bahasa Melayu (40 Markah)

Anda perlu menggariskan perkataan yang *tidak terdapat dalam Bahasa Melayu*. Anda dinasihati supaya mengambil masa *50 saat* untuk menjawab bahagian ini. Contoh di bawah adalah untuk rujukan anda.

Contoh:*pijak**injak**tijak*

Perkataan '*tijak*' tidak terdapat dalam Bahasa Melayu manakala perkataan '*pijak*' dan '*injak*' merupakan perkataan Bahasa Melayu. Maka jawapan yang salah adalah perkataan '*tijak*'.

BAHAGIAN C

**JANGAN MULA SEHINGGA DI
BERITAHU- 'PERKATAAN YANG
TIDAK TERDAPAT DALAM
BAHASA MELAYU'**

1. kaya	paya	taya
2. mana	sana	kana
3. daca	baca	kaca
4. data	pata	rata
5. nama	bama	sama
6. dari	tari	bari
7. zari	gari	kari
8. lagu	magu	laku
9. malu	balu	salu
10. bagi	pagi	nagi
11. batu	katu	satu
12. mada	pada	dada
13. hari	pari	bari
14. padi	vadi	jadi
15. cati	hati	jati
16. lagu	sagu	pagu
17. barat	karat	garat
18. rakar	bakar	pakar
19. dalam	walam	talam
20. dawat	kawat	pawat
21. xarga	warga	syurga
22. lurus	murus	kurus
23. laman	taman	qaman
24. lepat	depat	tepat
25. zerap	terap	serap
26. madah	wadah	fadah
27. zalar	malar	balar
28. yaras	paras	laras
29. baran	paran	daran
30. keruh	yeruh	geruh
31. zebas	kebas	bebas
32. ganas	panas	banas
33. jeret	leret	heret
34. sempat	tempat	dempat

35. datang	petang	cetang
36. tulang	hulang	dulang
37. ralang	lalang	balang
38. saling	baling	raling
39. sayang	jayang	wayang
40. daring	jaring	taring

**TAMAT BAHAGIAN C-
'PERKATAAN YANG TIDAK
TERDAPAT DALAM BAHASA
MELAYU'**

**JANGAN BUKA SEHINGGA DI
BERITAHU- 'BAHAGIAN
PERBENDAHARAAN BUNYI'**

NAMA:

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIBERITAHU

BAHASA MELAYU

PERBENDAHARAAN BUNYI

Masa: 4 minit 25 saat

Arahan:

1. Kertas soalan ini mengandungi **DUA** bahagian: *Bahagian A* dan *Bahagian B*.
2. Jawab **kedua-dua** bahagian.
3. Jawapan anda hendaklah ditulis di dalam kertas soalan tersebut.

Kegunaan Pemeriksa		
Bahagian	Jumlah	Markah
A	15	
B	20	
Jumlah	35	

Bahagian A: Suku Kata (15 Markah)

Anda perlu mengenal pasti *jumlah suku kata* bagi setiap perkataan di bawah. Anda dinasihati supaya mengambil masa **25 saat** untuk menjawab bahagian ini. Contoh di bawah adalah untuk rujukan anda.

Contoh:

syarikat *sya/ri/kat* 3

Perkataan *syarikat* mengandungi **TIGA (3)** suku kata kerana ianya disebut *sya/ri/kat*.

BAHAGIAN A

JANGAN MULA SEHINGGA DI

BERITAHU- 'SUKU KATA'

Perkataan	Jumlah Suku Kata
1. segi	_____
2. antarabangsa	_____
3. istana	_____
4. erti	_____
5. dwibudaya	_____
6. matlamat	_____
7. syarat	_____
8. pascamodenisme	_____
9. prokemerdekaan	_____
10. laporan	_____
11. sekalian	_____
12. pelaksanaannya	_____
13. universiti	_____
14. peristiwa	_____
15. kokurikulum	_____

**TAMAT BAHAGIAN A- 'SUKU
KATA'**

BAHAGIAN B

**JANGAN BUKA SEHINGGA DI
BERITAHU- 'PERKATAAN YANG
BERBUNYI SEPERTI
PERKATAAN BAHASA MELAYU'**

Bahagian B: Perkataan yang berbunyi seperti perkataan Bahasa Melayu (20 Markah)

Anda perlu mengenal pasti dan menggariskan perkataan yang *berbunyi seperti perkataan Bahasa Melayu* walaupun anda tidak pernah melihat atau mendengar perkataan tersebut sebelum ini. Anda dinasihati supaya mengambil masa **2 minit** untuk menjawab bahagian ini. Contoh di bawah adalah untuk rujukan anda.

Contoh:

bene bepi

Perkataan bene bila disebut berbunyi seperti perkataan bina manakala bepi tiada perkataan yang berbunyi seperti itu dalam Bahasa Melayu. Anda perlu menyebut setiap perkataan di bawah untuk mengenal pasti perkataan yang *berbunyi seperti perkataan Bahasa Melayu*.

BAHAGIAN B

**JANGAN MULA SEHINGGA DI
BERITAHU- 'PERKATAAN YANG
BERBUNYI SEPERTI
PERKATAAN BAHASA MELAYU'**

1. dusa	dupi
2. daireh	dairop
3. megoh	megeh
4. rihet	rihft
5. pirehak	pireksa
6. himht	himet
7. kaideh	kaidhe
8. sikuleh	sipoleh
9. peredut	perebut
10. upik	usek
11. goring	gating
12. nakmet	nekmet
13. senet	cenet
14. kafang	keleng
15. pemob	pemir
16. katon	kahan
17. boteng	baremg
18. afigen	adigan
19. ranpkes	rengkas
20. difenesi	dipenesi

TAMAT BAHAGIAN B-
‘PERKATAAN YANG BERBUNYI
SEPERTI PERKATAAN BAHASA
MELAYU’

**TAMAT BAHAGIAN UJIAN-
'PERBENDAHARAAN BUNYI'**

**JANGAN BUKA SEHINGGA DI
BERITAHU- 'BAHAGIAN
PENULISAN'**

NAMA:	Markah:
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**JANGAN BUKA KERTAS
SOALAN INI SEHINGGA
DIBERITAHU**

BAHASA MELAYU

PENULISAN

Masa: 30 minit

Arahan:

1. Kertas soalan ini mengandungi **TIGA** soalan.
 2. Jawab **SATU** soalan sahaja.
 3. Karangan anda hendaklah ditulis di dalam ruangan yang disediakan.
-

PENULISAN

Pilih **SATU** daripada soalan di bawah. Anda dinasihati supaya mengambil masa **30 minit** untuk menjawab bahagian ini.

1. Kedatangan buruh asing ke negara kita mendatangkan pelbagai kesan. Jelaskan kesan-kesan yang timbul daripada kemasukan pendatang buruh asing di negara kita.
2. Bidang pelancongan merupakan suatu industri yang menjadi salah satu punca pendapatan negara. Huraikan langkah-langkah yang dapat dilaksanakan untuk menjadikan destinasi pelancongan di Malaysia lebih menarik.
3. Gejala sosial yang melanda masyarakat di negara kita semakin serius dan memerlukan kerjasama yang jitu untuk menanganinya. Jelaskan peranan yang perlu dilakukan oleh pelbagai pihak untuk menangani gejala ini.

Number Soalan: _____

**JANGAN MULA SEHINGGA DI
BERITAHU- 'BAHAGIAN
PENULISAN'**

**TAMAT BAHAGIAN-
'PENULISAN'**

TAMAT SESI KEDUA

Appendix C: English Instruction Manual and Making Regulations

INSTRUCTION MANUAL FOR THE INVIGILATOR

ENGLISH MEASURES

- ✓ This is a group assessment which consists of **20** participants in a group.
 - ✓ The seating arrangement should be in four rows of five participants with appropriate distance from one row to another (*refer to Figure A: Floor Plan*).
 - ✓ The logistics aspects (e.g., light, air-conditioning, noise, etc.) should have been taken into consideration/made conducive prior to the assessment.
 - ✓ The participants' bags, mobile phones (silent mode) and other belongings should be placed in a secure designated area.
 - ✓ The participants are to be reminded of the rules against dishonesty and communicating with others once the assessment has started.
 - ✓ The invigilator should have extra pens (provided by the researcher) for the use of the participants in case they have forgotten to bring their pen(s) or run out of ink.
 - ✓ The participants are to be supervised throughout the assessment session.
 - ✓ The appointed invigilator is in charge of the session.
 - ✓ Each section within the assessment has its own specific instruction(s) and example(s).
 - ✓ The number of items per section and time allocation is stated in the instruction section.
 - ✓ In case the participants do not understand the instructions, the invigilator should repeat the instructions and examples before starting the assessment.
 - ✓ The assessment booklet is to be placed face-up, with the front cover displaying- '**DO NOT TURN THIS PAGE UNTIL YOU ARE ASKED TO**'.
 - ✓ The participants are required to answer in **English**.
 - ✓ The participants are to be informed of the starting and finishing time.
 - ✓ At the end of each session, the assessment booklets are to be collected, counted and placed in the envelope(s) provided by the researcher.
 - ✓ The essay scripts are to be numbered according to the Excel spreadsheet code, placed in the envelope, and handed to the researcher at the end of **SESSION FOUR** for centralised marking by external examiners.
-

SESSION THREE

General Instructions for the Participants

1. Participants are given **ONE** assessment booklet each.
2. Participants are **ONLY** allowed to bring their stationery (*e.g.*, *pen*) into the assessment hall/classroom.
3. Participants are required to put their hand-phones on silent mode and keep it in their bags.
4. Participants are required to write **ALL** their answers in the assessment booklet.
5. Participants are not allowed to talk/discuss throughout the assessment.
6. Participants should understand the instructions well before the assessment starts.

GRAMMAR

Section A: Recognizing Grammatical Mistakes

When all the participants are looking at *Section A: Recognizing Grammatical Mistakes*, read the following instructions and example:

‘There are four underlined words or phrases in each sentence given below. Read the sentences below carefully and circle the underlined word or phrase that is *incorrect* for each of the sentence. You are advised to spend **2 minutes** in this section. An example is given below for reference.’

Example:

Astronomers use photography and sighting telescopes to study the motions of all of the bright stars and many of the pale one.

A

B

C

(D)

Answer: D

When all the participants have clearly understood the instructions and the example, ask them to turn to the next page.

When all the participants are at *Section A: Recognizing Grammatical Mistakes*, start the assessment. Stop the assessment when the time is **2 minutes** and ask them to turn to the next page-*Section B: Sentence Completion*.

Section B: Sentence Completion

When all the participants are looking at *Section B: Sentence Completion*, read the following instructions and example:

‘Fill in the blank in each question by *circling* the most suitable word or phrase that completes the sentence. You are advised to spend *2 minutes* in this section. An example is given below for reference.’

Example:

Sophie is very keen _____ to the Art College in Kuala Lumpur.

C. about going

C. at going

B. on going

D. in going

Answer: B

When all the participants have clearly understood the instructions and the example, ask them to turn to the next page.

When all the participants are at *Section B: Sentence Completion*, start the assessment. Stop the assessment when the time is *2 minutes* and ask them to turn to the next page-*Vocabulary Test*.

VOCABULARY TEST

When all the participants are looking at the *Vocabulary Test*, read the following instructions and example:

‘This is a vocabulary test. You must choose the right word to go with each meaning. Write the number of that word next to its meaning. You are advised to spend *10 minutes* from *Section A* to *Section E*. Here is an example.’

- | | | |
|--------------|-------|----------------------------|
| 13. Business | | |
| 14. clock | _____ | part of a house |
| 15. horse | _____ | animal with four legs |
| 16. pencil | _____ | something used for writing |
| 17. shoe | | |
| 18. wall | | |

You answer it in the following way:

- | | | |
|--------------|----------|----------------------------|
| 13. business | | |
| 14. clock | <u>6</u> | part of a house |
| 15. horse | <u>3</u> | animal with four legs |
| 16. pencil | <u>4</u> | something used for writing |
| 17. shoe | | |
| 18. wall | | |

Some words are in the test to make it more difficult. You do not have to find a meaning for these words. In the example above, these words are business, clock, shoe.

Try to do every part of the test.

When all the participants have clearly understood the instructions and the example, ask them to turn to the next page.

When all the participants are at the *Vocabulary Test*, start the assessment. Stop the assessment when the time is *10 minutes* and ask them to turn to the next page-*Word Formation*.

WORD FORMATION

Section A: Non-Word Sentences

When all the participants are looking at *Section A: Non-Word Sentences*, read the following instructions and examples:

‘For each item, you will see a non-word and a sentence with a blank. Use the correct form to complete the non-word sentence. You are advised to spend **5 minutes** in this section. Two examples are given below for reference.’

Example One:

This animal is called a wug. There are four of them. There are four wugs.

Answer: wugs

Example Two:

This man knows how to zib. Yesterday, he zibbed. Today, he is doing the same thing. Today he is zibbing.

Answer: zibbing

When all the participants have clearly understood the instructions and the examples, ask them to turn to the next page.

