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The Use of Adverbials in the Verbal Production of Malay ESL Learners: A Processability Approach

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ABSTRACT

This study investigates the development of verbal usage of adverbials by Malay ESL learners at the tertiary level. It aims to find out the developmental differences between low and intermediate learners' acquisition of adverbials. Using Processability Theory (Pienemann, 1998; 2005) and taxanomy of adverbials (Celce-Murcia & Larsen-Freeman, 1999) as the frameworks, this study explains the extent to which Malay ESL learners at the tertiary level have developed their use of English adverbials. For data collection purposes, a picture-cued task was administered on 60 Malay ESL students in which they were required to elicit each process in each picture. The results indicate that, in terms of their use of adverbials, most of the Malay ESL students from both proficiency levels were considered to have reached Stage 6 of the Processability Theory developmental stages and only a number of elementary level students were found to have only reached Level 2. The findings suggest that ESL practitioners should follow the developmental routes suggested by the Processability Theory in teaching grammar components to students.

Keywords: L2 processing, adverbials, Malay ESL learners, tertiary level, verbal production

1.0 INTRODUCTION

It is suggested that in the process of learning a second language, there is a developmental sequence of every linguistic feature (Pienemann, 1998) and the sequence that L2 learners follow is not substantially affected by classroom instruction although the progress may be facilitated by form-focused instruction (Lightbown & Spada, 2000). Lightbown and Spada further explicate that some common stages in the acquisition of morphological and syntactical forms exist throughout the language learning process.

Although L2 learners experience common stages in their process of acquisition, Towell and Hawkins (1994) state that the rate of attainment in acquisition process is different as they mention that 'L2 learners typically acquire second languages slowly, with some effort and incompletely' (p.4). This suggests that every L2 learners process of acquiring language is different from one another.

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On another note, the importance of proficiency level as variables has often been neglected in the research (Neary-Sundquist, 2008). She further elaborates that researchers should not assume that learners at different proficiency levels will interact with any language task in the same ways. Past studies such as Ejzenberg (2000) and Yule and Macdonald (1990) found that there were differences in the higher and lower proficient learners based on different types of language tasks. The rationale of focusing on proficiency level is also discussed by Stern (1991). He postulates that it has been an issue for language teachers to develop a way to assist the language learners to achieve an appropriate level of proficiency which is based on the learners' estimation and to help them being stranded at low level (1991). Therefore, the current study highlights the difference of the acquisition in terms of ESL learners' proficiency levels.

It is also important to note that cross-linguistics influence exists in the acquisition process in which learners transfer L1 properties in their L2 production. This is one of the reasons that may account for why some features of grammatical acquisition in a particular group of English L2 learners are different from another group of L2 learners.

In Malaysian ESL context, local students at the tertiary institutions have gone through a minimum of eleven years of formal English language instruction at their primary and secondary levels. These 11 years learning should have practically produced many proficient English language users, however, that is not often the case in Malaysia. Mohd Zain and Rafik-Galea (2010) state that all students registered at Malaysian public universities (with the exception of International Islamic University Malaysia (IIUM) are required to enroll in English language proficiency courses because it is learned that they have inadequate English language proficiency. Besides that, it is also identified that the study on the acquisition of adverbials has been given less focus and it is mainly studied through participants' writing comprehension or error analysis (e.g. Zhang, 2010 and Behjat & Sadighi, 2011) but verbal data has been rarely used. Past literature suggests that most of the studies in the acquisition of grammar especially from Processability Theory point of view focused on the aspect of verb or English tense acquisition e.g. Shin (2007), Hsieh (2009), Ali Muftah and Wong (2011) and Mlambo (2012).

Although studies on the acquisition of English adverbials has not been investigated by many, Celce-Murcia and Larsen-Freeman (1999) assert that the adverbial is an area of the English language which is considered to have morphologically the most diverse grammatical structures. Apart from being less popular, adverbials tend to be investigated from error analysis perspective. Most of the error analysis studies on ESL learners highlight that the reason for the learners' inability to use grammatical items correctly was due to cross linguistics influence or first language interference (e.g. Jalaluddin, Mat Awal, N. & Abu Bakar, 2008; Ghabool, Mariadass & Kashef, 2012). However, there is inadequate explanation provided in terms of the extent to which learners' development of certain grammatical features (i.e. adverbials) affects their use of adverbials in oral or written comprehension. Therefore, there is a need to focus on adverbials as it is considered as a less explored area in L2 English grammatical acquisition.

This study thus identifies the development of verbal usage of adverbials by specifically looking at low and intermediate Malay ESL learners at the tertiary level using Processability Theory (Pienemann, 1998, 2005) and the taxonomy of adverbials as proposed by Celce-Murcia and Larsen-Freeman (1999). Lightbown and Spada (2006) postulate that order of acquisition remains the same

even though learners have different backgrounds. Comparisons could allow understanding the differences in the acquisition of the target forms between the two groups. This in turn will assist in developing pedagogical techniques to teach ESL learners of different proficiency levels to learn the items. It specifically aims to (i) find out the frequency of the use of adverbials by Malay ESL learners at the tertiary level and (ii) identify the differences between low and intermediate Malay ESL learners' acquisition of adverbials.

REVIEW OF LITERATURE

2.1 SLA Developmental Sequence

Research grounded by the framework of general SLA provides explanation on how acquisition takes place. One of the major goals of SLA study is to describe learner language and explain how it works as a system (Ellis, 2008). Order of acquisition and sequence development are aspects in learner language that have received much attention.

Pienemann (1998) postulates that in the process of acquiring L2, the learners go through the same developmental sequences in which these sequences are maintained despite the different order they are taught. In the same vein, Lightbown and Spada (2006) emphasize that L2 learners experience the same order of acquisition although they come from different backgrounds and learning environments. This is further explained by Pienemann's (1998) Processability Theory in which he claims that second language learning is a process of developing a routine process. Pienemann refers to this development as learner-internal which means learners are only able to acquire L2 structures that they are able to process.

Although L2 learners experience different learning settings or instructions, the acquisition sequence does not change and they will undergo the same developmental stages. Pienemann (1998) further explicates that these learners' interlanguage grammar will be stable at certain developmental points when it is assessed through 'emergence criterion'. It is also important for the learners to gradually develop L2 processing skills especially when they start to encounter a more complex operation.

2.2 Theoretical Background

2.2.1 Processability Theory

This research is grounded in the Processability Theory introduced by Pienemann (1998, 2005). Pienemann asserts that learners restructure their L2 system based on what they are capable of at their development stage. Processability theory is a universal psycholinguistics matrix, or specifically a hierarchy of language processability (Pienemann, 2008) According to Pienemann (2005a), one of the main aims of the theory is to hypothesise a universal hierarchy of processing resources in which it attempts to find the requirement of the specific procedural skills needed for the target language. This theory basically allows one to predict L2 linguistic forms which have developed in language production and comprehension across languages (Pienemann, 2008). In this study, Processability

theory is used to assess the outcome of the acquisition of adverbials between elementary and intermediate L2 English learners at the tertiary level.

