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## The IPMA on Factors Influencing Language Ability of Malaysian Higher Education ESL Learners

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### Abstract

There has been extensive research in the field of second language acquisition resulting in the introduction of various methods to help individuals learn ESL. One of the issues addressed related to ESL learning in Malaysia is related to the limited exposure to ESL. It is due to the changes of the English language status in Malaysia since independence. A theoretical framework developed emphasizes five factors in learning process which include implicit and explicit exposure to ESL, the cognitive learning dimensions (CLDs) consist of motivation and memory strategies as the mediating variables, and language ability as the outcome. The question on what factors should be given the priority has been raised in this study to ensure the result on the language ability is optimal. 460 responses were collected from undergraduate students in different public and private higher learning educations in Malaysia. 445 were analyzed in PLS-SEM for structural model analysis. Hypotheses testing revealed that all four factors are having a positive relationship, and the IPMA shows that explicit exposure is the most important factor while motivation has the lowest importance. Memory strategies, among other variables, should be given the priority for further research due to its second highest importance in the framework but the least contribution to language ability performance. One of the reasons is due to the practice of rote memorization among Malaysian ESL learners which should be transformed into an effective memory strategy in ESL learning.

**Keywords:** IPMA, Memory Strategies, Language Learning, Language Acquisition, Exposure to ESL.

### Introduction

The history of the English language in Malaysia began with the British era, and it has gone through different phases since the country's independence in 1957. In the broadest strokes, the history can be divided into three phases. The first phase took place before and during the early days following of independence (before the name was changed to Malaysia) in 1956-1957. The second phase occurred following independence and lasted until 1996. The third phase followed from 1996 until the present, where the English language was reintroduced as the medium of communication in higher learning institutions in the attempt of making Malaysia an education hub. The change of the English language status in Malaysian education from the medium of instruction to only a subject with reduced teaching and

learning hours per week resulted in the decline of the English language mastery (Foo & Richards, 2004; Gaudart, 1987). In addition to the decline of the language mastery is the limited competency in English communication skills among Malaysian graduates that has consequently become a significant reason for their unemployment (Darmi & Albion, 2016).

Hazlina (2016) in her report on new graduates revealed that despite outstanding academic performance, they still struggled with their use of English in for workplace communication, document writing and reporting. This hitch has impacted Malaysian economic stability. Poor English proficiency among graduates has major implications for the Malaysian economy as it is a skill required in order to be competitive in the global market. Furthermore, English proficiency in the business world attracts foreign talent and investment (Darmi & Albion, 2016). Throughout the years in the formal English classroom, Malaysian students have been exposed to various kinds of language input including vocabulary and grammar. Many early researchers (Clark, 1993; Cruse, 1986; Huckin et al., 1993; Laufer, 1997; Nation, 1990, 2006; Stern, 1983; Wallace, 1987) agreed that vocabulary is the most important component in a second/foreign language learning because words are the building blocks of language from which the units of logical and explicable structures such as sentences, paragraphs and whole texts are formed. There is an adage that goes “while without grammar very little can be conveyed, without vocabulary nothing can be conveyed.” Grammar is considered the second most important component affecting SLA (Richards, 2002; Shortall, 1996; Thompson, 1996). Grammar rules are required to put words into a precise arrangement in order to convey meaning. Vocabulary and grammar, among other things, can be obtained through incidental and intentional exposure to ESL. It is reckoned that each kind of exposure has a different impact on language performance. In addition, the cognitive processes in language learning requires that students are motivated to make their decision for an effective memory strategies that will help their language ability to progress.

### **Literature Review**

There are significant discrepancies in the use of English as the medium of learning between the pre and post-independence era. Before the independence, schools initially had British teachers who taught using the Standard British English, but as the number of private and mission schools increased, there was a need for more teachers which resulted in the employment of local English language teachers and people began to adapt to the ‘nativised English’. With time, English became the language of informal communication among local students. Lowenberg (1986) stated that this is due to its prestige and ethnically neutral status. During this time, English was also used as the primary language for transport, commerce, and mass media including imported films for entertainment (Thirusanku & Yunus, 2014). Once Malaya gained its independence from the British in 1957, the status of the English language in Malaysia changed (Too, 2017) and Bahasa Melayu was adopted as the national language.