When all the participants are at *Section A: Non-Word Sentences*, start the assessment. Stop the assessment when the time is **5 minutes** and ask them to turn to the next page-*Section B: Word Sentence*.

Section B: Word Sentence

When all the participants are looking at *Section B: Word Sentence*, read the following instructions and examples:

‘For each item, you will see a word and a sentence with a blank. Change the word that is given to fill in the blank in the sentence. Use only one word for each blank (no phrases). You must change the word that is given. You are advised to spend **5 minutes** in this section. Two examples are given below for reference.’

Example One:

John wanted to make a good impress on his first date.

Answer: impression

Example Two:

The farmer was concerned about the fertile of the fields prior to planting.

Answer: fertility

When all the participants have clearly understood the instructions and the examples, ask them to turn to the next page.

When all the participants are at **Section B: Word Sentence**, start the assessment. Stop the assessment when the time is **5 minutes** and ask them to turn to the next page-**Section C: Relatedness Test**.

Section C: Relatedness Test

When all the participants are looking at **Section C: Relatedness Test**, read the following instructions and examples:

‘Read the following word pairs and try to decide if the second word **comes from** the first word and has a similar meaning. Underline **YES** if you think the second word means the same thing or almost the same thing as the first word. Underline **NO** if you think the second word does not have a similar meaning to the first word. You are advised to spend **35 seconds** in this section. Two examples are given below for reference.’

Example One:

Answer: happy happiness YES NO

Example Two:

Answer: cat category YES NO

When all the participants have clearly understood the instructions and the examples, ask them to turn to the next page.

When all the participants are at **Section C: Relatedness Test**, start the assessment. Stop the assessment when the time is **35 seconds** and ask them to close the assessment booklet to avoid further writing.

This is the end of **SESSION THREE**. Participants are to remain seated at their places until all the assessment booklets have been collected.

When all the assessment booklets have been collected and counted (**20** participants in each session), they are allowed to leave the assessment venue.

SESSION FOUR

General Instruction

1. Participants are given **ONE** assessment booklet each.
2. Participants are **ONLY** allowed to bring their stationery (*e.g., pen*) into the assessment hall/classroom.
3. Participants are required to put their hand-phones on silent mode and keep it in their bags.
4. Participants are required to write **ALL** their answers in the assessment booklet.
5. Participants are not allowed to talk/discuss throughout the assessment.
6. Participants should understand the instructions well before the assessment starts.

SPELLING

Section A: Identifying Spelling Mistakes

When all the participants are looking at *Section A: Identifying Spelling Mistakes*, read the following instructions and example:

‘In this section you are given a pair of words, of which only one is correctly spelt. Identify and underline the correctly spelt word. You are advised to spend **2 minutes** in this section. An example is given below for reference.’

Example:

munk *monk*

Reason:

The word is ‘monk’; ‘munk’ is an incorrect spelling. Therefore, ‘monk’ should be underlined as it is the correct answer.

When all the participants have clearly understood the instructions and the example, ask them to turn to the next page.

When all the participants are at *Section A: Identifying Spelling Mistakes*, start the assessment. Stop the assessment when the time is **2 minutes** and ask them to turn to the next page-*Section B: Correct Spelling in English*.

Section B: Correct Spelling System in English

When all the participants are looking at *Section B: Correct Spelling System in English*, read the following instructions and example:

‘In this section you are given a pair of words, of which only one sounds like a *real* English word. Identify and underline the word that looks/sounds more like an English word, even if you have not seen or heard these words before. You are advised to spend *2 minutes* in this section. An example is given below for reference.’

Example:

baff *bbaf*

Reason:

The answer is ‘*baff*’ because it sounds like ‘*baffle*’ whereas ‘*bbaf*’ does not sound like a real word because in the English spelling system ‘*bb*’ sound does not occur at the beginning of a word. Therefore, ‘*bbaf*’ is underlined as correct.

When all the participants have clearly understood the instructions and the example, ask them to turn to the next page.

When all the participants are at *Section B: Correct Spelling System in English*, start the assessment. Stop the assessment when the time is *2 minutes* and ask them to turn to the next page-*Section C: Words that are not in English*.

Section C: Words that are not in English

When all the participants are looking at *Section C: Words that are not in English*, read the following instructions and example:

‘In this section you are given **three** words, of which only one is not an English word. Identify and underline the word that is not an English word. You are advised to spend **50 seconds** in this section. An example is given below for reference.’

Example:

see sea cee

When all the participants have clearly understood the instructions and the example, ask them to turn to the next page.

When all the participants are at *Section C: Words that are not in English*, start the assessment. Stop the assessment when the time is **50 seconds** and ask them to turn to the next page-*Word Sounds*.

WORD SOUNDS

Section A: Syllables

When all the participants are looking at *Section A: Syllables*, read the following instructions and example:

‘Identify and write the number of syllabi per word below. You are advised to spend **25 seconds** in this section. An example is given below for reference.’

Example:

café ca/fé 2

When all the participants have clearly understood the instructions and the example, ask them to turn to the next page.

When all the participants are at *Section A: Syllables*, start the assessment. Stop the assessment when the time is **25 seconds** and ask them to turn to the next page-*Section B: Sounds like an English Word*.

Section B: Sound like an English Word

When all the participants are looking at *Section B: Sound like an English Word*, read the following instructions and example:

‘Identify and underline the word that sounds more like an English word, even if you have not seen or heard these words before. You are advised to spend **2 minutes** in this section. An example is given below for reference.’

Example:

caim pame

Reason:

The answer ‘*caim*’ because it sounds like the word ‘*came*’ whereas the word ‘*pame*’ has no word which sounds ‘*pame*’ in English .

When all the participants have clearly understood the instructions and the example, ask them to turn to the next page.

When all the participants are at *Section B: Sound like an English Word*, start the assessment. Stop the assessment when the time is **2 minutes** and ask them to turn to the next page-*Essay Writing*.

ESSAY WRITING

When all the participants are looking at the *Essay Writing*, read the following instructions and the essay topics:

‘Choose ***ONE*** of the following topics below. Your essay should have coherence. You are advised to spend ***30 minutes*** in this section.’

4. How can we prevent global warming from destroying our planet?
5. Why do teenagers depend on Facebook to make new friends?
6. What makes life too hectic to be enjoyed nowadays?

Topic number: _____

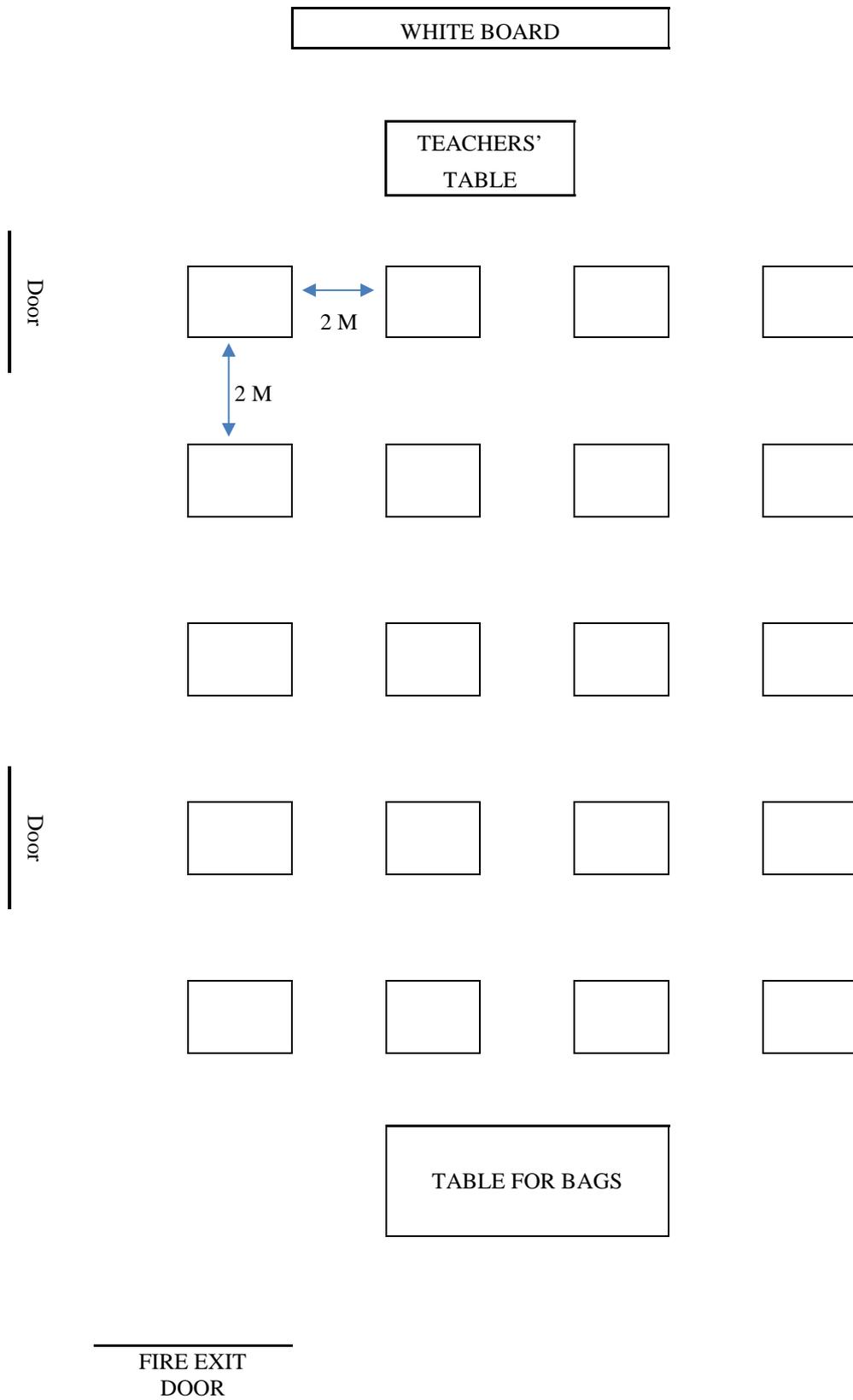
When all the participants have clearly understood the instructions and the topics, ask them to start the assessment.

Stop the assessment when the time is ***30 minutes*** and asked them to close the assessment booklet to avoid further writing.

This is the end of ***SESSION FOUR***. Participants are to remain seated at their places until all the assessment booklets have been collected.

When all the assessment booklets have been collected and counted (***20*** participants in each session), they are allowed to leave the assessment venue.

Figure A: Floor Plan



MARKING REGULATIONS FOR THE EXAMINER

ENGLISH MEASURES

- ✓ The scoring guide is **CONFIDENTIAL** and **COPYRIGHT RESERVED**.
- ✓ The marking scheme booklet is strictly for the use of the examiner concerned.
- ✓ The information in the marking scheme is not transferable in any form either written or printed.
- ✓ The marked assessment booklets are to be kept in a secure place, such as a safe or lockable cupboard until they are collected by the researcher.

SESSION THREE

Marking Instructions for the Examiner

1. Each section has its own marking instructions and answer keys.
2. Mark according to the marking scheme.
3. Enter the scores into the Excel spreadsheet provided.

GRAMMAR

Section A: Recognizing Grammatical Mistakes

Marking

1. Scores for each item should be entered into the Excel spreadsheet provided.
2. If the student had circled the correct answer, award *1* mark, whereas, if the student had incorrectly circled or had not attempted to answer the question at all they are awarded *0*.
3. A total score out of *10* is obtained by adding all the correct items.

Answer Key

1. D
2. C
3. D
4. D
5. D
6. D
7. D
8. B
9. A
10. B

Section B: Sentence Completion**Marking**

1. Scores for each item should be entered into the Excel spreadsheet provided.
2. If the student had circled the correct answer, award *1* mark, whereas, if the student had incorrectly circled or had not attempted to answer the question at all they are awarded *0*.
3. A total score out of *10* is obtained by adding all the correct items.

Answer Key

1. B
2. A
3. B
4. D
5. A
6. A
7. B
8. B
9. A
10. C

VOCABULARY TEST

Marking

1. Scores for each item should be entered into the Excel spreadsheet provided.
2. If the student had numbered the correct definition, award *1* mark, whereas, if the student had incorrectly numbered or had not attempted to answer the question at all they are awarded *0*.
3. A total score out of *75* is obtained by adding all the correct items.

Answer Key

Section A	Section B	Section C	Section D	Section E
1. 5,6,1	1. 4,5,1	1. 2,1,4	1. 2,3,4	1. 1,6,4
2. 2,5,3	2. 3,4,6	2. 4,6,2	2. 5,4,1	2. 4,5,3
3. 1,6,4	3. 3,4,6	3. 1,2,3	3. 3,6,1	3. 1,2,3
4. 1,2,6	4. 1,5,6	4. 1,4,5	4. 5,1,6	4. 4,3,1
5. 6,4,1	5. 6,3,1	5. 3,2,5	5. 1,5,4	5. 2,3,4

WORD FORMATION

Section A: Non-Word Sentences

Marking

1. Scores for each item should be entered into the Excel spreadsheet provided.
2. If the student had used the correct form to complete the non-word sentence, award *1* mark, whereas, if the student had incorrectly used the form to complete the non-word sentence or had not attempted to answer the question at all they are awarded *0*.
3. A total score out of *15* is obtained by adding all the correct items.