2.2.2 Key Constructs of Processability Theory

i. The Processability Hierarchy

Pienemann (1998, 2005) outlines six stages of developmental sequences or processing procedures applied to English by focusing on "the transfer of grammatical information within and between the phrases of a sentence" (Pienemann, 2008: p.13). To further illustrate this notion, in the sentence *Ahmad eats an apple*, the grammatical information is carried by *Ahmad* and *eats* which is known as 'subject verb agreement'. It is the function of the language processor to check whether *Ahmad* and *eats* contain the same grammatical information. Therefore, in order to process this, the learners must have developed a procedure for building noun and verb phrases as in *Ahmad* and *eats an apple*. Besides that, the learners must have developed a procedure for combining these phrases to build a sentence. If a learner has yet to develop a fully functioning sentence procedure, any mismatch in the sentence will not be identified. The following illustrates the processing procedures following Pienemann (1998):

1. no procedure
2. category procedure
3. noun phrase procedure
4. verb phrase procedure
5. sentence procedure
6. subordinate clause procedure

In order to explain Pienemann's (1998, 2005) processability hierarchy, the earlier sentence *Ahmad eats apples* and another sentence, *Five girls went hiking* are used to further demonstrate the process of each stage. In the phrases *Ahmad* and *eats an apple*, the processing procedures check whether the grammatical information between a NP and a VP in the sentence matches. This only happens when both phrases are combined in order to become a sentence. However, in the latter example, *five girls* contains grammatical information known as 'plural' form which is carried by the word *five* and in the noun *girls*. According to Pienemann (2008), "in language processing, these two pieces of information are compared when the noun phrase is assembled by the Noun Phrase- procedure' (p.14). In the latter sentence, the grammatical information pieces between numeral *five* and the NP *girls went hiking* are a match. This process is known as 'information matching' or 'feature unification' as termed in Lexical Functional Grammar (LFG) (Bresnan, 2001).

2.2.3 Lexical Functional Grammar as the Basis of Processability Theory

Processability Theory was modelled based on Lexical Functional Grammar (LFG) framework by Bresnan (1982). LFG is an important premise to PT as the processing perspective of PT is based on LFG mechanism of feature matching or unification as discussed by Pienemann (1998):

LFG focuses on three key features of procedural account of language generation, namely (i) the assumption that grammars are lexically driven and (ii) the assumption that functional annotations of phrases assume the status of primitives and (iii) the mechanism of feature matching (p.14).

The concept of feature matching in LFG is the idea that features and functions coming from different places in the tree must be compatible with one another (Carnie, 2013). In PT, feature matching offers explanations for the discrepancy of the actual order of events and the surface order (e.g. *Before Sharifah went to her school, she prepared breakfast for her brothers*) or to the need for information produced earlier to be used later in the same sentence (Pienemann, 2005, p.5).

LFG consists of four main components which are the lexicon, c-structure (constituent), f-structure (functional) and a-structure (argument). Lexicon is the lexical entries of the words that compose the sentence. C-structure generates "surface structure" constituents and c-structure relationships. F-structure is a list of those pieces of grammatical information needed to semantically interpret the sentence which is generated by c-structure and the lexicon. (Pienemann, 2005, p.16). A-structure denotes the argument roles that are needed for a given predicate (Bonilla, 2012, p.8). LFG notions which are relevant to PT will be further explained and illustrated in the latter section. Figure 2.1 shows an illustration of lexical entries for *Ahmad eats an apple*.

Each lemma includes the information grammatical roles of the arguments and also diacritic features such as tense. Based on the figure above, specific values are given to each feature. For example, TENSE is assigned with 'present' value. Figure 2.2 shows phrase structure rules which generate c-structure.

S → NPSUBJ VP

NP → N

VP → V NPOBJ

NP → Det N

Figure 2.1 Lexical Entry for *Ahmad eats an apple*

Ahmad	N PRED	=Ahmad
eats	V PRED TENSE SUBJ PERSON SUBJ NUM	=eats (SUBJ, OBJ) =present =3 =SG
an	DET SPEC	=an
apple	N PRED	=an

Figure 2.2 Phrase Structure Rules for *Ahmad eats an apple*

The phrase structure rules are represented in phrase tree as in Figure 2.3.
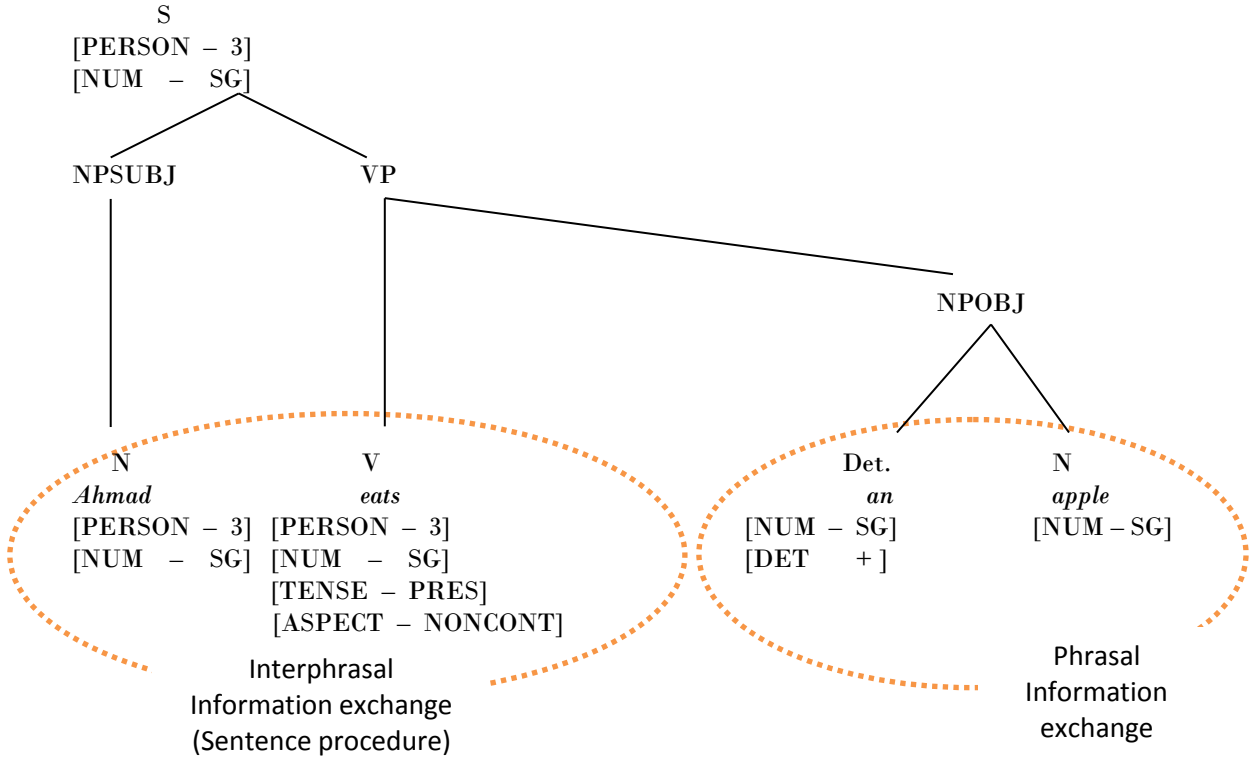