According to Tsui and Tollefson (2004), the adoption of Bahasa Melayu as the national language marked the second phase relating to the role of English in Malaysia. Bahasa Melayu was adapted as the national language as a means to engender a national identity among people of diverse cultural backgrounds. The policy of pushing Bahasa Melayu to replace English was also an element in the power struggle between the Malays and the increasingly influential Chinese and South Asians in the country during that period (Thirusanku & Yunus, 2014). Gill (2002) pointed out that replacing English with Bahasa Melayu was an unavoidable step for the government in order to give room for the full development of Bahasa Melayu. The most important step taken in the attempt to implement the new language policy was to

convert all English-medium schools into Malay-medium schools beginning in 1969 and reaching completion in 1973 (Gill, 2005). Henceforth, Bahasa Melayu was recognized as the national language (Jernudd, 2003).

The third phase began when the government aimed to make Malaysia an education hub (see Education Act, 1996). This aim restored the role of English as the medium of instruction in higher education institutions. This decision was made in order to attract international students to study in Malaysia. The re-introduction of English as the medium of instruction in public universities in Malaysia began to commence in 2005, and only in courses like Mathematics, Science and Technology (Middlehurst & Woodfield, 2004; Too, 2017). The status of English in Malaysian education, and especially in higher education institutions, has continued to be a topic of interest for researchers particularly in the context of English language proficiency among Malaysian students and graduates. The history of the English language in Malaysia is not only centered on different phases and changes to the status of English, but it also discusses the change in the exposure to English language both inside and outside the classroom. In the first phase, students were exposed to native English teachers, and these students acquired the language via daily communication. Subsequent English exposure also came from the workplace where English was the main medium of communication. Compared to the reality today, the amount of exposure to English in school is limited to a few hours a week, with little to no encouragement to apply the language outside the classroom. Apparently, the transition in the status of English over time has impacted the amount of English input Malaysians receive.

### **Exposure to ESL: Implicit and Explicit**

Al Zoubi (2018) defined exposure to language as the contact that learners have with the target language. To be sure, the English teacher plays a role in providing learners with sufficient exposure and opportunity to practice the language in various contexts. Researchers believe that learning English should be encouraged both inside and outside of the classroom and through the appropriate techniques. The general consensus among researchers is that ESL exposure plays an essential role in language acquisition and that it encourages students to learn the language easily and more successfully (Al Zoubi, 2018). There are two types of language exposures discussed by previous researchers; namely, incidental and intentional exposure. These said exposures are also called implicit and explicit learning. While some researchers (Krashen, 1982, 1999, 2000; Truscott, 1996; Zobl, 1995) are critical of the role of explicit language learning in L2, others (Ellis, 2002; Ellis, 2002; Hinkel & Fotos, 2002; Seliger, 1979) believe that it has a facilitating role. The earlier group of researchers agreed that the emphasis should be centered on exposure to the target language via social interaction with native speakers which can directly improve language proficiency (Peregoy & Boyle, 2005). D'Ydewalle and De Bruycker (2007) added that learners could also learn words and phrases while sitting on their computers at home while playing a game. These are examples of the implicit or incidental learning of language that commonly takes place outside the classroom. Incidental learning also refers to the memory encoding of a word or expression without the intention to commit the knowledge to memory (Hulstijn, 2013). Explicit exposure to the target language, by contrast, typically takes place in a formal classroom setting, where learners deliberately arrive and are fully conscious of the language lesson at hand and the fact that they are being taught (Al Zoubi, 2018) with the intention to commit the element to memory; this is intentional learning. Researchers are committed in finding the answers related to the effective ways to learn and develop ESL skills among non-native learners.