Answer Key

1. stotted
2. huxes
3. fleamped
4. kresting
5. geeching
6. gutches
7. herked
8. nizzes
9. motted
10. nazzes
11. bodded
12. kazhes
13. ceep
14. clomed
15. mabs

Section B: Word Sentence

Marking

1. Scores for each item should be entered into the Excel spreadsheet provided.
2. If the student had used the correct form to complete the word sentence, award *1* mark, whereas, if the student had incorrectly used the form to complete the word sentence or had not attempted to answer the question at all they are awarded *0*.
3. A total score out of *15* is obtained by adding all the correct items.

Answer Key

1. muscular
2. corrective
3. productive

4. logician
5. odorous
6. demonstrative
7. weariness
8. intensive *or* intensified
9. electrician
10. oddity
11. observable
12. tension
13. critical
14. diversity *or* diversification
15. migratory *or* migrational

Section C: Relatedness Test

Marking

1. Scores for each item should be entered into the Excel spreadsheet provided.
2. If the student had underlined the correct answer, award *1* mark, whereas, if the student had underlined incorrectly, had underlined both answers or had not attempted to answer the question at all they are awarded *0*.
3. A total score out of **25** is obtained by adding all the correct items.

1. NO	6. NO	11. NO	16. YES	21. NO
2. YES	7. YES	12. NO	17. NO	22. YES
3. NO	8. YES	13. YES	18. NO	23. NO
4. YES	9. NO	14. YES	19. NO	24. NO
5. YES	10. YES	15. NO	20. YES	25. YES

SESSION FOUR

Marking Instructions for the Examiner

1. Each section has its own marking instructions and answer keys.
2. Mark according to the marking scheme.
3. Enter the scores into the Excel spreadsheet provided.

SPELLING

Section A: Identifying Spelling Mistakes

Marking

1. Scores for each item should be entered into the Excel spreadsheet provided.
2. If the student had underlined the correct spelling, award **1** mark, whereas, if the student had underlined incorrectly, had underlined both answers or had not attempted to answer the question at all they are awarded **0**.
3. A total score out of **20** is obtained by adding all the correct items.

Answer

21. thumb
22. wagon
23. bloom
24. tuition
25. turtle
26. stream
27. rescue
28. feud
29. relevant
30. believe
31. separate
32. piece
33. necessary
34. amenities
35. accessible
36. disguise
37. circus
38. obesity
39. castle
40. skate

Section B: Correct Spelling System in English

Marking

1. Scores for each item should be entered into the Excel spreadsheet provided.
2. If the student had underlined the word that looks/sounds more like an English word, award **1** mark, whereas, if the student had underlined incorrectly, had underlined both answers or had not attempted to answer the question at all they are awarded **0**.
3. A total score out of **18** is obtained by adding all the correct items.

Answer Key

19. beff
20. dalled
21. yikk
22. vadding
23. dacker
24. vadd
25. munt
26. moil
27. bei
28. daw
29. gry
30. chim
31. milg
32. visn
33. phim
34. skap
35. vost
36. nuss

Section C: Words that are not in English

Marking

1. Scores for each item should be entered into the Excel spreadsheet provided.
2. If the student had underlined the word which is not an English word, award **1** mark, whereas, if the student had underlined incorrectly, had underlined all three/two answers or had not attempted to answer the question at all they are awarded **0**.
3. A total score out of **40** is obtained by adding all the correct items.

Answer Key

1. heer	11. maat	21. priy	31. doeh
2. kniw	12. plein	22. hird	32. baes
3. theer	13. roal	23. weit	33. bere
4. bloo	14. diar	24. ruote	34. rews
5. sumn	15. fere	25. flaor	35. paak
6. wiagh	16. loen	26. soal	36. lxyn
7. zent	17. rayn	27. neght	37. mede
8. qell	18. staa	28. sein	38. fer
9. braek	19. peece	29. idel	39. dae
10. wuuld	20. syte	30. soe	40. muccel

WORD SOUNDS**Section A: Syllables****Marking**

1. Scores for each item should be entered into the Excel spreadsheet provided.
2. If the student had written the correct number of syllabi per word, award **1** mark, whereas, if the student had written the number of syllabi per word incorrectly, or had not attempted to answer the question at all they are awarded **0**.
3. A total score out of **15** is obtained by adding all the correct items.

Answer Key

1. 1
2. 4
3. 2
4. 5
5. 1
6. 4
7. 1
8. 3
9. 2
10. 3
11. 2
12. 5
13. 3
14. 4
15. 5

Section B: Sound like an English Word**Marking**

1. Scores for each item should be entered into the Excel spreadsheet provided.
2. If the student had underlined the word that sounds more like an English word, award *1* mark, whereas, if the student had underlined incorrectly, had underlined both answers or had not attempted to answer the question at all they are awarded *0*.
3. A total score out of **20** is obtained by adding all the correct items.

Answer Key

21. lait
22. trane
23. braive
24. fite
25. ait
26. klass
27. derty
28. joak
29. neer
30. seet
31. thru
32. fead
33. fense
34. thair
35. fether
36. naim
37. docter
38. leeve
39. reech
40. tracter

ESSAY WRITING

Marking

1. Scores for each item should be entered into the Excel spreadsheet provided.
2. Marks are awarded based on the ESL Composition Scoring Rubrics Profile (refer below). The marks are allocated **20** each according to: Content, Organisation, Vocabulary, Language use and Mechanics.
3. If the student had not attempted to answer the question at all, they are awarded **0**.
4. A total score out of **100** is obtained by adding all their scores.

Source: Jacobs, H. L., Zingraf, S. A. Wormuth, D. R., Hartfiel, V. F. & Hughey, J. B. (1981). *Testing ESL composition: A practical approach*. Rowley, Massachusetts: Newbury House.

ESL COMPOSITION PROFILE			
STUDENT		DATE	TOPIC
CATEGORY	SCORE	CRITERIA	COMMENTS
CONTENT	16-20	EXCELLENT TO VERY GOOD: knowledgeable * substantive * thorough development of thesis * relevant to assigned topic	
	11-15	GOOD TO AVERAGE: some knowledge of subject * adequate range * limited development of thesis * mostly relevant to topic, but lacks detail	
	6-10	FAIR TO POOR: limited knowledge of subject * little substance * inadequate development of topic	
	1-5	VERY POOR: does not show knowledge of subject * non-substantive * non pertinent * OR not enough to evaluate	
ORGANISATION	16-20	EXCELLENT TO VERY GOOD: fluent expression * ideas clearly stated/ supported * succinct * well-organised * logical sequencing * cohesive	
	11-15	GOOD TO AVERAGE: somewhat choppy * loosely organised but main ideas stand out * limited support * logical but incomplete sequencing	
	6-10	FAIR TO POOR: non-fluent * ideas confused or disconnected * lacks logical sequencing and development	
	1-5	VERY POOR: does not communicate * no organisation * OR not enough to evaluate	
VOCABULARY	16-20	EXCELLENT TO VERY GOOD: sophisticated range * effective word/idiom choice and usage * word for mastery * appropriate register	
	11-15	GOOD TO AVERAGE: adequate range * occasional errors of effective word/idiom form, choice, usage <i>but meaning not obscured</i>	
	6-10	FAIR TO POOR: limited range * frequent errors of effective word/idiom form, choice, usage * <i>meaning confused or obscured</i>	
	1-5	VERY POOR: essentially translation * little knowledge of English vocabulary, idioms, word form * OR not enough to evaluate	
LANGUAGE USE	16-20	EXCELLENT TO VERY GOOD: effective complex constructions * few errors of agreement, tense, number, word order/function, article, pronouns, prepositions	
	11-15	GOOD TO AVERAGE: effective but simple constructions * minor problems in complex constructions * several errors of agreement, tense, number, word order/function, article, pronouns, prepositions <i>but meaning seldom obscured</i>	
	6-10	FAIR TO POOR: major problems in simple/ complex constructions * frequent errors of negation, tense, number, word order/function, article, pronouns, prepositions and/ or fragments, run-ons, deletions * meaning confused or obscured	
	1-5	VERY POOR: virtually no mastery of sentence construction rules * dominated by errors * does not communicate * OR not enough to evaluate	
MECHANICS	16-20	EXCELLENT TO VERY GOOD: demonstrates mastery of conventions * few errors of spelling, punctuation, capitalisation, paragraphing	
	11-15	GOOD TO AVERAGE: occasional errors of spelling, punctuation, capitalisation, paragraphing <i>but meaning not obscured</i>	
	6-10	FAIR TO POOR: frequent errors of spelling, punctuation, capitalisation, paragraphing * poor handwriting * <i>meaning confused or obscured</i>	
	1-5	VERY POOR: no mastery of conventions * dominated by errors of spelling, punctuation, capitalisation, paragraphing * handwriting illegible * OR not enough to evaluate	
TOTAL SCORE		READER	COMMENTS

Appendix D: Malay Instruction Manual and Making Regulations

ARAHAN BAGI PENGAWAS PEPERIKSAAN

PENILAIAN BAHASA MELAYU

- ✓ Penilaian ini dilaksanakan secara berkumpulan dan setiap kumpulan terdiri daripada 20 calon.
 - ✓ Tempat duduk calon perlu disusun mengikut empat baris lima lajur dengan jarak yang sama bagi setiap baris (*rujuk kepada Gambar rajah A: Pelan lantai*).
 - ✓ Pengawas peperiksaan perlu memastikan semua peralatan (cth. lampu, penyaman udara, alat siar raya, dll.) berfungsi dalam keadaan yang baik sebelum penilaian bermula.
 - ✓ Calon diingatkan supaya telefon bimbit (dalam mod senyap), beg dan barang-barang lain perlu diletakkan di tempat yang selamat yang akan ditetapkan oleh Pengawas peperiksaan.
 - ✓ Calon tidak boleh meniru atau melibatkan diri dalam sebarang perbuatan yang mencurigakan semasa penilaian ini dilaksanakan.
 - ✓ Pen tambahan perlu disediakan kepada calon oleh Pengawas peperiksaan sekiranya calon lupa membawa pen atau kehabisan dakwat.
 - ✓ Calon akan diperhatikan sepenuhnya oleh Pengawas peperiksaan sewaktu penilaian dilaksanakan.
 - ✓ Pengawas peperiksaan yang bertugas bertanggungjawab sepenuhnya dalam melaksanakan sesi penilaian.
 - ✓ Setiap bahagian dalam penilaian mempunyai arahan khusus dan contoh tersendiri.
 - ✓ Bilangan soalan dan peruntukkan masa dinyatakan dalam setiap bahagian soalan.
 - ✓ Sekiranya mana-mana calon tidak memahami arahan, Pengawas peperiksaan perlu mengulangi arahan dan contoh sebelum memulakan penilaian.
 - ✓ Pada permulaan setiap sesi penilaian, bahagian hadapan buku penilaian perlu memaparkan-**JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIBERITAHU.**
 - ✓ Calon dikehendaki menjawab **SEMUA** soalan dalam buku penilaian dengan menggunakan Bahasa Melayu.
 - ✓ Pengawas peperiksaan perlu mengingatkan calon masa permulaan dan tamat penilaian.
 - ✓ Pada akhir setiap sesi penilaian, buku penilaian perlu dipungut, dikira dan dimasukkan ke dalam sampul surat yang disediakan oleh penyelidik.
 - ✓ Selepas penandaan, buku penilaian hendaklah disimpan di tempat yang selamat seperti almari yang berkunci sehingga ianya diambil oleh penyelidik.
 - ✓ Skrip esei hendaklah dikodkan mengikut nama calon, diletakkan di dalam sampul surat dan serahkan kepada penyelidik pada akhir **SESI KEDUA** untuk penandaan.
-

SESI PERTAMA

Arahan am bagi Calon

1. Setiap calon diberikan **SATU** buku penilaian sahaja.
2. Calon hanya dibenarkan membawa alat tulis (cth. pen) ke dalam dewan/bilik penilaian.
3. Calon perlu menyimpan segala peralatan yang berharga dalam beg termasuk telefon bimbit (dalam mod senyap).
4. Calon dikehendaki menulis **SEMUA** jawapan mereka di dalam buku penilaian.
5. Calon tidak dibenarkan untuk bercakap / berbincang sepanjang penilaian.
6. Calon perlu memahami dengan teliti arahan soalan sebelum penilaian bermula.

TATABAHASA

Bahagian A: Mengenal Pasti Kesalahan Tatabahasa

Apabila semua calon berada di bahagian-*Bahagian A: Mengenal Pasti Kesalahan Tatabahasa*, sila baca arahan soalan dan contoh berikut:

‘Dalam setiap ayat di bawah terdapat satu *kesalahan penggunaan kata* atau *tatabahasa*. Baca ayat di bawah dengan teliti dan bulatkan perkataan yang bergaris atau frasa yang tidak betul bagi setiap ayat. Anda dinasihati supaya mengambil masa **2 minit** untuk menjawab bahagian ini. Contoh di bawah adalah untuk rujukan anda.’