Figure 2.3 Phrase Tree for *Ahmad eats an apple*

Figure 2.2 and Figure 2.3 illustrate how categories (e.g.VP) are assigned grammatical functions in the phrase structure rules. In order to understand how LFG is relevant to PT in this example, the relationship between a-structure, f-structure and c-structure is illustrated in Figure 2.4.
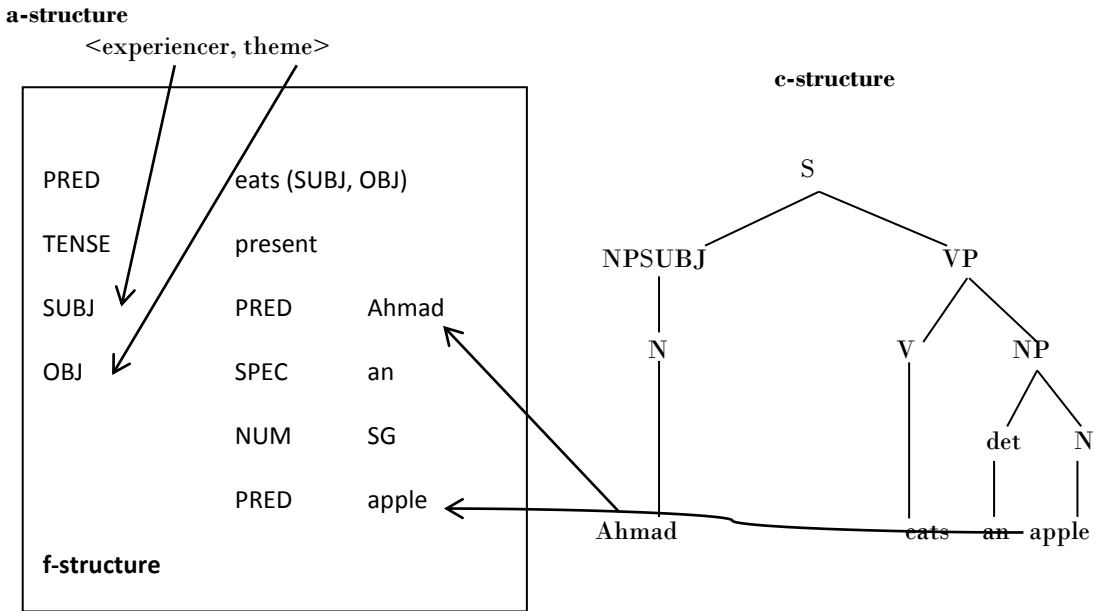
Figure 2.4 LFG Structure for *Ahmad eats an apple*

C-structure shows the relationship between constituents in the phrase. F-structure represents attributes such as TENSE (present). In LFG, it is important that all features are unified and other necessary features are present. Based on the sentence above, no mismatch of the features can be found since all the values given to the constituents are compatible.

The six-stage processing hierarchy starts from Stage 1 (Lemma Access), followed by Stage 2 (the category procedure), Stage 3 (the phrasal procedure), Stage 4 and Stage 5 (the S-procedure/Word Order Rules) and Stage 6 (subordinate clause procedure). Table 2.1 shows the processing procedures applied to English.

Table 2.1 Processing Procedures Applied to English

Stage/Processing Procedure	L2 Process	Morphology	Syntax
1. Subordinate clause procedure	Main and subordinate clause	Cancel INV	
2. Sentence procedure/Word Order Rules - saliency	Interphrasal information	*SV agreement* (3=sg-s)	Do2nd, INVERSION
3. Sentence procedure/Word Order Rules - saliency	Interphrasal information		Y/N INV, Copula Inversion
4. Phrasal	Phrasal information	*VP agreement* *NP agreement*	ADV, Do-Front, Topi Neg+V
5. Category	Lexical morphology	Plural, past, -ed, -ly	Canonical order
6. Lemma	"Words"	Invariant forms	Single constituent

Adapted from Pienemann (2005b)

2.2.4 Stages of Processability Theory Predicted for Adverbials

In terms of the processing procedures of adverbials, only Stage 1, Stage 2, Stage 3 and Stage 6 are involved. Stages 4 and 5 are not related to the processing of adverbials in second language learners because at the fourth stage of Processability development stages, a learner at Stage 4 should be able to "construct sentences with phrases whose functional destinations are determined and stored in the S-procedure" (Sakai, 2008, p.537). For example, a learner can be considered to have reached Stage 4 when he/she can produce "Yes/no-Inversion (inversion of the subject and the auxiliary in direct questions) and Pseudo-Inversion (fronting of question words and the inversion of subjects and auxiliaries in wh-questions with to-be verbs)" (Sakai, 2008, p.537). An example for this is *Where is the post office?* In this sentence, the processing procedure "does not involve any sentence-internal rearrangements of constituents and can be accounted for by operations on salient end-point positions" (Pienemann, 2008, p. 227). Whereas in Stage 5, the learners are required to produce interphrasal morphemes and structures syntactically according to the L2 word order rules (Sakai, 2008). For example, in the sentence *What can you see in the garden?*, the *wh*-question *what* requires the inversion and grammatical exchange with *can you see in the garden*. From the example given, it can be seen that the inversion takes place within the sentence. Therefore, no processing procedure related to adverbials is involved in Stages 4 and 5.

2.3 Adverbials

Celce-Murcia and Larsen-Freeman (1999) state that adverbials modify entire sentences or clauses as they function like adverbs but they are differrent from adverbs in terms of their forms. This is because adverbs can only appear in words but adverbials may appear as words, phrases or clauses. Meanwhile, Chomsky (1995) classifies adverbials (adverbial and prepositional phrases) as adjuncts.

Generally, adverbials can be divided into a few categories which are direction, location, manner, time or frequency. There are also a few adverbial types. One of them is known as syntactical adverbials whereby the focus is on the position of adverbs. Chomsky (1995) suggests that adjuncts can be positioned on the left or on the right side of a sentence depending on the parameter setting of a language. In contrast, Cinque (1999, p.3) emphasises that every type of adverbs has a different position in a sentence and different functional categories. He further argues that all adverbs are adjoined to the left of a sentence (p.3). However, Cinque's claim on the left-adjoined position of adverbs invites many arguments. For example, Zhang (2010) counter-argues that if all adverbs are merged to the left side of a sentence, what explanation would account for why some adverbs (e.g. *firstly, consequently*) can appear on the left and sometimes on the right side of a sentence. Therefore, Chomsky's (1995) stand is considered more accurate in determining the position of adverbs or adverbials.