Despite the debate among research groups regarding implicit and explicit language exposure, the main focus is mutually positioned on providing a dynamic experience in language learning in order to influence language performance. Language performance or ability is a different area of study from language learning, while the process of language learning is the most vital part in language learning. Following exposure to ESL in primary and secondary school, English is used as the main medium of communication in most Malaysian public and private universities in order to prepare students with adequate English skills for the workplace. Theoretically, after going through years of English lessons, students should be getting better at English language perception and production, and they should have a better grasp of English language acquisition. In practice, however, many of them are not able to perform in English class or any course that requires them to read, write, and present in English. Despite 10 years of formal English courses in school, higher education students and graduates are still repressed by affect factors [4] including lack of motivation and lack of interest in learning English (Thang et al., 2012).

### **Motivation**

Motivation is a significant factor affecting SLA (Pajares & Urdan, 2006; Raofi et al., 2012) and is a commonly discussed component of language learning. Indeed, learning interest and motivation are essential factors in successful language acquisition (Al Zoubi, 2018; Alizadeh, 2016; Anjomshoa, 2015). Researchers in this area have been placing primary concern on describing, quantifying, and relegating the role of motivation in theoretical models of the language cognition process (Adwani & Shrivastava, 2017; Liu, 2015; Ushioda, 1996). Consequent to scholars' interest in the role of motivation on language learning, various theories have been established to explain its role in different contexts. While prominent researchers like Bandura refer to motivation as one of the dimensions bridging the transition between observation and outcome, Weiner (1990) highlights motivation through the lenses of behavioral theories that explains extrinsic motivation (i.e., reward), and cognitive theories that explicates intrinsic motivation (i.e., goals). However, Gardner's (1985) indication as cited by Xu (2008) considers motivation in language learning as goal directed and defined it as "the combination of effort plus desire to achieve the goal of learning the language plus favorable attitudes toward learning the language;" this definition is relevant to the present study. Currently, there is limited literature on the effect of motivation on Malaysian graduates language performance.

Chilingaryan and Gorbatenko (2015) explained that while behaviorists posit that motivation is influenced via positive social models, desired rewards, and the avoidance of unpleasant consequences, cognitivists posit that motivation is influenced by interesting stimuli, meaningful content, comprehensible input, and freedom from threat or risk. In the English classroom, teachers should motivate students by providing interesting material and creating an appealing and non-threatening classroom atmosphere (Zaman, 2015). This is because students with a positive attitude and desire to learn will have an increased likelihood of attaining their goals. Beyond conceiving of motivation as the combination of desire and effort to learn (Gardner, 2012), motivation also begets strategy choice (Oxford & Nyikos, n.d.). Granting that, motivation and learning strategies have interplaying roles as mediators between language input and learning outcome.

### **Memory Strategies**

Language learning strategies are indeed another factor that contributes to language learning success. Razak and Babikkoi (2014) found that the three strategies directly related to language learning (cognitive, memory, and compensation) are secondary to Malaysian ESL learners from the local public secondary schools. These strategies include practices that ensure storing, processing, and retrieval of the target language. In contrast, affective, meta-cognitive, and social strategies as indirect learning strategies are more popular among the learners. Although researchers found memory strategies as secondary to Malaysian students, memorization practice is common among students from Asian cultures (Thang, 2003). Nevertheless, rote memorisation should be seen as a disturbing feature. This research, however, has revealed that the memorization was normally accompanied by an attempt to understand the content (e.g., Kember & Gow, 1990; Biggs, 1996; Marton et al., 1996; Watkins, 1996; Hess and Azuma, 1991). Additionally, Thang (2003) found that memorisation is more dominant among Malaysian distance learners relative to on-campus students. Memory strategies in general involve the mental processing of the new information (Balini & Jeyabalan, 2018) received from observation (language input). Considering the connection of memory strategies with mental activity, it was assumed that it mediates the relationship between motivation and ESL performance among Malaysian higher education students. It was predicted that 'student A' who was motivated to acquire ESL skills had a better chance to succeed when he/she applied memory strategies.