Contoh:

Sejenis spesies baru cendawan yang terbesar di dunia telah ditemui di Mexico baru-baru ini.

A

B

C

D

Jawapan: C

Apabila semua calon memahami dengan jelas arahan dan contoh, minta calon untuk membuka halaman seterusnya.

Apabila semua calon di bahagian-*Bahagian A: Mengenal Pasti Kesalahan Tatabahasa*, memulakan penilaian. Hentikan penilaian tersebut sebaik sahaja masa menunjukkan **2 minit** dan minta calon untuk membuka halaman seterusnya-*Bahagian B: Melengkapkan Ayat*.

Bahagian B: Melengkapkan Ayat

Apabila semua calon berada di bahagian-**Bahagian B: Melengkapkan Ayat**, sila baca arahan soalan dan contoh berikut:

‘Anda perlu memilih *penggunaan kata* atau *tatabahasa* yang sesuai. Baca ayat di bawah dengan teliti dan bulatkan jawapan anda. Anda dinasihati supaya mengambil masa **2 minit** untuk menjawab bahagian ini. Contoh di bawah adalah untuk rujukan anda.’

Contoh:

Pelaksanaan Kawasan Perdagangan Bebas ASEAN (AFTA) menyebabkan para peniaga bersaing _____ satu sama lain.

C. dengan

B. antara

E. dari

D. daripada

Jawapan: B. antara

Apabila semua calon memahami dengan jelas arahan dan contoh, minta calon untuk membuka halaman seterusnya.

Apabila semua calon di bahagian-**Bahagian B: Melengkapkan Ayat**, memulakan penilaian. Hentikan penilaian tersebut sebaik sahaja masa menunjukkan **2 minit** dan minta calon untuk membuka halamam seterusnya-**Ujian Kosakata**.

KOSA KATA

Apabila semua calon berada di bahagian-*Ujian Kosa kata*, sila baca arahan soalan dan contoh berikut:

‘Bahagian ini menguji pemahaman kosa kata Anda perlu mengenal pasti jawapan yang betul bagi setiap maksud yang diberikan. Tulis jawapan anda bersebelahan dengan maksudnya. Anda dinasihatkan supaya mengambil masa **10 minit** untuk menjawab bahagian **A** hingga **E**. Contoh di bawah adalah untuk rujukan anda.’

- 13. sahsiah
- 14. obligasi _____ ungkapan
- 15. slogan _____ bercakap sendiri
- 16. amanah _____ semangat
- 17. kejujuran
- 18. monolog

Jawapan anda perlu mengikuti turutan yang berikut:

- 13. sahsiah
- 14. obligasi 3 ungkapan
- 15. slogan 6 bercakap sendiri
- 16. amanah 2 semangat
- 17. kejujuran
- 18. monolog

Perkataan lain dalam penilaian ini adalah untuk menentukan sama ada anda dapat mengenal pasti maksud yang tepat bagi kosa kata tersebut. Anda tidak perlu mencari maksud bagi perkataan tersebut. Dalam contoh di atas, perkataan **sahsiah**, **amanah** dan **kejujuran**, adalah pilihan perkataan selain daripada jawapan, yang perlu diabaikan.

Anda dikehendaki menjawab semua bahagian di penilaian ini.

Apabila semua calon memahami dengan jelas arahan dan contoh, minta calon untuk membuka halaman seterusnya.

Apabila semua calon di bahagian-*Ujian Kosa Kata*, memulakan penilaian. Hentikan penilaian tersebut sebaik sahaja masa menunjukkan **2 minit** dan minta calon untuk membuka halaman seterusnya- **Imbuan**.

IMBUHAN

Bahagian A: Penggunaan Imbuan Bagi Perkataan Yang Bukan Daripada Bahasa Melayu

Apabila semua calon berada di bahagian-*Bahagian A: Penggunaan Imbuan bagi Perkataan yang Bukan daripada Bahasa Melayu*, sila baca arahan soalan dan contoh-contoh berikut:

‘Setiap ayat di bawa mengandungi *perkataan yang bukan daripada* Bahasa Melayu. Anda perlu menggunakan imbuan yang sesuai untuk melengkapkan ayat tersebut. Anda dinasihati supaya mengambil masa *5 minit* untuk menjawab bahagian ini. Contoh-contoh di bawah adalah untuk rujukan anda.’

Contoh Pertama:

Di belakang rumah saya ada beberapa runda. Ada runda kelapa, runda rambutan dan runda durian. Tetapi di belakang rumah Hasnah kawasannya lapang dan tidak berunda.

Jawapan: berunda

Contoh Kedua:

Halim meninjuk kepada lukisan itu. Dia meninjukkan bahawa lukisan itu adalah palsu.

Jawapan: meninjukkan

Apabila semua calon memahami dengan jelas arahan dan contoh-contoh, minta calon untuk membuka halaman seterusnya.

Apabila semua calon di bahagian-*Bahagian A: Penggunaan Imbuan bagi Perkataan yang Bukan daripada Bahasa Melayu*, memulakan penilaian. Hentikan penilaian tersebut sebaik sahaja masa menunjukkan *5 minit* dan minta calon untuk membuka halaman seterusnya-*Bahagian B: Penggunaan Imbuan Bagi Perkataan Bahasa Melayu*.

Bahagian B: Penggunaan Imbuhan Bagi Perkataan Bahasa Melayu

Apabila semua calon berada di bahagian-*Bahagian B: Penggunaan Imbuhan Bagi Perkataan Bahasa Melayu*, sila baca arahan soalan dan contoh-contoh berikut:

‘Anda perlu menggunakan imbuhan yang betul untuk melengkapkan ayat tersebut. Anda dinasihati supaya mengambil masa *5 minit* untuk menjawab bahagian ini. Contoh-contoh di bawah adalah untuk rujukan anda.’

Contoh Pertama:

Kelulusan dalam mata pelajaran Bahasa Melayu menjadi satu prasyarat untuk masuk Tingkatan Enam.

Jawapan: memasuki

Contoh Kedua:

Remaja perlu lengkap diri dengan pelbagai kemahiran untuk mendepani pelbagai cabaran pada masa hadapan.

Jawapan: melengkapkan

Apabila semua calon memahami dengan jelas arahan dan contoh-contoh, minta calon untuk membuka halaman seterusnya.

Apabila semua calon di bahagian-*Bahagian B: Penggunaan Imbuhan Bagi Perkataan Bahasa Melayu*, memulakan penilaian. Hentikan penilaian tersebut sebaik sahaja masa menunjukkan *5 minit* dan minta calon untuk membuka halaman seterusnya-*Bahagian C: Penggunaan Imbuhan Dalam Perkataan*.

Bahagian C: Penggunaan Imbuhan Dalam Perkataan

Apabila semua calon berada di bahagian-*Bahagian C: Penggunaan Imbuhan Dalam Perkataan*, sila baca arahan soalan dan contoh-contoh berikut:

‘Anda perlu memastikan **kata dasar** bagi perkataan yang diberikan dengan menggariskan **YA** jika perkataan kedua berasal daripada perkataan pertama *atau* **TIDAK** jika perkataan kedua tidak berasal daripada perkataan pertama. Anda dinasihati supaya mengambil masa **35 saat** untuk menjawab bahagian ini. Contoh-contoh di bawah adalah untuk rujukan anda.’

Contoh Pertama:

kebun *pekebun* YA *TIDAK*

Contoh Kedua:

nasi *penasihat* *YA* TIDAK

Apabila semua calon memahami dengan jelas arahan dan contoh-contoh, minta calon untuk membuka halaman seterusnya.

Apabila semua calon di bahagian-*Bahagian C: Penggunaan Imbuhan Dalam Perkataan*, memulakan penilaian. Hentikan penilaian tersebut sebaik sahaja masa menunjukkan **35 saat** dan arahkan calon untuk berhenti menjawab dan menutup buku penilaian.

Tamat **SESI PERTAMA**. Para calon diarahakan untuk duduk di tempat masing-masing sehingga semua buku penilaian dipungut oleh Pengawas peperiksaan.

Setelah semua buku penilaian dipungut dan dikira (20 calon dalam setiap sesi penilaian), para calon dibenarkan untuk meninggalkan tempat penilaian oleh Pengawas peperiksaan.

SESI KEDUA

Arahan am bagi Calon

1. Setiap calon diberikan **SATU** buku penilaian sahaja.
2. Calon hanya dibenarkan membawa alat tulis (cth. pen) ke dalam dewan/bilik penilaian.
3. Calon perlu menyimpan segala peralatan yang berharga dalam beg termasuk telefon bimbit (dalam mod senyap).
4. Calon dikehendaki menulis **SEMUA** jawapan mereka di dalam buku penilaian.
5. Calon tidak dibenarkan untuk bercakap / berbincang sepanjang penilaian.
6. Calon perlu memahami dengan teliti arahan soalan sebelum penilaian bermula.

EJAAN

Bahagian A: Mengenal pasti Kesalahan Ejaan

Apabila semua calon berada di bahagian-*Bahagian A: Mengenal pasti Kesalahan Ejaan*, sila baca arahan soalan dan contoh berikut:

‘Anda perlu mengenal pasti ejaan yang *betul* dan mengariskannya. Anda dinasihati supaya mengambil masa *2 minit* untuk menjawab bahagian ini. Contoh di bawah adalah untuk rujukan anda.’

Contoh:

bumiputra *bumiputera*

Perkataan ‘*bumiputera*’ adalah ejaan yang betul kerana ianya diejaan sebagai */bumi/pu/te/ra/* bukan */bumi/pu/tra/*.

Apabila semua calon memahami dengan jelas arahan dan contoh, minta calon untuk membuka halaman seterusnya.

Apabila semua calon di bahagian-*Bahagian A: Mengenal pasti Kesalahan Ejaan*, memulakan penilaian. Hentikan penilaian tersebut sebaik sahaja masa menunjukkan *2 minit* dan minta calon untuk membuka halaman seterusnya-*Bahagian B: Perkataan yang berbunyi seperti perkataan Bahasa Melayu*.

Bahagian B: Perkataan yang berbunyi seperti perkataan Bahasa Melayu

Apabila semua calon berada di bahagian-*Bahagian B: Perkataan yang berbunyi seperti perkataan Bahasa Melayu*, sila baca arahan soalan dan contoh berikut:

‘Anda perlu mengenal pasti dan menggariskan perkataan yang *berbunyi seperti perkataan Bahasa Melayu* walaupun anda tidak pernah melihat atau mendengar perkataan tersebut sebelum ini. Anda dinasihati supaya mengambil masa **2 minit** untuk menjawab bahagian ini. Contoh di bawah adalah untuk rujukan anda.’

Contoh:

merba

berba

Jawapan ‘*berba*’ adalah betul disebabkan dalam ejaan Bahasa Melayu, kita tidak menggunakan imbuhan *mer-* untuk perkataan bahaya, jadi ejaan yang betul adalah *berbahaya*.

Apabila semua calon memahami dengan jelas arahan dan contoh, minta calon untuk membuka halaman seterusnya.

Apabila semua calon di bahagian-*Bahagian B: Perkataan yang berbunyi seperti perkataan Bahasa Melayu*, memulakan penilaian. Hentikan penilaian tersebut sebaik sahaja masa menunjukkan **2 minit** dan minta calon untuk membuka halaman seterusnya-*Bahagian C: Perkataan yang tidak terdapat dalam Bahasa Melayu*.

Bahagian C: Perkataan yang tidak terdapat dalam Bahasa Melayu

Apabila semua calon berada di bahagian-*Bahagian C: Perkataan yang tidak terdapat dalam Bahasa Melayu*, sila baca arahan soalan dan contoh berikut:

‘Anda perlu menggariskan perkataan yang *tidak terdapat dalam Bahasa Melayu*. Anda dinasihati supaya mengambil masa *50 saat* untuk menjawab bahagian ini. Contoh di bawah adalah untuk rujukan anda.’

Contoh:

pijak

injak

tijak

Perkataan ‘*tijak*’ tidak terdapat dalam Bahasa Melayu manakala perkataan ‘*pijak*’ dan ‘*injak*’ merupakan perkataan Bahasa Melayu. Maka jawapan yang salah adalah perkataan ‘*tijak*’.

Apabila semua calon memahami dengan jelas arahan dan contoh, minta calon untuk membuka halaman seterusnya.

Apabila semua calon di bahagian-*Bahagian C: Perkataan yang tidak terdapat dalam Bahasa Melayu*, memulakan penilaian. Hentikan penilaian tersebut sebaik sahaja masa menunjukkan *50 saat* dan minta calon untuk membuka halaman seterusnya-*Perbendaharaan Bunyi*.