Sometimes, a participle form can also function as an adverbial in which it is termed as adverbial participles. An example of such an item can be found in the adverbial participle *seen* in the following sentence: <u>*Seen* from this perspective, we believe that she will be cured</u>. Nevertheless, not all adverbial participials retain adverbial subordinators and sometimes they can just begin with *–ing* or *–en* form (Celce-Murcia & Larsen-Freeman, 1999).

In this study, the focus of adverbials was on its syntactical position whether it occurs as Sentence-Final Adverbials or Sentence-Initial Adverbials or as Conjunctive Adverbials.

3.0 METHODOLOGY

3.1 Research Design

Since this study endeavours to identify the use of adverbials in the verbal production of Malay ESL learners at the tertiary level, it is best investigated through qualitative content analysis (QCA) method. QCA is the best method for the study that requires some degree of interpretation and deals with meaning that is less obvious (Schreier, 2012). Therefore, qualitative content analysis is considered as the most suitable design for this study because it facilitates the measuring of the subjects' development of adverbials based on their verbal production.

3.2 Participants

The subjects were 60 Malay students from Diploma programme at Universiti Teknologi Malaysia, Kuala Lumpur, chosen based on the total number of students' population of approximately 300 registered students. The placement of their proficiency level was determined by Language Academy, UTM Kuala Lumpur based on their English Language grade in a national examination, Sijil Pelajaran Malaysia (SPM). Students who scored A+, A and A- are placed in intermediate level, meanwhile those who get B+, B, B- and C are placed in elementary level and finally, the students who achieved D and below are placed in beginner level. For this study, 30 students who have been identified as elementary ESL learners were placed in Group One while another 30 students who are intermediate ESL learners were placed in Group Two.

3.3 Pilot Study

The pilot conducted for the current study had several significant purposes. First, it was carried out in order to identify the practicality of the instruments used in terms of collecting the intended data. Besides that, it was executed to find out whether or not the topic chosen for the picture-cued task was suitable. In running the pilot, two subjects from the intermediate level and two subjects from the elementary level were chosen. They were asked to describe the picture-cued task on 'How to Make Chocolate Ice Cream'. It was expected earlier that one participant should take approximately five minutes to complete the given task, but it was learned that the subjects only took about two to three minutes in completing it. Therefore, the pilot study will be referred to in this study as appropriate.

3.4 Instrumentation

Watorek and Purdue (1999) mention that verbal production is a part of the information structure which serves to introduce, maintain or develop information in a specific context. Since this study is

an investigation on the verbal use of adverbials, a Picture Cued-Task was assigned to each participant. Picture Cued-Task is one of the ways to test one's oral language performance as posited by Suwandi and Tafiqulloh (2009). In this task, the participants from each group were given picture strips on 'How to Make Chocolate Ice Cream' in which they had to describe every step vividly. This task is one of the types of process and procedure theme and it was chosen on the basis that the theme uses many adverbials in its description. Before executing the task, the instrument was first validated by language teaching experts from Universiti Teknologi Malaysia, Kuala Lumpur. Improvements and amendments were made based on their comments.

During the presentation, the participants were given one minute to prepare for the task. No paper was allowed during the recorded presentation. The individual presentation based on the picture-cued task of the participants was video-recorded. Then, the data was transcribed. The next step was to analyse each adverbial produced by the elementary and intermediate groups in terms of its occurrence and the positioning of adverbials.

3.5 Validity and Reliability

In order to ensure the validity of the current study, the researcher employed three strategies suggested by Merriam (2009), namely the researcher sought for respondent validation, engaged in the whole process of data collection and sought for colleagues' review on the findings of the data. There are a few reasons why the above strategies were employed. First, by seeking for respondent validation, it allowed the researcher to get feedback from the people involved in the data collection based on the preliminary findings. On top of that, this process can avoid researcher's bias and misinterpretation. Second, adequate engagement of the researcher in the process of data collection enables her to discover when the data were saturated. Third, getting reviews from colleagues who are experts or familiar with the study helps the researcher to determine whether the findings are consistent with the data. In terms of reliability, it was determined by looking at whether the findings were plausible based on the data collected.

4.0 RESULT AND DISCUSSION

4.1 Findings on the Frequency of the Use of Adverbials

Table 4.1 presents the frequencies and percentages of adverbials in spoken discourse according to levels of proficiency. It is identified that Malay ESL learners at the tertiary level used a substantial amount of adverbials in their spoken discourse. A total of 977 adverbials were identified and it is found that the intermediate ESL students used more adverbials (540 or 55.3%) compared to the elementary students (437 or 44.7%).

Table 4.1 Frequency of Adverbials in Spoken Discourse According to Proficiency Level

Proficiency Level	Sentence-Initial Adverbials		Sentence-Final Adverbials		Conjunctive Adverbials		Total
	Frequency	%	Frequency	%	Frequency	%	Frequency
Intermediate	37	6.67	322	59.63	182	33.71	540
Elementary	17	3.90	207	47.37	213	48.74	437
TOTAL							977 (100%)

The data in Table 4.1 were re-tabulated to display the patterns in a non-linear way as shown in Figure 4.1.
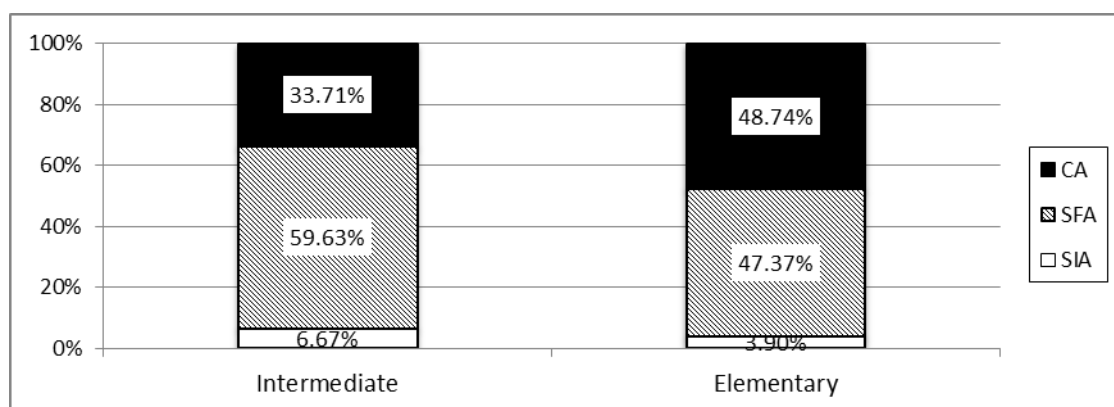
Figure 4.1 Distribution of Adverbials According to Proficiency Level

It is important to note that Sentence-Final Adverbials (SFA) was the most frequent syntactic position of adverbials found in the spoken discourse of intermediate Malay ESL learners with 59.63%. Additionally, adverbials in the Conjunctive Adverbials (CA) were the most frequently used by the elementary learners with 48.74%. The least frequent adverbials used by both proficiency groups were Sentence-Initial Adverbials (SIA) in which 6.67% of the intermediate level learners demonstrated, while 3.9% of the elementary level learners used.