### **Importance-Performance Matrix Analysis**

According to Darmi and Albion (2016), exposure to the target language (implicit and explicitly) should be considered as another important factor affecting SLA. In addition to teaching vocabulary and grammar, learning ESL through extensive exposure with the removal of psychological barriers will improve learners' motivation to progress by taking up effective memory strategies based on the kind of exposure they have received inside and outside the classroom. Based on the study of the learner's implicit (and explicit) exposure to English and their responses on learners' motivation, memory strategies, and finally the result of the relationships on language ability, an Importance-Performance Matrix Analysis (IPMA) is viewed as significant to discover the factor that should be given the highest attention to in order to achieve the desired language performance among the future graduates.

### **Methodology**

This cross-sectional study involved 460 undergraduate students from public and private higher learning institutions. Initially, the sample size decision based on Cohen and Krejcie & Morgan, with suggestion of 206 to 384 respondents. Due to the large population size, and resources accessibility, 460 responses were recorded. Proportionate stratified sampling method was carried out and four strata were identified; Strata I and II were male and female undergraduates in public institutions, Strata III and IV were male and female undergraduates in private institutions, while questionnaire survey was used as the survey instrument. The number of responses after the screening process was 445. The data coded and keyed into Statistical Package of Social Science (SPSS) for the analysis of validity, reliability, and demographic profiling. Next, the data was transferred into SmartPLS 3.0 for structural model analysis using PLS-SEM.

**Data Analysis**

The importance-performance matrix analysis (IPMA) is also called the importance-performance map analysis, and impact-performance map analysis. It is an extension to the standard PLS-SEM results. It provides reports of path coefficient estimates by adding dimension to the analysis, and accounts for the average values of the latent variable scores (Fornell et al., 1996; Höck et al., 2010; Kristensen et al., 2000; Slack, 1994). The IPMA procedure contrasts model total effects on the specific target construct, which in this case is language ability, with the average latent variable scores of this construct’s predecessors (i.e., implicit exposure, explicit exposure, motivation, and memory strategies).

Table 1  
*Importance-Performance Matrix Analysis Results*

|     | Importance | Performances |
|-----|------------|--------------|
| EE  | 0.501      | 76.041       |
| MEM | 0.449      | 72.534       |
| IE  | 0.211      | 79.802       |
| MOT | 0.194      | 77.236       |

Hair et al (2017) explained the use of unstandardized total effects to interpret the IPMA where a one-unit increase of the predecessor’s performance increases the performance of the target construct by the size of the predecessor’s unstandardized total effect, provided that other variables remain equal. Accordingly, the results from the IPM analysis are interpreted into the IPMA chart in Figure 1 based on the values presented in Table 1. The results show that a one-unit increase of EE, MEM, IE, and MOT increases LA performance by 0.501, 0.449, 0.211, and 0.194 respectively. Therefore, among the predecessor constructs, explicit exposure (EE) had the highest importance, followed memory strategies (MEM) and implicit exposure (IE). Motivation (MOT) had the lowest importance based on the results.

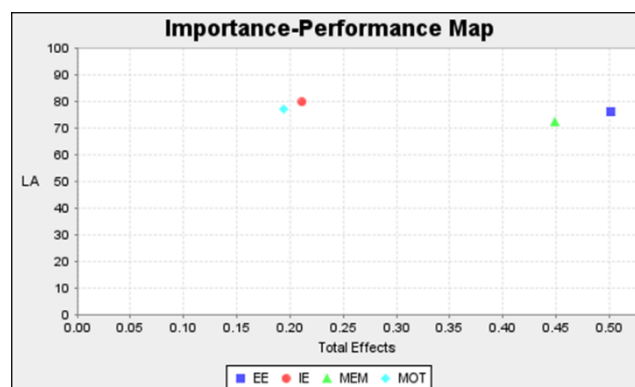


Figure 1. Importance-Performance Analysis of Factors Influencing Language Ability

Two factors appear to be highly important but low in performance based on the analysis. They are explicit exposure (EE) which has the highest importance but the second lowest in performance, followed by memory strategies (MEM) with the second most important but the lowest in performance. Based on this analysis, it is suggested for future research to invest into studying the two factors as they prove to be significant in improving language ability among the higher education ESL learners. Between the two factors, however, more attention should be given to the performance of explicit exposure because, theoretically, the language input from the exposure to ESL is required first before memory

activities take place. This is consistent with the well-known Communicative Language Teaching or Communicative Approach method in which learners are required to have certain degree of knowledge about the target language (i.e., composition and vocabulary) before they are able to apply in their communicative activities and commit the input to memory. Additionally, memory has been recognized by previous researchers like Rodegher (2019); Sousa (2011) as an important process in learning whereby new knowledge and skills are acquired in advance.