PERBENDAHARAAN BUNYI

Bahagian A: Suku Kata

Apabila semua calon berada di bahagian-*Bahagian A: Suku Kata*, sila baca arahan soalan dan contoh berikut:

‘Anda perlu mengenal pasti *jumlah suku kata* bagi setiap perkataan di bawah. Anda dinasihati supaya mengambil masa *25 saat* untuk menjawab bahagian ini. Contoh di bawah adalah untuk rujukan anda.’

Contoh:

syarikat *sya/ri/kat* 3

Perkataan *syarikat* mengandungi **TIGA (3)** suku kata kerana ianya disebut *sya/ri/kat*.

Apabila semua calon memahami dengan jelas arahan dan contoh, minta calon untuk membuka halaman seterusnya.

Apabila semua calon di bahagian-*Bahagian A: Suku Kata*, memulakan penilaian. Hentikan penilaian tersebut sebaik sahaja masa menunjukkan *25 saat* dan minta calon untuk bertukar halaman seterusnya-*Bahagian B: Perkataan yang berbunyi seperti perkataan Bahasa Melayu*.

Bahagian B: Berbunyi Seperti Perkataan Bahasa Melayu

Apabila semua calon berada di bahagian-*Bahagian B: Berbunyi Seperti Perkataan Bahasa Melayu*, sila baca arahan soalan dan contoh berikut:

‘Anda perlu mengenal pasti dan menggariskan perkataan yang *berbunyi seperti perkataan Bahasa Melayu* walaupun anda tidak pernah melihat atau mendengar perkataan tersebut sebelum ini. Anda dinasihati supaya mengambil masa **2 minit** untuk menjawab bahagian ini. Contoh di bawah adalah untuk rujukan anda.’

Contoh:

bene bepi

Perkataan bene bila disebut berbunyi seperti perkataan bina manakala bepi tiada perkataan yang berbunyi seperti itu dalam Bahasa Melayu. Anda perlu menyebut setiap perkataan dibawah untuk mengenal pasti perkataan yang *berbunyi seperti perkataan Bahasa Melayu*.

Apabila semua calon memahami dengan jelas arahan dan contoh, minta calon untuk membuka halaman seterusnya.

Apabila semua calon di bahagian-*Bahagian B: Berbunyi Seperti Perkataan Bahasa Melayu*, memulakan penilaian. Hentikan penilaian tersebut sebaik sahaja masa menunjukkan **2 minit** dan minta calon untuk membuka halaman seterusnya-*Penulisan*.

PENULISAN

Apabila semua calon berada di bahagian-*Penulisan*, sila baca arahan soalan dan topik-topik berikut:

‘Pilih *SATU* daripada soalan di bawah. Anda dinasihati supaya mengambil masa *30 minit* untuk menjawab bahagian ini.’

4. Kedatangan buruh asing ke negara kita mendatangkan pelbagai kesan. Jelaskan kesan-kesan yang timbul daripada kemasukan pendatang buruh asing di negara kita.
5. Bidang pelancongan merupakan suatu industri yang menjadi salah satu punca pendapatan negara. Huraikan langkah-langkah yang dapat dilaksanakan untuk menjadikan destinasi pelancongan di Malaysia lebih menarik.
6. Gejala sosial yang melanda masyarakat di negara kita semakin serius dan memerlukan kerjasama yang jitu untuk menanganinya. Jelaskan peranan yang perlu dilakukan oleh pelbagai pihak untuk menangani gejala ini.

Nombor Soalan: _____

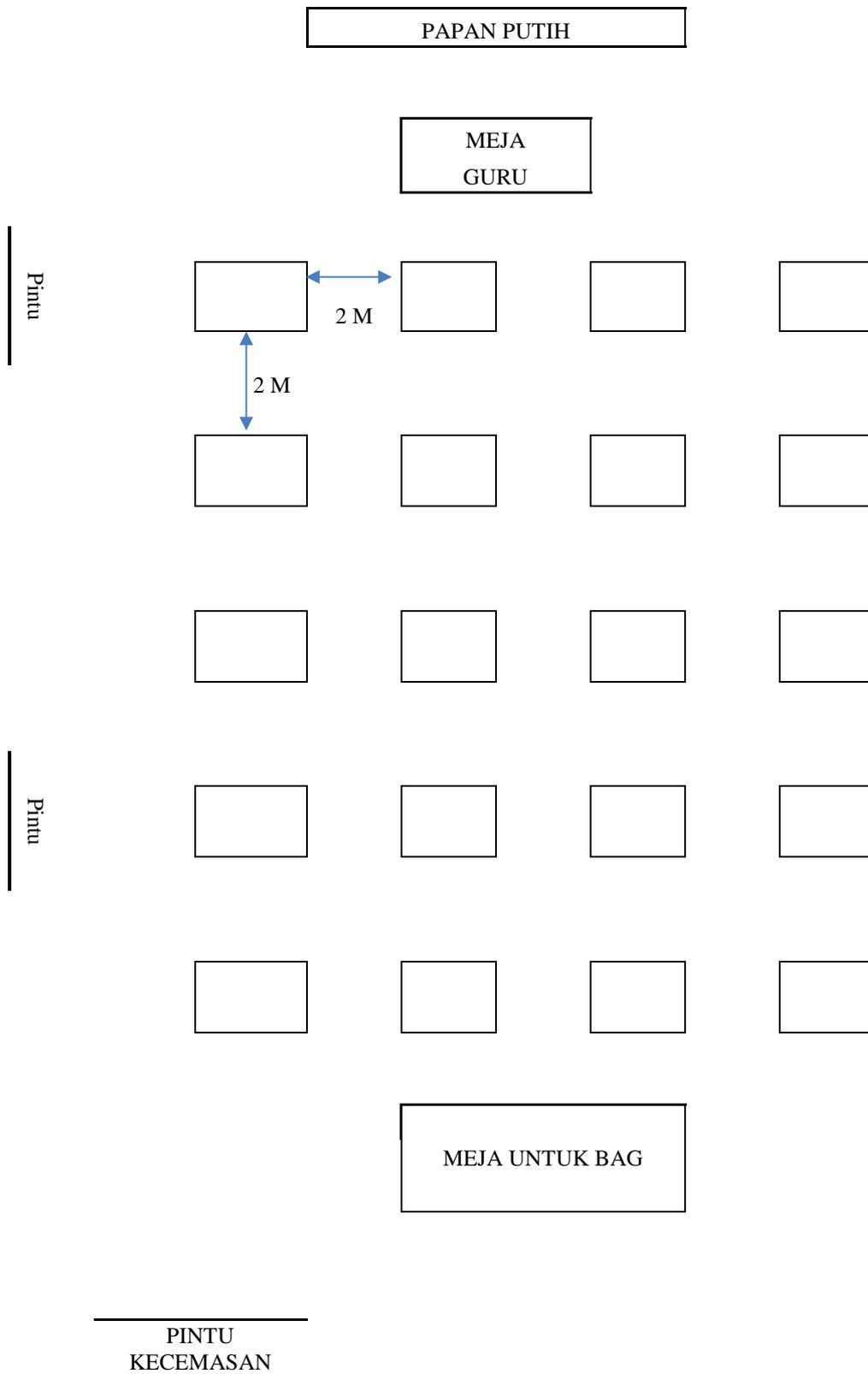
Apabila semua calon memahami dengan jelas arahan dan topic-topik, semua calon boleh memulakan penilaian.

Hentikan penilaian tersebut sebaik sahaja masa menunjukkan *30 minit* dan arahkan calon untuk berhenti menulis dan menutup buku penilaian.

Tamat **SESI KEDUA**. Para calon diarahakan untuk duduk di tempat masing-masing sehingga semua buku penilaian dipungut oleh Pengawas peperiksaan.

Setelah semua buku penilaian dipungut dan dikira (20 calon dalam setiap sesi penilaian), para calon dibenarkan untuk meninggalkan tempat penilaian oleh Pengawas peperiksaan.

Gambar rajah A: Pelan lantai



PERATURAN PEMARKAHAN BAGI Pemeriksa

PENILAIAN BAHASA MELAYU

- ✓ Peraturan pemarkahan ini adalah **SULIT** dan **Hak Cipta Penyelidik**.
- ✓ Kegunaannya khusus untuk pemeriksa yang berkenaan sahaja.
- ✓ Sebarang maklumat dalam peraturan pemarkahan ini tidak boleh dimaklumkan kepada sesiapa.
- ✓ Peraturan pemarkahan ini tidak boleh dikeluarkan dalam apa-apa jua bentuk penulisan atau percetakan.

SESI PERTAMA

Arahan Pemarkahan bagi Pemeriksa

1. Setiap bahagian mempunyai arahan pemarkahan dan skema jawapan.
2. Cara menanda soalan adalah mengikut skema jawapan yang ditentukan oleh penyelidik.
3. Markah perlulah dimasukkan mengikut soalan ke dalam lembaran *Excel* yang disediakan oleh penyelidik.

TATABAHASA

Bahagian A: Mengenal Pasti Kesalahan Tatabahasa

Arahan Pemarkahan

1. Markah bagi setiap soalan hendaklah dimasukkan ke dalam lembaran *Excel* yang disediakan.
2. Sekiranya calon membulatkan jawapan yang betul, berikan **1** markah, manakala, calon yang membulatkan jawapan yang salah atau tidak menjawab soalan diberikan **0** markah.
3. Markah keseluruhan yang diperolehi adalah **10** markah dengan menjumlahkan semua jawapan yang betul.

Skema Jawapan

1. B
2. B
3. C
4. C
5. A
6. C
7. C
8. C
9. A
10. D

Bahagian B: Melengkapkan Ayat**Arahan Pemarkahan**

1. Markah bagi setiap soalan hendaklah dimasukkan ke dalam lembaran *Excel* yang disediakan.
2. Sekiranya calon membulatkan jawapan yang betul, berikan **1** markah, manakala, calon yang membulatkan jawapan yang salah atau tidak menjawab soalan diberikan **0** markah.
3. Markah keseluruhan yang diperoleh adalah **10** markah dengan menjumlahkan semua jawapan yang betul.

Skema Jawapan

1. D
2. B
3. A
4. C
5. B
6. B
7. C
8. D
9. A
10. B

KOSA KATA

Arahan Pemarkahan

1. Markah bagi setiap soalan hendaklah dimasukkan ke dalam lembaran *Excel* yang disediakan.
2. Sekiranya calon menulis nombor kosa kata yang betul, berikan **1** markah, manakala, calon yang menulis nombor kosa kata yang salah atau tidak menjawab soalan diberikan **0** markah.
3. Markah keseluruhan yang diperolehi adalah **75** markah dengan menjumlahkan semua jawapan yang betul.

Skema Jawapan

Bahagian A	Bahagian B	Bahagian C	Bahagian D	Bahagian E
6. 6,3,2	2. 1,3,6	2. 2,4,6	2. 6,4,2	1. 4,1,6
7. 1,2,3	2. 3,4,5	2. 1,4,3	2. 1,2,3	2. 3,5,2
8. 2,4,6	3. 6,5,4	3. 2,3,5	3. 6,5,4	3. 6,2,4
9. 4,5,6	4. 2,5,4	4. 4,5,6	4. 3,2,1	4. 2,3,5
10. 5,2,1	5. 2,4,6	5. 5,3,1	5. 5,4,3	5. 4,6,2

IMBUHAN

Bahagian A: Penggunaan Imbuan Bagi Perkataan Yang Bukan daripada Bahasa Melayu

Arahan Pemarkahan

1. Markah bagi setiap soalan hendaklah dimasukkan ke dalam lembaran *Excel* yang disediakan.
2. Sekiranya calon menggunakan imbuan yang betul untuk melengkapkan ayat, berikan **1** markah, manakala, calon yang menggunakan imbuan yang salah atau tidak menjawab soalan diberikan **0** markah.
3. Markah keseluruhan yang diperolehi adalah **15** markah dengan menjumlahkan semua jawapan yang betul.

Skema Jawapan

1. menggolak
2. berbona
3. menghatakan
4. berkalog
5. mengutaskan
6. menjustakan
7. bersedus
8. menguruskan, mengurus
9. kecutipan
10. pemsaru
11. paik
12. memtarsahkan
13. kefataran
14. dihetatkan
15. Perzamdangan

Bahagian B: Penggunaan Imbuan Bagi Perkataan Bahasa Melayu

Arahan Pemarkahan

1. Markah bagi setiap soalan hendaklah dimasukkan ke dalam lembaran *Excel* yang disediakan.
2. Sekiranya calon menggunakan imbuan yang betul untuk melengkapkan ayat, berikan **1** markah, manakala, calon yang menggunakan imbuan yang salah atau tidak menjawab soalan diberikan **0** markah.
3. Markah keseluruhan yang diperoleh adalah **15** markah dengan menjumlahkan semua jawapan yang betul.