Table 4.2 shows the highest frequency of the types of adverbial form for the intermediate group was the prepositional phrase in Sentence-Final Adverbials (38.9%) for the intermediate level and Sentence-Initial Conjunctive (SIC) (45.8%) for elementary level. The least occurring adverbial for intermediate and elementary proficiency levels was the Sentence-Medial Conjunctive (SMC) (both with 3%).

It is also identified that the occurrence of Conjunctive Adverbials was more frequent in the elementary learners' speech (213 tokens) as compared to the intermediate learners' speech (182 tokens). The highest occurrence of Conjunctive Adverbials for both groups of learners was the initial position which comprised 30.7% (intermediate) and 45.8% (elementary), respectively. This was

followed by the occurrence of Sentence-Medial Conjunctive Adverbials with 3% for both levels. Interestingly, no token of Sentence-Final Conjunctive Adverbials can be found in both learners' speech.

Besides that, it is worth noticing that the intermediate learners used more Clausal SIAs (5.5%), followed by Phrasal SIAs (0.93%) and Prepositional SIAs (0.37%). The results reveal that the elementary learners used only Clausal SIAs (3.9%) but no Phrasal SIAs and Prepositional SIAs were identified (See Table 4.2).

Table 4.2 Frequency of the Types of Adverbial Form According to Level of Proficiency

Proficiency Level	Sentence-Initial Adverbials						Sentence-Final Adverbials						Conjunctive Adverbials						TOTAL
	Phrasal		Prepositional Phrase		Clausal		Adv. Clause		Adv. Phrase		Prep. Phrase		Final		Initial		Medial		
	f	%	n	%	f	%	f	%	f	%	f	%	f	%	F	%	f	%	
Intermediate	5	0.93	2	0.37	30	5.5	64	11.9	48	8.8	210	38.9	0	0	166	30.7	16	3.0	540 (100%)
Elementary	0	0	0	0	17	3.9	54	12.4	17	3.9	136	31.1	0	0	200	45.8	13	30	437 (100%)

It is also learned that 4.2% out of the total tokens of adverbials (977) in the Malay ESL learners' verbal production were used incorrectly. 1.1% out of 540 tokens in the intermediate ESL learners' speech were used inappropriately meanwhile 8% out of 437 tokens in the elementary ESL learners speech were categorised as erroneous (see Table 4.3). This is evident that the lower proficiency group produced more errors as compared to the higher proficiency group.

Table 4.3 Frequency of Misuse of Adverbials According to Level of Proficiency

Proficiency Level	Frequency	
	f	%
Intermediate	6	1.1
Elementary	35	8
Overall Total	41	4.2

Table 4.4 and Table 4.5 demonstrate the frequency of the most used adverbials to the least used adverbials for both intermediate and elementary Malay ESL learners at the tertiary level. Some types of adverbials appear to be frequent in the learners' verbal production. The prepositional SFA is the most frequent adverbial to occur in the intermediate learners' verbal production with 38.9%. This was

followed by the Sentence-Initial Conjunctive (SIC) Adverbial (30.7%), the Clausal SFAs (11.9%) and the Phrasal SFA (8.8%). On the other hand, it is also revealed that the Phrasal SIA and the Prepositional SIA were among the least frequent adverbials found in the learners' speech with 0.93% and 0.37%, respectively.

Table 4.4 Frequency of the Most Used Adverbials for Intermediate Malay ESL Learners at the Tertiary Level

Types of adverbials	Token/Percentage
Prepositional Sentence Final Adverbials (SFA)	210 (38.9%)
Sentence-Initial Conjunctive (SIC) Adverbials	166 (30.7%)
Clausal Sentence-Final Adverbials (SFA)	64 (11.9%)
Phrasal Sentence-Final Adverbials (SFA)	48 (8.8%)
Clausal Sentence-Initial Adverbials (SIA)	30 (5.5%)
Sentence-Medial Conjunctive (SMC) Adverbials	16 (3%)
Phrasal Sentence-Initial Adverbials (SIA)	5 (0.93%)
Prepositional Sentence-Initial Adverbials (SIA)	2 (0.37%)
Sentence-Final Conjunctive (SFC) Adverbials	0
TOTAL	540 (100%)

For the elementary learners, the Sentence-Initial Conjunctive (SIC) Adverbials were the most common adverbial found at 45.8%. Sentence-Medial Conjunctive Adverbials (3%) were identified as the least frequent types of adverbials in their speech.

Table 4.5 Frequency of the Most Used Adverbials for Elementary Malay ESL Learners at the Tertiary Level

Types of Adverbials	Token/Percentage
Sentence-Initial Conjunctive (SIC) Adverbials	200 (45.8%)
Prepositional Sentence-Final Adverbials (SFA)	136 (31.1%)
Clausal Sentence-Final Adverbials (SFA)	54 (12.4%)
Phrasal Sentence-Final Adverbials (SFA)	17 (3.9%)
Clausal Sentence-Initial Adverbials (SIA)	17 (3.9%)
Sentence-Medial Conjunctive (SMC) Adverbials	13 (3%)
Phrasal Sentence-Initial Adverbials (SIA)	0
Prepositional Sentence-Initial Adverbials (SIA)	0
Sentence-Final Conjunctive Adverbials	0
TOTAL	**437 (100%)**

It is also learned that there are a number of adverbials that were not deployed by the learners (see Table 4.6). The intermediate learners did not utilise Sentence-Final Conjunctive (SFC) Adverbials throughout their speech. On the other hand, no Phrasal SIA, Prepositional SIA and Conjunctive Adverbials can be found in the elementary learners' verbal production.

Table 4.6 Adverbials that were not deployed

Proficiency Level	Types of adverbials that were not deployed
Intermediate	Sentence-Final Conjunctive Adverbials
Elementary	Phrasal Sentence-Initial Adverbials
	Prepositional Sentence-Initial Adverbials
	Sentence-Final Conjunctive Adverbial

4.2 Discussion of the Findings

Based on the analysis of the data, it is identified that the intermediate Malay learners' at the tertiary level used more adverbials in their verbal production (535 tokens of adverbials) compared to the elementary learners in which there were only 437 tokens of adverbials. It is also observed that the highest occurrence of adverbials used by intermediate learners was the Prepositional SFA with 210 tokens (38.9%). Out of these 210 tokens of adverbials, five tokens were incorrect. However, since the objective of the study was to find out the frequency of the use of adverbials by Malay ESL learners at the tertiary level, the incorrect use of the adverbials that involved grammar mistakes was still accepted as long as they maintained their adverbial function. The errors identified were;

Participant 9: …we melt it *<u>**into the oven**</u>

Participant 17: The third method is pour milk *<u>**with sift cocoa powder**</u>.