## Discussion

In response to the reality faced by Malaysian graduates, a framework based on different theories discussed in the literature review was proposed which includes five important variables in language learning and acquisition. The theoretical framework emphasizes four factors in learning process which include implicit and explicit exposure to ESL, motivation, and memory strategies in order to progress in language ability (result). However, the question on what factors should be given the priority has been raised in this study in enhance the learning effectiveness. Hypotheses testing revealed that all four factors are having positive relationships, and the IPMA analysis shows that explicit exposure is the most important factor, followed by memory strategies, implicit exposure, and motivation. Implicit exposure gains the highest performance despite being less important compared to explicit exposure and memory strategies.

The findings indicated that the two factors that worth to be considered for further development are explicit exposure and memory strategies sequentially. Interestingly, the importance of memory strategies as one of the important attributes for language ability among Malaysian ESL learners is anticipated based on the current scenario of learning style using rote memorization, and English language competency of the higher education students. Although there are limited discussions on the practice of rote memorization in ESL learning among Malaysian students, findings from other studies carried out in other Asian countries such as Hong Kong (Kember, 2000; Marton et al., 1996; Watkins, 1996, 2001), Indonesia (Niswati, 2016) and Thailand (Sinhaneti & Kyaw, 2012) are believed to be applicable to Asians from other contexts such as Malaysia. Additionally, the focus on these studies on rote learning was mostly on vocabulary learning, but these studies also suggest that the choice to apply rote learning to memorize words in English is influenced by several possible factors such as the cultural/education background, ESL/EFL environment, traditional habit, national examination demand, and failure to discover the best way that works for individuals (Sinhaneti & Kyaw, 2012).

There has been misunderstanding among the teachers and learners that rote learning for memorization is merely repeating aloud without understanding. Therefore, further studies and development of memory strategies knowledge and practice should be carried out on Malaysian ESL learners. Besides that, as the highest importance factor in this study, explicit exposure to ESL is a common practice among English language instructor especially at the primary and secondary level of education. Apparently, as delivering sufficient exposure to the target language in a diverse contexts, and from different speakers to the learners (Al Zoubi, 2018) is one of the most central roles of an ESL teacher in the classroom, the teachers can show practical examples of the language by being proficient at it, besides encouraging the learners to apply the natural input from televisions, websites, books, magazines, etc. As stated in the literature review, the exposure to the language is not limited to inside of the



classroom, the different forms of outside classroom language exposure can be explicit exposure.

### Conclusion

The fundamental contribution of this study is in the exploration of the most important factor in the relationships among different variables proposed in different reputable theories in language learning and second language acquisition, theories of motivation, as well as language learning strategies. As the most important factor but low in performance as indicated in the IPMA, memory strategies in language learning process especially among the ESL learners in Malaysia should be further researched. The cognitive theory where this study is developed from suggests that the learning process involves thinking, and the learner is an active information processor. Therefore, the source of knowledge, or known as language input is required as the stimulus to instigate the cognitive process, without which there will not be any information to process. This also proves that the right and effective learning module for the specific learners is essential to prompt efficient learning strategies. As the language input stimulates motivation through the evaluation of expectancy-value, it inspires the choosing and implementation of memory strategies as the information processing technique to reach the ultimate goal of the learning process which is to achieve language ability. Structure building framework by (Gernsbacher, 1991, 1997) was reviewed to understand how memory development works, while rote memorization and memorizing for comprehension should be distinguished for the best quality of language learning to achieve the learning outcome. Understanding the differences between the two types of memorization is important as it influence the materials development by ESL instructors, where materials that promote memorizing with comprehension is more preferable than rote memorization, especially in the long-term learning context.

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