Skema Jawapan

1. diabaikan
2. membantu
3. dikeluarkan
4. melanjutkan
5. dijangkakan
6. diingatkan
7. kemenangan
8. membangkitkan
9. keburukannya
10. dikritik
11. mengganggu
12. ditabalkan
13. memperbanyak
14. dijadikan
15. membahayakan

Bahagian C: Penggunaan Imbuhan Dalam Perkataan

Arahan Pemarkahan

1. Markah bagi setiap soalan hendaklah dimasukkan ke dalam lembaran *Excel* yang disediakan.
2. Sekiranya calon menggariskan jawapan yang betul, berikan **1** markah, manakala, calon yang menggariskan jawapan yang salah, menggariskan kedua-dua jawapan atau tidak menjawab soalan diberikan **0** markah.
3. Markah keseluruhan yang diperolehi adalah **25** markah dengan menjumlahkan semua jawapan yang betul.

Skema Jawapan

1. TIDAK	6. YA	11. TIDAK	16. YA	21. YA
2. YA	7. TIDAK	12. YA	17. TIDAK	22. YA
3. YA	8. YA	13. TIDAK	18. YA	23. TIDAK
4. TIDAK	9. YA	14. YA	19. YA	24. TIDAK
5. TIDAK	10. TIDAK	15. TIDAK	20. TIDAK	25. TIDAK

SESI KEDUA

Arahan Pemarkahan bagi Pemeriksa

1. Setiap bahagian mempunyai arahan pemarkahan dan skema jawapan.
2. Cara menanda soalan adalah mengikut skema pemarkahan yang ditentukan oleh penyelidik.
3. Markah perlulah dimasukkan mengikut soalan ke dalam lembaran *Excel* yang disediakan oleh penyelidik.

EJAAN

Bahagian A: Mengenal pasti Kesalahan Ejaan

Arahan Pemarkahan

1. Markah bagi setiap soalan hendaklah dimasukkan ke dalam lembaran *Excel* yang disediakan.
2. Sekiranya calon menggariskan ejaan yang betul, berikan **1** markah, manakala, calon yang menggariskan jawapan yang salah, menggariskan kedua-dua jawapan atau tidak menjawab soalan diberikan **0** markah.
3. Markah keseluruhan yang diperoleh adalah **20** markah dengan menjumlahkan semua jawapan yang betul.

Skema Jawapan

1. empangan
2. arkitek
3. baucar
4. gaharu
5. isytihar
6. cap
7. delegasi
8. efisien
9. gembleng
10. logik
11. mengetepikan
12. nasionalisme
13. prihatin
14. peletakan
15. kalendar
16. keriting
17. lencongan
18. skala
19. subsidi
20. spesies

Bahagian B: Sebutan Ejaan yang Betul dalam Bahasa Melayu

Arahan Pemarkahan

1. Markah bagi setiap soalan hendaklah dimasukkan ke dalam lembaran *Excel* yang disediakan.
2. Sekiranya calon menggariskan perkataan yang berbunyi seperti perkataan Bahasa Melayu dengan betul, berikan **1** markah, manakala, calon yang menggariskan jawapan yang salah, menggariskan kedua-dua jawapan atau tidak menjawab soalan diberikan **0** markah.
3. Markah keseluruhan yang diperolehi adalah **18** markah dengan menjumlahkan semua jawapan yang betul.

Skema Jawapan

19. perfi
20. inter
21. aspi
22. kein
23. derha
24. trage
25. reze
26. ikh
27. dahsy
28. rung
29. gene
30. wad
31. neh
32. hap
33. efek
34. car
35. dele
36. gaha

Bahagian C: Perkataan yang tidak terdapat dalam Bahasa Melayu

Arahan Pemarkahan

1. Markah bagi setiap soalan hendaklah dimasukkan ke dalam lembaran *Excel* yang disediakan.
2. Sekiranya calon menggariskan perkataan yang tidak terdapat dalam Bahasa Melayu dengan betul, berikan **1** markah, manakala, calon yang menggariskan jawapan yang salah, menggariskan ketiga-tiga jawapan atau tidak menjawab soalan diberikan **0** markah.
3. Markah keseluruhan yang diperolehi adalah **40** markah dengan menjumlahkan semua jawapan yang betul.

Skema Jawapan

1. taya	11. katu	21. xarga	31. zebas
2. kana	12. mada	22. murus	32. banas
3. daca	13. qari	23. qaman	33. jeret
4. pata	14. vadi	24. depat	34. dempat
5. bama	15. cati	25. zerap	35. letang
6. bari	16. pagu	26. fadah	36. hulang
7. zari	17. garat	27. galar	37. ralang
8. magu	18. takar	28. taras	38. raling
9. salu	19. walam	29. daran	39. hayang
10. nagi	20. pawat	30. yeruh	40. daring

PERBENDAHARAAN BUNYI

Bahagian A: Suku Kata

Arahan Pemarkahan

1. Markah bagi setiap soalan hendaklah dimasukkan ke dalam lembaran *Excel* yang disediakan.
2. Sekiranya calon menulis jumlah suku kata yang betul, berikan **1** markah, manakala, calon yang menulis jawapan yang salah atau tidak menjawab soalan diberikan **0** markah.
3. Markah keseluruhan yang diperoleh adalah **15** markah dengan menjumlahkan semua jawapan yang betul.

Skema Jawapan

- | | |
|-------------------------|---|
| 1. se/gi | 2 |
| 2. an/ta/ra/bang/sa | 5 |
| 3. is/ta/na | 3 |
| 4. er/ti | 2 |
| 5. dwi/bu/da/ya | 4 |
| 6. mat/la/mat | 3 |
| 7. sya/rat | 2 |
| 8. pas/ca/mo/de/nis/me | 6 |
| 9. pro/ke/mer/de/ka/an | 6 |
| 10. la/po/ran | 3 |
| 11. se/ka/li/an | 4 |
| 12. pe/lak/sa/na/an/nya | 6 |
| 13. u/ni/ver/si/ti | 5 |
| 14. pe/ris/ti/wa | 4 |
| 15. ko/ku/ri/ku/lum | 5 |

Bahagian B: Berbunyi Seperti Perkataan Bahasa Melayu

Arahan Pemarkahan

1. Markah bagi setiap soalan hendaklah dimasukkan ke dalam lembaran *Excel* yang disediakan.
2. Sekiranya calon menggariskan perkataan yang berbunyi seperti perkataan Bahasa Melayu yang betul, berikan **1** markah, manakala, calon yang menggariskan jawapan yang salah, menggariskan kedua-dua jawapan atau tidak menjawab soalan diberikan **0** markah.
3. Markah keseluruhan yang diperoleh adalah **20** markah dengan menjumlahkan semua jawapan yang betul.

Skema Jawapan

1. dusa
2. daireh
3. megeh
4. rihet
5. pireksa
6. himet
7. kaideh
8. sikuleh
9. perebut
10. usek
11. goring
12. nekmet
13. senet
14. kileng
15. pemir
16. katon
17. boteng
18. adigan
19. rengkas
20. difenesi

PENULISAN

1. Markah bagi setiap soalan hendaklah dimasukkan ke dalam lembaran *Excel* yang disediakan.
2. Markah diberikan berdasarkan ESL Kandungan Pemarkahan Rubrik Profil (rujuk di bawah). Markah yang diperuntukkan adalah **20** bagi setiap kategori: Kandungan, Organisasi, Kosa Kata, Penggunaan Bahasa dan Mekanisme Tatabahasa.
3. Calon yang tidak menjawab soalan diberikan **0** markah.
4. Markah keseluruhan yang diperoleh adalah **100** markah dengan menjumlahkan semua markah mengikut kategori.

Sumber: Jacobs, H.J., Zingraf, S.A., Wormuth, D.R., & Hartfiel, V.F. Hughey. J.B. (1981). *Testing ESL composition: A practical approach*. Rowley, Massachusetts: Newbury House.

PROFIL KOMPOSISI BAHASA MELAYU

PELAJAR

TARIKH

TOPIK

KATEGORI	SKOR	KRITERIA	KOMEN
KANDUNGAN	16-20	CEMERLANG: sangat berpengetahuan * substantif * perkembangan tesis secara teliti * relevan dengan topik pilihan	
	11-15	BAIK: berpengetahuan tentang subjek * kepelbagaian mencukupi * perkembangan tesis terhad * kebanyakannya relevan dengan topik, tetapi kurang teliti	
	6-10	SEDERHANA: pengetahuan terhadap subjek terhad * sedikit bahan * perkembangan terhadap topik tidak mencukupi	
	1-5	LEMAH: tidak menunjukkan pengetahuan terhadap subjek * tidak substantive * tiada perkaitan * ATAU tidak cukup penilaian	
ORGANISASI	16-20	CEMERLANG: ungkapan fasih * idea ditulis jelas/menyokong * ringkas * disusun dengan teratur * turutan yang logik * kohesif (padu)	
	11-15	BAIK: ayat pendek * kelonggaran susunan tetapi idea utama boleh dilihat jelas * sokongan yang terhad * logik tetapi turutan tidak lengkap	
	6-10	SEDERHANA: tidak fasih * idea mengelirukan atau tiada kesinambungan * kekurangan dari segi turutan yang logik dan juga perkembangan	
	1-5	LEMAH: tiada komunikasi * tiada organisasi * ATAU tidak cukup penilaian	
KOSA KATA	16-20	CEMERLANG: kepelbagaian yang canggih * kepelbagaian pilihan dan penggunaan perkataan/ ungkapan (simpulan bahasa) yang efektif * penguasaan di dalam bentuk perkataan * penyesuaian fungsi bahasa (register)	
	11-15	BAIK: kepelbagaian yang mencukupi * sedikit kesalahan di dalam pilihan dan penggunaan perkataan/ ungkapan (simpulan bahasa) <i>tetapi maksud tidak kabur</i>	
	6-10	SEDERHANA: kepelbagaian terhad * kekerapan kesalahan di dalam pilihan dan penggunaan perkataan/ ungkapan (simpulan bahasa) * <i>maksud mengelirukan atau kabur</i>	
	1-5	LEMAH: penterjemahan * sedikit pengetahuan terhadap kosa kata Bahasa Melayu, simpulan bahasa, bentuk perkataan	
PENGUNAAN BAHASA	16-20	CEMERLANG: keberkesanan binaan yang kompleks * sedikit kesalahan dalam binaan yang kompleks * beberapa kesalahan di dalam struktur bahasa, tatabahasa, susunan ayat, artikel, kata nama dan kata depan	
	11-15	BAIK: berkesan tetapi binaan ringkas * kesialahan kecil di dalam binaan yang kompleks * beberapa kesalahan di dalam struktur bahasa, tatabahasa, susunan ayat, artikel, kata nama dan kata depan <i>tetapi maksud masih tidak kabur</i>	
	6-10	SEDERHANA: masalah besar di dalam binaan ringkas/kompleks * kekerapan kesalahan di dalam penafian, struktur ayat, tatabahasa, nombor, susunan perkataan/fungsi, artikel, kata nama, kata depan dan/atau suku kata, kesinambungan dan penghapusan ayat * <i>maksud mengelirukan atau kabur</i>	
	1-5	LEMAH: hampir tiada penguasaan di dalam peraturan pembinaan ayat * dikuasai oleh kesalahan * tiada komunikasi * ATAU tidak cukup penilaian	
MEKANISME	16-20	CEMERLANG: menunjukkan penguasaan komponen penulisan * sedikit kesalahan ejaan, tanda bacaan, tanda huruf, perenggan	
	11-15	BAIK: sesekali terdapat kesalahan ejaan, tanda bacaan, tanda huruf, perenggan <i>tetapi maksud masih tidak kabur</i>	
	6-10	SEDERHANA: kekerapan kesalahan ejaan, tanda bacaan, tanda huruf, perenggan * tulisan tangan lemah * <i>maksud mengelirukan atau kabur</i>	
	1-5	LEMAH: tiada penguasaan di dalam komponen penulisan * terdapat banyak kesalahan ejaan, tanda bacaan, tanda huruf, perenggan * tulisan tangan tidak boleh dibaca * ATAU tidak cukup penilaian	
JUMLAH SKOR		PEMBACA	KOMEN

Appendix E: Ethical Approval Letter

HUMAN ETHICS COMMITTEE

Secretary, Lynda Griffioen

Email: human-ethics@canterbury.ac.nz

Ref: 2015/48/ERHEC

17 December 2015

Marshal Masilamani

School of Teacher Education

UNIVERSITY OF CANTERBURY

Dear Marshal

Thank you for providing the revised documents in support of your application to the Educational Research Human Ethics Committee. I am very pleased to inform you that your research proposal “Influence of morphological, orthographic and phonological awareness in writing skills among bilingual Malay-English speakers” has been granted ethical approval.

Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 16 December 2015.

Should circumstances relevant to this current application change you are required to reapply for ethical approval.

If you have any questions regarding this approval, please let me know.

We wish you well for your research.

Yours sincerely



Nicola Surtees

Chair

Educational Research Human Ethics Committee

“Please note that Ethical Approval and/or Clearance relates only to the ethical elements of the relationship between the researcher, research participants and other stakeholders. The granting of approval or clearance by the Ethical Clearance Committee should not be interpreted as comment on the methodology, legality, value or any other matters relating to this research.”