Participant 20: …after 30 minutes, you must take it slowly and *<u>**closely**</u>

Participant 20:...put the chocolate mixture *<u>**with the whipped egg yolk**</u>…

Participant 20: Place in refrigerator *<u>**in about**</u> one hour

The most frequent adverbial produced by this group was the Sentence Initial Conjunctive (SIC) Adverbials with 200 tokens or 45.8%. It is learned that the elementary learners tended to repeat the same SIC Adverbials. For example, *then*, occurred in two of the subjects' utterances for more than four times in a row as illustrated in the example below:

Participant 34:

*<u>**And then**</u>, we need to stir it in a bowl and we need to tear some egg yolks and sugar*

*<u>**And then**</u>, we need to mix the egg yolk and sugar in one bowl and stir it.*

*<u>**And then**</u>, stir it with whisk.*

*<u>**And then**</u>, pour some milk into the bowl with a sift cocoa powder.*

*<u>**And then**</u>, stir it again until it…. (pause) melt-lah.*

Participant 38:

> ***And then***, *stir.*
> ***And then***, *transfer the mixture into another bowl.*
> ***And then***, *cover it and place in refrigerator for one hour.*
> ***And then***, *pour into ice cream machine container.*
> ***And then***, *it's ready to eat.*

The repetition of the same initial Conjunctive Adverbials in the utterance of the elementary learners could be attributed to the learners' limited vocabulary of conjunctive adverbials and lack of understanding of adverbials. This concurs with the findings of Jalaluddin, Mat Awal and Abu Bakar (2008) in which they found that ESL learners in Malaysian secondary schools have difficulties in using the correct adverbs and understanding various word meanings when they have limited English language proficiency. This finding also supports Hůlková's (2012) finding whereby he posits that ESL/EFL speakers overuse, underuse and even misuse certain Conjunctive Adverbials.

Besides that, it can be seen that the Clausal SIAs in the intermediate learners' speech was higher compared to that by the elementary learners which was 30 tokens or 5.5%. However, only 17 tokens (3.9%) were found in the elementary learners' speech. It is learned that Clausal SIAs by the intermediate learners' were more complex than the elementary learners. This point will be further explained in the discussion part of RQ2. The excerpts below illustrate the Clausal SFAs used by the intermediate learners:

> Participant 1: …beat it in a bowl until it becomes fluffy
> Participant 2: …and stir while doing so
> Participant 3: …prepare before making this chocolate ice cream
> Participant 9: …until it is completely melt

The first five types of adverbials in the intermediate learners' verbal usage were Prepositional SFAs, SIC Adverbials, Clausal SFAs, Phrasal SFAs and Clausal SIAs. The occurrence of Prepositional SFAs as the most common adverbial appeared in the intermediate learners' speech is in parallel with the findings of Biber and Clark (2002) in which they found that prepositional phrase that functions as post modifiers are by far most common than clausal modifiers.

On the other hand, the first five most frequent adverbial types for the elementary learners were SIC Adverbials, Prepositional SFAs, Clausal SFAs, Phrasal SFAs and Clausal SIAs. In this regard, it is possible that the reason Conjunctive Adverbial in initial position appeared as the most common adverbial in the elementary learners' verbal production is the learners' limited knowledge on the various ways of using adverbials in describing processes and procedures task, therefore, the learners tended to use Conjunctive Adverbials profusely. This finding is in line with the study by Neary-Sundquist (2008) in which he states in the context of second language speech production, learners who have a higher proficiency level use more complex conjunctions and cohesive devices (Conjunctive Adverbials may sometimes fall under conjunctions or cohesive devices) in their speech production than learners who have low proficiency level. In this regard, the elementary learners were able to produce a high number of Conjunctive Adverbials, however, repeated the same Conjunctive

Adverbials many times throughout their speech and this shows that their limited proficiency contributed to their inability to use more complex and various Conjunctive Adverbials.

Although most of the adverbial forms types were evidenced in the data, it should be noted that some of the adverbials were not utilised by the learners (see Table 4.6). For example, the elementary ESL learners did not use Phrasal SIA, Prepositional SIA and SFC Adverbials. However, only one category of adverbials did not occur in the intermediate learners' verbal production namely Conjunctive Adverbials in final position.

To sum up, it can be concluded that the intermediate ESL learners at the tertiary level used a substantial amount of adverbials in their verbal production compared to the elementary learners. It is possible that the differences in the frequency were due to their level of knowledge of adverbials in which the intermediate learners were able to use different types of adverbials in a complex manner, juxtaposed to the elementary learners.

4.3   Findings on the Differences between Elementary and Intermediate Malay ESL Learners' Acquisition of Adverbials

Based on the data analysis, it can be observed that the elementary Malay ESL learners produced fewer adverbials than the intermediate learners. There is enough evidence to show that the learners at the elementary level have not progressed much in terms of knowledge of adverbials based on their use of them. To illustrate, there are still a number of learners who did not know how to use Conjunctive Adverbials correctly for which they substituted it with numerals;

Participant 52: *_**Two**_, we have to…egg yolk and sugar…
Participant 52: *_**Four**_, put chocolate mixture…
Participant 56: *_**Four**_, after the chocolate mixture…
Participant 56: *_**Six**_, transfer it to another bowl…

Another finding that is worth noticing is that Malay ESL learners from both proficiency levels were found to inappropriately use –ly adverbials. However, only one misuse of –ly was identified in the intermediate learners' verbal production. Some of the misuses of –ly adverbials are shown below:

Elementary learners

Participant 32: *Add some milk into the sifted cocoa powder and whisk it *_**continually**_.
Participant 32: *After it become *_**evenly**_, transfer into another bowl.
Participant 35: *And then you stir it in the bowl *_**mixly**_
Participant 35: *Next, cover it *_**smartly**_..eh…emmmm..cover it…
Participant 36: *The *_**thirdly**_ we mix with milk and sifted cocoa powder.
Participant 41: *Then, pour the milk and sifted cocoa powder and stir it until it   *_**equally**_.
Participant 51: *The *_**lastly**_ method is pour into ice cream machine container.

One of the possible reasons that may account for the misuse of -*ly* by the elementary learners was due to the learners' understanding of adverbials as supported by Mat Awal, Jalaludin and Abu Bakar (2007). They posit that some of their subjects were not able to answer questions on adverbs as majority of them might not even know the meaning of some words, which made it difficult for them to apply –*ly* marker if they did not know the meaning.

Intermediate learners

Participant 20: *Then, after 30 minutes, you must take it out slowly and**closely*.

