

MULTILINGUAL'S INCIDENTAL ACQUISITION OF NOVEL WORDS WITH LEXICAL CUES IN L1 AND L2

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ABSTRACT

The purpose of this study was to examine how multilinguals incidentally acquire novel words with lexical cues given in their first language (L1) and second language (L2). This study was conducted by obtaining quantitative data from a post-test. The population of this study were 252 Chinese multilingual Malaysian university students whose L1 is Mandarin. The L2 of participants are English in which they have undergone formal English education since primary school. The findings from the post-test results indicates that participants acquire novel words in L2 better when accompanied with lexical cues in their L1 as compared to cues in their L2. The L2 proficiency of participants did not show any significant effect when it comes to incidental acquisition in both L1 and L2 conditions. The use of L1 cues leads to higher incidental vocabulary acquisition despite the differences in L2 proficiency of participants compared to L2 cues. This study makes two contributions to research in language acquisition: Methodologically, this research aims to look into alternative vocabulary acquisition strategies namely the use of L1. Empirically, this study sheds light on how multilinguals incidentally acquire vocabulary when given cues in L1 and L2 with implications for future research and classroom practice.

Keywords: L1 & L2; Lexical cues; multilingual; novel words; translanguaging

1. INTRODUCTION

Before we begin to talk about second language acquisition (SLA), we must first know how the multilingual mind works. The multilingual, unlike the monolingual, is in possession of multiple languages, mainly their mother tongue (L1) and the second language (L2). Research on the multilingual has gained significant traction over the years (Lin & Lei, 2020).

Although the role of L1 in a multilingual language has always been debated, language teaching still relies heavily on conventions created in the nineteenth century (Cook, 2019). However, these outdated conventions are not supported by the recent view of second language education (Cook, 2019) and have negative repercussions to SLA. The lack of data itself to maintain or disallow the L1 in an L2 class, causes educators to face difficulty in making informed choices when it comes to appropriate language use in classrooms. As such, this issue is a constant source of problematic debate among linguists as well as educators (Almoayidi, 2018).

This research aims to offer new understandings that can be of use to students, educators and policy makers. This research seeks to provide evidence on L1 and its contribution to improved comprehension and retention of words when compared to L2. This research looks to shed light into the ongoing debates surrounding L1 and its position in ESL classrooms. This research aims to look into alternative vocabulary acquisition strategies namely the use of L1. This research will also look to tackle the matter that there are not enough studies when it comes to how multilinguals process texts as specified by Ellis (2008). This study aims to suggest an alternative method in language education from the current language education policy in Malaysia which adopts the monolingual education method which treats the L1 and L2 as two separate languages in the language user.

2. LITERATURE REVIEW

2.1 ESL Classrooms in Malaysia

Multilingualism has been a big focus in Malaysian education as the ministry of education is pushing for the fluency of both the Malay language (Malaysians' national language) and English (Malaysians' second language).

Although that is the case, Malaysia has always emphasized that only English should be used in English classrooms. This approach entails that only L2 is used in interacting with students while any communication in L1 is discouraged (Cummins, 2005).

This policy adopted in our education ensures that the use of students' L2 is maximised while the L1 is highly discouraged. This policy can be viewed clearly when the then Deputy Education Minister, YB Chong Sin Woon, states that language educators have to abstain from utilizing students' L1 in the English classroom (Jalil, 2015). In the most recent Malaysia Education Blueprint 2013 – 2025, it is stated that Malaysia will employ “full immersion” in Bahasa Malaysia classes. The blueprint also stated that structural changes will be done to English classes to create a “more immersive English language environment”. Immersion here carries the meaning that the target language will be used fully and other languages in the classroom must be avoided. This statement goes on to show that Malaysian language education adopts the policy of the separation of language.

Understanding a context in which to provide English education is important. We need to have a sense of how English is viewed among the locals (Hazita Azman, 2009).

2.2 Use of L1 and L2 in the Classroom

Different views on the use of L1 in an L2 classroom comes from multiple clashing views in SLA. One prominent view against L1 use is to provide students with the maximum amount of L2 input. This is based on the view that students lack the chance to use their L2 outside of the classroom environment. (See, e.g. Cook, 2001; Ellis, 2008). Another view is that the overuse of L1 might cause students to lose enthusiasm to use their L2 (Nation, 2003). Some other assumptions can be summarised as below:

- 1.** L2 learning must follow the learning model of L1 in which L2 is maximised
- 2.** Separation of L1 and L2 is necessary for successful learning to occur.
- 3.** The continuous use of L2, will highlight its importance to learners.

There is however a growing number of researchers who are in support of the use of L1 in SLA classes. Support of this comes from the multilingual perspective (e.g. García 2014). Studies have argued on the major part that L1 plays in forming student's identity and that the separation of L1 from L2 will not make the L1 disappear but only causes it to be invisible to educators (e.g. Anton & DiCamilla, 1998; Auerbach, 1993; Cook, 2001, 2013; Creese & Blackledge, 2015). Students happen to use the L1 as a means of learning in SLA classes. The thoughts of students are connected to their vocabulary production. Failing to understand this would cause the learning of a language to be stunted (Anton & DiCamilla, 1998). The use of L1 and L2 in the classroom serves to reflect the entire communicative repertoire of language users when making meaning (Chau, 2015; García, 2014).