F E
S

Appendix F: EPU Approval Letter



BAHAGIAN PERANCANGAN DAN PENYELIDIKAN DASAR PENDIDIKAN
KEMENTERIAN PENDIDIKAN MALAYSIA
ARAS 1-4, BLOK E-8
KOMPLEKS KERAJAAN PARCEL E
PUSAT PENTADBIRAN KERAJAAN PERSEKUTUAN
62604 PUTRAJAYA.

Telefon: 03-88846591
Faks : 03-88846579

Ruj. Kami : KPMS.600-3/2/3 Jld 14 (24)
Tarikh : 10 Mac 2016

Ketua Pengarah
Seksyen Ekonomi Makro
Unit Perancangan Ekonomi
Jabatan Perdana Menteri
Blok B5 Aras 4
Kompleks Jabatan Perdana Menteri
Pusat Pentadbiran Kerajaan Persekutuan
62502 PUTRAJAYA
(u.p. Pn. Munirah Bt. Abd. Manan)

Tuan,

Permohonan Untuk Menjalankan Penyelidikan di Malaysia
Nama: MARSHAL BRIEWN

Dengan hormatnya saya merujuk kepada perkara di atas.

2. Adalah saya diarahkan memaklumkan bahawa permohonan tuan untuk menjalankan kajian bertajuk:

"Influence of Morphological, Orthographic and Phonological Awareness in Writing Skills among Bilingual Malay-English Speakers" diluluskan dengan syarat.

3. Bersama-sama ini disertakan ulasan Bahagian ini ke atas cadangan penyelidikan yang dikemukakan.

Sekian dimaklumkan, terima kasih.

" BERKHIDMAT UNTUK NEGARA "

Saya yang menurut perintah,

(DR. MAIMUNAH BT MUDA)

Ketua Unit
Sektor Penyelidikan Dan Penilaian
Bahagian Perancangan dan Penyelidikan Dasar Pendidikan
b.p. Ketua Setiausaha
Kementerian Pendidikan Malaysia

Salinan Diakui Asal Dan Sah


.....
W/o Ketua Pengarah
Unit Perancang Ekonomi
Jabatan Perdana Menteri
AZRAL IZWAN BIN MAZLAN
Ketua Penolong Pengarah
Seksyen Ekonomi Makro
Unit Perancang Ekonomi
Jabatan Perdana Menteri

Appendix G: Background Questionnaire

Background Questionnaire

Please answer the questions below

Section 1: Personal Information

Full Name: _____

Age (in years *e.g.*, 19 years): _____

Gender (*check ✓ only one*):

Male

Female

Spoken language at home: _____

Your last qualification before entering this programme (*e.g.*, *Diploma*): _____

Where did you start learning English formally (*e.g.*, *school*)?

Section 2: Knowledge of *Jawi*

Have you been taught in *Jawi* when you were at school?

Yes

No

If your answer is **YES**, complete the two short passages below.

Appendix H: Information Sheet for Research Participants

College of Education

School of Teacher Education

Mobile Malaysia: +6012-5797710

E-mail: marshal.masilamani@pg.canterbury.ac.nz

Date: _____



Influence of Morphological, Orthographic and Phonological Awareness in Writing Skills among Bilingual Malay-English Speakers

Information Sheet for Research Participants

My name is Marshal Briewin Masilamani, a PhD student at the College of Education, University of Canterbury and I am working under the supervision of Professor John Everatt. I am researching the influence of an understanding of various types of language features in writing skills among bilingual Malay-English speakers. The aim of the work is to support ideas for improving teaching strategies.

I would like to invite you to participate in my present study. If you agree to take part, you will be asked to do the following:

- Complete a background questionnaire, which will comprise of information used to describe the research participants as a whole (typical of all research) and will ask simple questions including English language learning background in order to better understand how this might influence performance on the following language tasks – all information will be treated as grouped data in research reports so no individual information will ever be identified.
- Language experience assessment. This will involve completing short tasks in Malay (Bahasa Melayu) and in English that assess the ability to recognise: (i). grammar errors in writing, (ii). how words are formed or related (e.g., how organise-organisation are related), (iii). how words are spelled (e.g., which is the correct spelling in munk or monk), (iv). how words are spoken or verbalised (e.g., does have rhyme with save when spoken), (v). vocabulary (in order to help me assess background experience of a language), and (vi). free writing (in order to assess writing experience). All tasks will be clearly explained with examples and all data from the tasks treated as grouped data.

The tasks will be carried out after class hours with each task taking approximately 20 to 30 minutes. Assessment will not affect the grade of your Malay (*Bahasa Melayu*) and English course, and participation is purely voluntary. This assessment is being carried out purely for the purpose of this project and your grade will not be affected in any way. To avoid tiredness when completing the tasks, assessment will be completed over five short sessions. The schedule for these will be according to your availability.

Please be assured that participation in this study is voluntary. If you do participate, you have the right to withdraw from the study at any time without penalty. If you withdraw, I will do my best to remove any information relating to you, provided this practically achievable.

I will take particular care to ensure the confidentiality of all data gathered for this study. I will also take care to ensure your anonymity in publications of the findings. All the data will be securely stored in

password protected facilities and locked storage at the University of Canterbury for ten years following the study. It will then be destroyed.

The results of this research may be used to revise and improve programmes for teaching and learning English as a Second Language. The results will also be reported internationally at conferences and in language journals. The Matriculation Centre and you will receive a report of the study.

If you have any questions about the study you may contact me via the contact details below or in the header of this letter; or you can contact my senior supervisor: Professor John Everatt at john.everatt@canterbury.ac.nz, Ph: +643 3642987 ext. 4003 or Roziana Binti Ahmad Rizan, Head of Language Unit, Kuala Pilah Matriculation Centre, Negeri Sembilan, Malaysia at roziana@kmns.matrik.edu.my, Ph: +606 4841821.

If you have a complaint about the study, you may contact The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch, New Zealand, human-ethics@canterbury.ac.nz.

If you agree to participate in this study, please complete the attached consent form and return it to your class lecturer in the envelope provided.

I am looking forward to working with you and thank you in advance for your contributions.

Note: Malay (*Bahasa Melayu*) version of this information sheet is also attached separately for your convenience.

Marshal Briewin Masilamani

marshal.masilamani@pg.canterbury.ac.nz

Mobile Malaysia: +6012-5797710

Appendix I: Consent Form for Research Participants

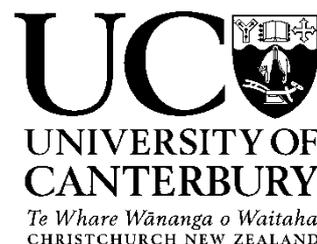
College of Education

School of Teacher Education

Mobile Malaysia: +6012-5797710

E-mail: marshal.masilamani@pg.canterbury.ac.nz

Date: _____



Influence of Morphological, Orthographic and Phonological Awareness in Writing Skills among Bilingual Malay-English Speakers

Consent Form for Research Participants

Marshal Briewin Masilamani has briefed me pertaining to the study that he is working on this year.

- I have been given a full explanation of this project and have been given an opportunity to ask questions.
- I understand what will be required of me if I agree to take part in this project.
- I understand that my participation is voluntary and that I may withdraw at any stage without penalty.
- I understand that any information or opinions I provide will be kept confidential to the researcher and that any published or reported results will not identify me.
- I understand that all data collected for this study will be kept in locked and secure facilities at the University of Canterbury and will be destroyed after ten years.
- I understand that the Matriculation Center and I will receive a report on the findings of this study.
- I understand that if I any require further information I can contact Professor John Everatt at john.everatt@canterbury.ac.nz, Ph: +643 3642987 ext. 4003 or Roziana Binti Ahmad Rizan, Head of Language Unit, Kuala Pilah Matriculation Centre, Negeri Sembilan, Malaysia at roziana@kmns.matrik.edu.my, Ph: +606 4841821.
- If I have any complaints, I can contact The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch, New Zealand. Email: human-ethics@canterbury.ac.nz.

By signing below, I agree to participate in this research project.

Name : _____

Date : _____

Signature : _____

Email address : _____

Mobile number : _____

Please return this completed consent form to your class lecturer in the envelope provided.

Note: Malay (*Bahasa Melayu*) version of this consent form is also attached separately for your convenience. You can sign one of them or both.

Appendix J: Information Sheet for the Director

College of Education

School of Teacher Education

Mobile Malaysia: +6012-5797710

E-mail: marshal.masilamani@pg.canterbury.ac.nz

Date: _____



Influence of Morphological, Orthographic and Phonological Awareness in Writing Skills among Bilingual Malay-English Speakers

Information Sheet for the Director of the Negeri Sembilan Matriculation Center

My name is Marshal Briewin Masilamani, a PhD student at the College of Education, University of Canterbury and I am working under the supervision of Professor John Everatt. I am researching the influence of an understanding of various types of language features in writing skills among bilingual Malay-English speakers. The aim of the work is to support ideas for improving teaching strategies.

I would like to invite your tutors and students to participate in my present study. If you agree to allow your tutors and students to take part, they will be asked to do the following:

Students

- Complete a background questionnaire, which will comprise of information used to describe the research participants as a whole (typical of all research) and will ask simple questions including English language learning background in order to better understand how this might influence performance on the following language tasks – all information will be treated as grouped data in research reports so no individual information will ever be identified.
- Language experience assessment. This will involve completing short tasks in Malay (Bahasa Melayu) and in English that assess the ability to recognise: (i). grammar errors in writing, (ii). how words are formed or related (e.g., how organise-organisation are related), (iii). how words are spelled (e.g., which is the correct spelling in munk or monk), (iv). how words are spoken or verbalised (e.g., does have rhyme with save when spoken), (v). vocabulary (in order to help me assess background experience of a language), and (vi). free writing (in order to assess writing experience). All tasks will be clearly explained with examples and all data from the tasks treated as grouped data. Language assessment: grammar, morphology, orthography, phonology, vocabulary and writing (Malay and English).

Lecturers

- The researcher will have a meeting with the lecturers on how to assist the researcher in distributing the background questionnaire and the language assessments. In the meeting, the researcher will clearly explain the procedure and the confidentiality of this project.

The tasks will be carried out after class hours with each task taking approximately 20 to 30 minutes. Assessment will not affect the grade of your students' Malay and English course, and participation is purely voluntary. This assessment is being carried out purely for the purpose of this project and their grade will not be affected in any way. To avoid tiredness when completing the tasks, the assessment will be completed over five short sessions. The schedule for these will be according to the students' availability.

Please be assured that participation in this study is voluntary. If they do participate, they have the right to withdraw from the study at any time without penalty. If they withdraw, I will do my best to remove any information relating to them, provided this practically achievable.

I will take particular care to ensure the confidentiality of all data gathered for this study. I will also take care to ensure their anonymity in publications of the findings. All the data will be securely stored in password protected facilities and locked storage at the University of Canterbury for ten years following the study. It will then be destroyed.

The results of this research may be used to revise and improve programmes for teaching and learning English as a Second Language. The results will also be reported internationally at conferences and in language journals. The Matriculation Centre will receive a report of the study.

If you have any questions about the study you may contact me via the contact details below or in the header of this letter; or you can contact my senior supervisor: Professor John Everatt at john.everatt@canterbury.ac.nz, Ph: +643 3642987 ext. 4003.

If you have a complaint about the study, you may contact The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch, New Zealand, human-ethics@canterbury.ac.nz.

I am looking forward to working with you and thank you in advance for your contributions.

Marshal Briewin Masilamani

marshal.masilamani@pg.canterbury.ac.nz

Mobile Malaysia: +6012-5797710

Appendix K: Consent Form for the Director

College of Education

School of Teacher Education

Mobile Malaysia: +6012-5797710

E-mail: marshal.masilamani@pg.canterbury.ac.nz

Date: _____



Influence of Morphological, Orthographic and Phonological Awareness in Writing Skills among Bilingual Malay-English Speakers

Consent Form for the Director of the Negeri Sembilan Matriculation Center

Marshal Briewin Masilamani has briefed me pertaining to the study that he is working on this year.

- I have been given a full explanation of this project and have been given an opportunity to ask questions.
- I understand what will be required of me if I agree to take part in this project.
- I understand that my participation is voluntary and that I may withdraw at any stage without penalty.
- I understand that any information or opinions I provide will be kept confidential to the researcher and that any published or reported results will not identify me.
- I understand that all data collected for this study will be kept in locked and secure facilities at the University of Canterbury and will be destroyed after ten years.
- I understand that the Matriculation Center and I will receive a report on the findings of this study.
- I understand that if I require any further information I can contact Professor John Everatt at john.everatt@canterbury.ac.nz, Ph: +643 3642987 ext. 4003.
- If I have any complaints, I can contact The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch, New Zealand, human-ethics@canterbury.ac.nz.

By signing below, I agree to participate in this research project.

Name : _____

Date : _____

Signature : _____

Email address : _____

Mobile number : _____

Please return this completed consent form to Marshal Briewin Masilamani or email a scanned copy to marshal.masilamani@pg.canterbury.ac.nz.