From the analysis of the data, it is also realised that adverbials that occurred as prepositional phrase were used inappropriately. The examples below illustrate some of the inappropriate use of prepositional phrases by both elementary and intermediate learners;

Elementary learners

Participant 40: *Then, we melt the chopped chocolate **at the microwave*.
Participant 45: *Put it **on a big cup*.
Participant 49: *Then, you must stir it **at the bowl*.
Participant 52: *Place in refrigerator **on one hour*.
Participant 53: *Next, we have a milk and put it together **at the sift cocoa powder*.
Participant 53: *Then, we have a chocolate mixture and put it **on blender.*

Intermediate learners

Participant 9 : *We melt it **into the oven*.
Participant 17: *The third method is pour milk **with sifted cocoa powder*.
Participant 20: *…… put the chocolate mixture **with the whipped egg yolk mixture*.
Participant 20: *Place in refrigerator **in about one hour*.

According to Mat Awal, Jalaludin and Abu Bakar (2007), the misuse of prepositions among Malay students may sometimes be influenced by culture (p.110). For example, findings from their study indicated that majority of the Malay students from three secondary schools were unable to identify the correct usage of preposition *in*. They assert that these students might have translated literally the answer option given into Malay.

4.4   Discussion on the Differences between Elementary and Intermediate Malay ESL Learners' Acquisition of Adverbials

Adverbials are a small component of English grammar but they are considered to have morphologically the most diverse grammatical structures (Celce-Murcia & Larsen-Freeman, 1999).

The analysed data of this study suggest that there are some differences between elementary and intermediate Malay ESL learners' acquisition of adverbials.

The first difference that can be found is in the use of Conjunctive Adverbials (CA) or also known as conjunctions. It is identified that there were some elementary learners who failed to use Conjunction Adverbials appropriately. CA is considered as one of the basic structures of English and its misuse should not appear in the verbal production of tertiary level students who have gone through a minimum of 11 years of formal English language learning process. However, it can be seen that the learners at the intermediate level were able to produce Conjunctive Adverbials appropriately.

As mentioned previously, the second research objective used Pienemann (1998, 2005) Processability developmental model. Each stage is an essential prerequisite for each processing procedure. Based on this developmental order, the use of adverbials is developed throughout four stages namely Stages 1, 2, 3 and 6.

Specifically, all of the learners followed Stage 1 rules whereby they were basically able to use words and chunks of words with no grammatical information exchange involved at this stage.

The ability to use –ly adverbial rules appropriately is categorised at Stage 2. In relation to this, it is found that the elementary learners produced only 73 tokens of the -ly adverbials with eight of them inappropriately used in their verbal production. On the other hand, the intermediate learners produced higher tokens of adverbials compared to elementary learners (88 tokens of -ly adverbials) and only one token of misuse was identified.

On top of that, it can also be observed that, 20% (6 learners) of the elementary learners still could not process the correct use of –ly adverbials although it is a processing procedure at Stage 2. Nevertheless, only 3.3% (1 learner) of the intermediate Malay ESL learners at the tertiary level produced one inaccurate use of –ly adverbials morpheme. At this point, it can be said that only 20% of the elementary learners have not mastered the Stage 2 rules despite they were able to use other –ly adverbials appropriately. It can also be assumed that 97% of the intermediate learners were able to process the procedure at Stage 2.

Based on the results, it can be inferred that both proficiency groups were able to apply some rules on the positioning of adverbials although there were no application of Phrasal SIA and Prepositional SIA by the elementary learners. Also there was no evidence of SFC Adverbial in both proficiency levels (see Table 4.6). The ability to apply the rules of adverbial positioning shows that most of the intermediate and elementary learners were able to understand the adverbials rule in Stage 3 which requires the learners to produce phrasal morphemes and attach constituents to the front or the end of the canonical order (Sakai, 2008).

The results of this study demonstrate that both the elementary and intermediate ESL learners, basically, were able to produce adverbial prepositional phrases in their verbal production. This suggests that most of them had progressed to Stage 6 as they must be able to distinguish the main clause and subordinate clause and apply different operations to the subordinate clause in Stage 6. However, it can be noticed that a number of the elementary learners were not able to master the use of adverbial prepositional phrases compared to the intermediate learners. Most of the prepositional phrases found in their speech were erroneous and some of the prepositional phrases were incomplete.

From the data analysis, it can be inferred that, the intermediate learners produced inaccurate prepositional phrase but compared to the elementary learners, the error was only on the wrong choice

of the front part of prepositional phrase. For example, in the phrase, *put it __on blender__*, *on* was used instead of *__in__ the blender*. With respect to this, it can be seen that some of the elementary Malay ESL learners were able to process only a partial rule of Stage 6 procedure, which affected the developmental routes of adverb/adverbial processing procedures despite their 11 years of English language exposure. According to Pienemann (1998, p.7), when a procedure is missing in the hierarchy, "the hierarchy will be cut off in the learner's grammar at the point of the missing processing procedures and the rest of the hierarchy will be replaced by a direct mapping of conceptual structures onto surface form". Some of the elementary learners were able to distinguish the main clause and subordinate clause but to some extent, some of them failed to apply the rules of the subordinate clause which is reflected in their inappropriate use of the adverbial prepositional phrase (subordinate clause). For the intermediate learners, it can be seen that most of them were able to differentiate between the main clause and subordinate clause and only three learners produced inaccurate use of the adverbial prepositional phrase.

Hence, it can be concluded that (i) both the elementary and intermediate Malay ESL learners at the tertiary level were able to produce the structures predicted by the Processability Theory up to Stage 6 in their verbal production of adverbials although some of them, especially those in elementary level, failed to process the rules contained in Stage 2, (ii) Even though some of the elementary level learners were able to process the adverbial rules up to Stage 6, the differences can be seen in terms of the choice of vocabulary, the complexity of the adverbials and the diversity of the positioning of adverbials in which they used limited range of adverbials vocabulary and less complex adverbials. (iii) On the other hand, the intermediate learners showed adequate evidence for the stability of adverbials developmental stages since the majority of them developed according to the Processability Theory prediction.

5.0   CONCLUSION

Much attention has been given in studying the process of developmental trajectories of English grammar components among L2 learners, however, adverbials are not as common as others. Therefore, this study provides an insight into the use of adverbials from the developmental perspective among Malay ESL learners at the tertiary level. It has confirmed the adherence of adverbial acquisition according to Pienemann's Processability Theory. It has also provided evidence that adverbial verbal usage among learners of different levels is different not only in terms of frequency but also types of the structure.

Pienemann (1998) asserts that Processability Theory is not only limited to L2 production. As long as any linguistic procedural skills are involved, this theory is relevant. This study has examined the productive aspect of language use in an L2 learning context which helped to demonstrate another application of Processability Theory.

The findings of this study have clear implications for ESL practitioners. It is important that ESL teachers especially in Malaysia address the ability of the learners to process the rules of adverbials as suggested by Pienemann (1998, 2005). Despite the fact that these learners have gone through a minimum of 11 years of formal English language learning process, a number of them still do not

perform as expected especially in their spoken discourse. This is where the role of a teacher is vital whereby they need to address and consider the students' ability in processing certain linguistic features based on their ability as projected by Pienneman's developmental trajectories.

Besides that, the pedagogical materials for oral communication skills at the elementary and intermediate proficiency levels should clearly address the use of adverbials. This includes a focus on language proficiency syllabus for the tertiary level institutions which should be designed and approached based on the recommended developmental stages of adverbials and other linguistic features. It is also important not to teach adverbials in isolation but to integrate them with other grammar components since adverbials are just a small component of grammar.

The results of this study are not only beneficial to ESL learners and educators, but also to education policy-makers in Malaysia. In order to implement a better approach in learning and teaching English, education policy makers play an important role to examine how language learning and teaching are theorized in the Malaysian educational context. Therefore, by identifying ESL learners' linguistics developmental trajectories, policy-makers may devote their attention to identifying any loopholes in Malaysian language learning education policy in order to advocate better English language learning atmosphere in Malaysia.

REFERENCES

Ali Muftah, M. Y. & Wong, B. E. 2011. The Acquisition of English Be Auxiliary and Thematic Verb Constructions by Adult Arab ESL Learners. *International Journal of Linguistics*. 1(2): 91-105.

Behjat, F. & Sadighi, F. 2011. The Acquisition of English Grammatical Morphemes: A Case of Iranian EFL Learners. *The Modern Journal of Applied Linguistics*. 3(2): 105-123.

Biber, D. & Clark, V. 2002. Historical Shifts in Modification Patterns with Complex Noun Phrase Structures. In T. Fanego *et al.* (eds.). *English Historical Syntax and Morphology: Selected Papers from 11* ICEHL, *Santiago de Compostela, 7-11 September 2000*. Amsterdam: John Benjamins. 43-66.

Bresnan, J. 2001. *Lexical-Functional Syntax*. Malden, MA: Blackwell.

Carnie, A. 2013. *Syntax: A Generative Introduction*. 3rd ed. U.S: John Wiley Publication.

Celce-Murcia, M., & Larsen-Freeman, D. 1999. *The Grammar Book: An ESL/EFL Teacher's Course*. 2nd ed. Boston, MA: Heinle & Heinle.

Chomsky, N. 1995. *The Minimalist Program*. Cambridge, Massachusetts: MIT Press.

Cinque, G. 1999. *Adverbs and Functional Heads: A Crosslinguistic Perspective*. Oxford: Oxford University Press.

Ejzenberg, R. 2000. The Juggling Act of Oral Fluency: A Psycho-sociolinguistic Metaphor. In H. Riggenbach (Ed.). *Perspectives on Fluency* Michigan: The University of Michigan Press. 287-314.

Ellis, R. 2008. *The Study of Second Language Acquisition*. 2nd ed. Oxford: Oxford University Press.

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(3): 130-143.

Hernandez, M. S. 2006. The Position of Adverbs in English: Trying to Solve a Major Problem Most Language Learners Usually Face. *Filología y Lingüística*. 32(1): 271-285.

Hsieh, F. T. 2009. The Acquisition of English Agreement/Tense Morphology and Copula be by L1-Chinese-speaking Learners. In S. Disney, B. Forchtner, W. Ibrahim, & N. Mille (Eds.). *Paper from Lancaster University Postgraduate Conference in Linguistics & Language Teaching* Lancaster, UK: Department of Linguistics and English Language, Lancaster University. 2: 445-59.

Hůlková, I. 2012. Conjunctive Adverbials in the Genre of Research Articles. Ph.D. Dissertation. Masaryk University, Czech Republic.

Jalaluddin, N. J., Mat Awal, N., & Abu Bakar, K. 2008. The Mastery of English Language among Lower Secondary School Students in Malaysia: A Linguistic Analysis. *European Journal of Social Sciences*. 7(2): 106-119.

Lighthbown, P. M. 2000. Classroom SLA Research and Second Language Teaching. *Applied Linguistics*. 21(4): 431-462.

Lightbown, P. M. & Spada, N. 2006. *How Languages Are Learned*. Oxford: Oxford University Press.

Mlambo, M. 2012. Variability in Second Language Learners' Acquisition of Verb Morphology by Shona Speakers of English: A Developmental Analysis. *Journal of Language, Technology & Entrepreneurship in Africa*. 3(2): 1-14.

Mohd Zain, Z., & Rafik-Galea, S. 2010. Anxiety and Academic Reading Performance Among Malay ESL Learners. *Journal of Pan-Pacific Association of Applied Linguistics*. 14(2): 41-58.

Neary-Sundquist, C. 2008. The Role of Task Type and Proficiency Level in Second Language Speech Production. Ph.D. Dissertation. Purdue University, U.S.

Pienemann, M. 1998. *Language Processing and Second Language Development – Processability Theory*. Philadelphia: John Benjamins Publishing.

Pienemann, M. 2005a. *Cross-Linguistic Aspects of Processability Theory*. Amsterdam: John Benjamins Publishings.

Pienemann, M. 2005b. Language Processing Capacity. In C. J. Doughty & M. H. Long (Eds.). *The handbook of Second Language Acquisition*. Boston: Blackwell Publishing.

Pienemann, M. 2008. *Processability Approaches to Second Language Development and Second Language Learning*. In Kessler, J. U. (ed.). Newcastle, UK: Cambridge Scholars Publishing.

Sakai, H. 2008. An Analysis of Japanese University Students' Oral Performance in English using Processability Theory. *System*. 36: 534-549.

Schreier, M. 2012. *Qualitative Content Analysis in Practice*. London: Sage Publication Ltd.

Shin, C. W. 2007. Korean EFL Learners' Knowledge Of Semantic, Morphological, and Syntactic Properties of English Verbs: The Relationships of Lexical and Grammatical Knowledge. (Doctoral dissertation). Retrieved from University of Texas Libraries. 192186946.

Stern, H. H. 1991. *Fundamental Concepts of Language Teaching*. Hong Kong: Oxford University Press.

Suwandi & Tafiqulloh. 2009. Designing Speaking Test. *Eksplanasi*. 4(8): 184-191.

Towell, R., & Hawkins, R. 1994. *Approaches to Second Language Acquisition*. Clevedon, U.K.: Multilingual Matters.

Watorek, M., & Perdue, C. 1999. Additive Particles and Focus: Observations from Learner and Native-Speaker Production. *Linguistics*. 37: 297-323.

Yule, G., & Macdonald, D. 1990. Resolving Referential Conflicts in L2 Interaction: The Effect Of Proficiency and Interactive Role. *Language Learning*. 40(4): 539-556.

Zhang, Z. H. 2010. The Syntactic Positions of Adverbs and the Second Language Acquisition. *Sino-US English Teaching*. 7(9)(81): 48-54.