Appendix L: Information Sheet for Head of Language Unit

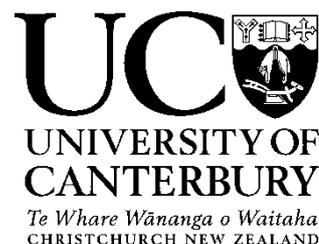
College of Education

School of Teacher Education

Mobile Malaysia: +6012-5797710

E-mail: marshal.masilamani@pg.canterbury.ac.nz

Date: _____



Influence of Morphological, Orthographic and Phonological Awareness in Writing Skills among Bilingual Malay-English Speakers

Information Sheet for Head of Language Unit

My name is Marshal Briewin Masilamani, a PhD student at the College of Education, University of Canterbury and I am working under the supervision of Professor John Everatt. I am researching the influence of an understanding of various types of language features in writing skills among bilingual Malay-English speakers. The aim of the work is to support ideas for improving teaching strategies.

I would like to invite your tutors and students to participate in my present study. If you agree to allow your tutors and students to take part, they will be asked to do the following:

Students

- Complete a background questionnaire, which will comprise of information used to describe the research participants as a whole (typical of all research) and will ask simple questions including English language learning background in order to better understand how this might influence performance on the following language tasks – all information will be treated as grouped data in research reports so no individual information will ever be identified.
- Language experience assessment. This will involve completing short tasks in Malay (Bahasa Melayu) and in English that assess the ability to recognise: (i). grammar errors in writing, (ii). how words are formed or related (e.g., how organise-organisation are related), (iii). how words are spelled (e.g., which is the correct spelling in munk or monk), (iv). how words are spoken or verbalised (e.g., does have rhyme with save when spoken), (v). vocabulary (in order to help me assess background experience of a language), and (vi). free writing (in order to assess writing experience). All tasks will be clearly explained with examples and all data from the tasks treated as grouped data. Language assessment: grammar, morphology, orthography, phonology, vocabulary and writing (Malay and English).

Lecturers

- The researcher will have a meeting with the lecturers on how to assist the researcher in distributing the background questionnaire and the language assessments. In the meeting, the researcher will clearly explain the procedure and the confidentiality of this project.

The tasks will be carried out after class hours with each task taking approximately 20 to 30 minutes. Assessment will not affect the grade of your students' Malay and English course, and participation is purely voluntary. This assessment is being carried out purely for the purpose of this project and their grade will not be affected in any way. To avoid tiredness when completing the tasks, assessment will be completed over five short sessions. The schedule for these will be according to the students' availability.

Please be assured that participation in this study is voluntary. If they do participate, they have the right to withdraw from the study at any time without penalty. If they withdraw, I will do my best to remove any information relating to them, provided this practically achievable.

I will take particular care to ensure the confidentiality of all data gathered for this study. I will also take care to ensure their anonymity in publications of the findings. All the data will be securely stored in password protected facilities and locked storage at the University of Canterbury for ten years following the study. It will then be destroyed.

The results of this research may be used to revise and improve programmes for teaching and learning English as a Second Language. The results will also be reported internationally at conferences and in language journals. The Matriculation Centre will receive a report of the study.

If you have any questions about the study you may contact me via the contact details below or in the header of this letter; or you can contact my senior: Professor John Everatt at john.everatt@canterbury.ac.nz, Ph: +643 3642987 ext. 4003.

If you have a complaint about the study, you may contact The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch, New Zealand, human-ethics@canterbury.ac.nz.

I am looking forward to working with you and thank you in advance for your contributions.

Marshal Briewin Masilamani

marshal.masilamani@pg.canterbury.ac.nz

Mobile Malaysia: +6012-5797710

Appendix M: Consent Form for Head of Language Unit

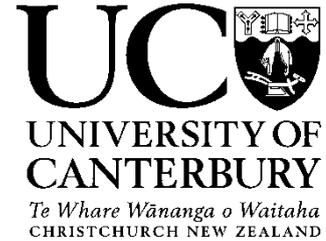
College of Education

School of Teacher Education

Mobile Malaysia: +6012-5797710

E-mail: marshal.masilamani@pg.canterbury.ac.nz

Date: _____



Influence of Morphological, Orthographic and Phonological Awareness in Writing Skills among Bilingual Malay-English Speakers

Consent Form for Head of Language Unit

Marshal Briewin Masilamani has briefed me pertaining to the study that he is working on this year.

- I have been given a full explanation of this project and have been given an opportunity to ask questions.
- I understand what will be required of me if I agree to take part in this project.
- I understand that my participation is voluntary and that I may withdraw at any stage without penalty.
- I understand that any information or opinions I provide will be kept confidential to the researcher and that any published or reported results will not identify me.
- I understand that all data collected for this study will be kept in locked and secure facilities at the University of Canterbury and will be destroyed after ten years.
- I understand that the Matriculation Center and I will receive a report on the findings of this study.
- I understand that if I require any further information I can contact Professor John Everatt at john.everatt@canterbury.ac.nz, Ph: +643 3642987 ext. 4003.
- If I have any complaints, I can contact The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch, New Zealand, human-ethics@canterbury.ac.nz.

By signing below, I agree to participate in this research project.

Name : _____

Date : _____

Signature : _____

Email address : _____

Mobile number : _____

Please return this completed consent form to Marshal Briewin Masilamani or email a scanned copy to marshal.masilamani@pg.canterbury.ac.nz.

Appendix N: Information Sheet for Lecturer

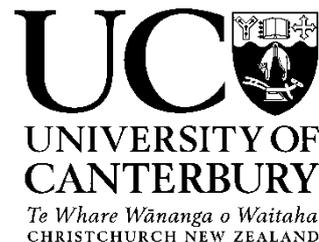
College of Education

School of Teacher Education

Mobile Malaysia: +6012-5797710

E-mail: marshal.masilamani@pg.canterbury.ac.nz

Date: _____



Influence of Morphological, Orthographic and Phonological Awareness in Writing Skills among Bilingual Malay-English Speakers

Information Sheet for Lecturer

My name is Marshal Briewin Masilamani, a PhD student at the College of Education, University of Canterbury and I am working under the supervision of Professor John Everatt. I am researching the influence of an understanding of various types of language features in writing skills among bilingual Malay-English speakers. The aim of the work is to support ideas for improving teaching strategies.

I would like to invite you to assist and participate in my present study. If you agree to take part, you will be asked to do the following:

- Distribute a background questionnaire to your students which will comprise of information used to describe the research participants as a whole (typical of all research) and will ask simple questions including English language learning background in order to better understand how this might influence performance on the following language tasks – all information will be treated as grouped data in research reports so no individual information will ever be identified.
- Assist in the language assessments: grammar, morphology, orthography, phonology, vocabulary and writing (Malay and English). This will involve students completing short tasks in Malay (Bahasa Melayu) and in English that assess the ability to recognise: (i). grammar errors in writing, (ii). how words are formed or related (e.g., how organise-organisation are related), (iii). how words are spelled (e.g., which is the correct spelling in munk or monk), (iv). how words are spoken or verbalised (e.g., does have rhyme with save when spoken), (v). vocabulary (in order to help me assess background experience of a language), and (vi). free writing (in order to assess writing experience). All tasks will be clearly explained with examples and all data from the tasks treated as grouped data.

The tasks will be carried out after class hours with each task taking approximately 20 to 30 minutes. Assessment will not affect the grade of your students' Malay and English course, and participation is purely voluntary. This assessment is being carried out purely for the purpose of this project and their grade will not be affected in any way. To avoid tiredness when completing the tasks, assessment will be completed over five short sessions. The schedule for these will be according to the students' availability.

Please note that participation in this study is voluntary. If your students do participate, they have the right to withdraw from the study at any time without penalty. If they withdraw, I will do my best to remove any information relating to them, provided this practically achievable.

I will take particular care to ensure the confidentiality of all data gathered for this study. I will also take care to ensure their anonymity in publications of the findings. All the data will be securely stored in

password protected facilities and locked storage at the University of Canterbury for ten years following the study. It will then be destroyed.

The results of this research may be used to revise and improve programmes for teaching and learning English as a Second Language. The results will also be reported internationally at conferences and in language journals. The Matriculation Centre will receive a report of the study.

If you have any questions about the study you may contact my senior supervisor: Professor John Everatt at john.everatt@canterbury.ac.nz, Ph: +643 3642987 ext. 4003 or Roziana Binti Ahmad Rizan, Head of Language Unit, Kuala Pilah Matriculation Centre, Negeri Sembilan, Malaysia at roziana@kmns.matrik.edu.my, Ph: +606 4841821.

If you have a complaint about the study, you may contact The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch, New Zealand, human-ethics@canterbury.ac.nz.

I am looking forward to working with you and thank you in advance for your contributions.

Marshal Briewin Masilamani

marshal.masilamani@pg.canterbury.ac.nz

Mobile Malaysia: +6012-5797710

Appendix O: Consent Form for Tutor/Lecturer

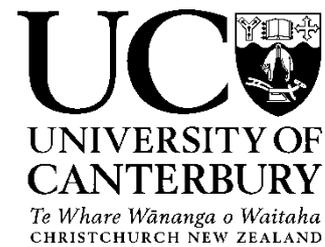
College of Education

School of Teacher Education

Mobile Malaysia: +6012-5797710

E-mail: marshal.masilamani@pg.canterbury.ac.nz

Date: _____



Influence of Morphological, Orthographic and Phonological Awareness in Writing Skills among Bilingual Malay-English Speakers

Consent Form for Tutor/ Lecturer

Marshal Briewin Masilamani has briefed me pertaining to the study that he is working on this year.

- I have been given a full explanation of this project and have been given an opportunity to ask questions.
- I understand what will be required of me if I agree to take part in this project.
- I understand that my participation is voluntary and that I may withdraw at any stage without penalty.
- I understand that any information or opinions I provide will be kept confidential to the researcher and that any published or reported results will not identify me.
- I understand that all data collected for this study will be kept in locked and secure facilities at the University of Canterbury and will be destroyed after ten years.
- I understand that the Matriculation Center and I will receive a report on the findings of this study.
- I understand that if I require any further information I can contact Professor John Everatt at john.everatt@canterbury.ac.nz, Ph: +643 3642987 ext. 4003 or Roziana Binti Ahmad Rizan, Head of Language Unit, Kuala Pilah Matriculation Centre, Negeri Sembilan, Malaysia at roziana@kmns.matrik.edu.my, Ph: +606 4841821.
- If I have any complaints, I can contact The Chair, Educational Research Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch, New Zealand, human-ethics@canterbury.ac.nz.

By signing below, I agree to participate in this research project.

Name : _____

Date : _____

Signature : _____

Email address : _____

Mobile number : _____

Please return this completed consent form to Marshal Briewin Masilamani or email a scanned copy to marshal.masilamani@pg.canterbury.ac.nz.

Appendix P: MUET Band Description

The following is a band description indicating MUET candidates' level of English proficiency that tests the four skills, namely Listening, Speaking, Reading and Writing. This band description has been developed to help candidates and other stakeholders to understand the level of performance required to attain a particular band score in each of the criterion areas.

AGGREGATED SCORE	BAND	USER	LISTENING ABILITY	COMMUNICATIVE ABILITY	COMPREHENSION	TASK PERFORMANCE
260 - 300	6	Excellent user	Able to understand and convey information accurately	Highly expressive, fluent, accurate and appropriate language; hardly any inaccuracies	Very good understanding of language and contexts	Language always accurate and able to link ideas very effectively; uses wide variety of sentence structures effectively with varied vocabulary
220 - 259	5	Very good user	Able to understand and convey most information with minimal errors	Expressive, fluent, accurate and appropriate language but with minor inaccuracies	Good understanding of language and contexts	Language mostly accurate with few minor errors and able to link ideas effectively; uses some variety of sentence structures with appropriate vocabulary
180 - 219	4	Good user	Able to understand the information but lacks the ability to convey the message accurately	Satisfactorily expressive and fluent, appropriate language but with occasional inaccuracies	Satisfactory understanding of language and contexts	Language fairly accurate with some minor errors and able to link ideas satisfactorily; tendency to use simple sentence structures and vocabulary
140 - 179	3	Modest user	Understand information but makes grammatical and spelling errors when conveying information	Modestly expressive and fluent, appropriate language but with noticeable inaccuracies	Modest understanding of language and contexts	Language sometimes accurate with some errors and attempts to link ideas; limited variety of sentence structures and vocabulary
100 - 139	2	Limited user	May have understood information but makes grammatical and spelling errors resulting in inaccuracies when conveying information	Lacks expressiveness, fluency and appropriacy: inaccurate use of the language resulting in breakdown in communication	Limited understanding of language and contexts	Language largely inaccurate with many errors and hardly any attempt to link ideas; hardly any variety of sentence structures and vocabulary
Below 100	1	Extremely limited user	Have difficulties understanding most information and makes grammatical and spelling errors resulting in distortion	Unable to use language to express ideas: inaccurate use of the language resulting in frequent breakdown in communication	Little or poor understanding of language and contexts	Language grossly inaccurate with serious errors and no attempt at linking ideas; no variety of sentence structures at all and uses inappropriate vocabulary