It is important to have a set of guidelines which are informed by research which might be useful for educators (Macaro, 2001). Ellis (2008) states that one important area that needs research is how the use or non-use of L1 affects L2 acquisition.

2.3 A New Perspective of the Multilingual

Many language educators do not have a full grasp of the ideological or empirical consequences of the monolingual norms and assumptions they apply in their work (Leung & Valdés, 2019). While the debate on the use of L1 in classrooms continues, a rising number of scholars calls for a moderate attitude when considering using L1. A more encompassing view of the multilingual is needed. One that empowers multilinguals and gives the agency of language learning back to them (cf. Cook, 2013; García, 2014; Man & Chau, 2019; Ortega, 2018; Tham, Chau and Thang, 2020). The multilingual language cannot be properly understood using conventional methods of language education and there is a need to find a different view which can create a healthier educational climate (Otheguy, García and Reid, 2019). One such emerging view of the multilingual is through the framework of translanguaging.

2.4 Translanguaging

Translanguaging refers to the flexible use of the bilingual repertoire (Lopez, Turkan & Guzman (2017). It is a theoretical lens that provides a new approach to multilingual education (Vogel & García, 2017). Vogel and García (2017) writes that while the traditional education method looks at multilinguals as having multiple autonomous systems of language, translanguaging looks at multilinguals as possessing a unitary linguistic repertoire which is applied to meaning making and to navigate communicative contexts. Translanguaging is also an approach to language pedagogy that confirms and utilises learners' dynamic language practices. It is used by multilinguals to make sense and meaning of the multilingual world (García, 2011) and to smoothly transition between their languages in their pursuit of knowledge (Joseph & Ramani, 2012) Translanguaging also serves to re-examine the unanswered question on the role of L1 in language education (Wei, 2018). Only by purposefully removing the artificial idea that divides the concept of L1 and L2, translanguaging empowers the learner and educator and returns the process of language education on meaning making (Creese & Blackledge, 2015).

2.5 Incidental Vocabulary acquisition

The meaning of incidental vocabulary acquisition used in this study is similar to the definition used by Hulstijn (2001) which is defined as the process in which learners obtain knowledge of a word from reading without expecting to be tested.

As the time spent learning vocabulary in the traditional classroom is not sufficient (Schmitt, 2008), there is a need for more chances for learners to acquire language. The importance of incidental

vocabulary acquisition must not be overlooked as most vocabulary acquisition comes from incidental reading (Nagy & Anderson, 1984).

2.6 Vocabulary of L2 Users

One major part of language acquisition is vocabulary acquisition (Nation, 2013; Schmitt, 2010). However, studies that investigate the connection between the role of L1 and L2 in vocabulary acquisition are lacking. One study by Na and Nation (1985) looked at vocabulary guessing in context and components that affect it. The research instructed participants to predict the meaning of novel words based on context. Participants were more successful in guessing words when given in higher numbers in the text. Na and Nation's (1985) study indicates that learners learning an L2 do not learn it in a similar manner as compared to their L1. Instead, learners use their existing L1 as a mediator. Ames (1996) studied the success rate in which participants manage to guess words from context. Ames used glosses where they were explained using their L1 and L2. His research indicated that participants remembered L2 words better when provided alongside their L1 equivalent.

Ammar and Lightbown's (2005) study indicated that providing both L1 and L2 aids learners in acquiring L2. This study is also supported by Lotto and de Groot (1998) where participants were given a post-test which asked them to recall words. This study found that using L1 and L2 pair words with participants encouraged higher acquisition of L2 vocabulary. Shieh and Freiermuth (2010) investigated the use of dictionary on student's reading comprehension. That study found that providing students with aid to reading in the form of bilingual L1-L2 and monolingual L2 dictionary performed significantly better than those with no access to a dictionary.

When it comes to more proficient L2 learners, it has been shown that they tend to link new vocabulary with their L1 correspondence (Van Hell & Mahn, 1997). Jiang (2004) suggested that L2 learners use their pre-existing native language to create associations with new vocabulary items.

This study aims to contribute to the literature by studying multilinguals' incidental acquisition of novel words when provided cues in their L1 and L2.

This study is based on the following research questions:

1. To what degree does supplying L1 and L2 cues aid in incidental vocabulary acquisition?
2. To what degree does students' English level proficiency affect their incidental vocabulary acquisition when provided cues in either L1 or L2?
3. How does the type of cues affect students with different proficiency in terms of vocabulary acquisition?

3. MATERIAL AND METHODS

3.1 Participants

The participant of this study consists of 252 undergraduate students from a private university in Malaysia. They were second- and third-year students majoring in various fields. The average age of participants was 21 years. Participants consisted of 94 females and 158 males. Participants were Chinese students with their L1 being Mandarin and L2 English. Participants all have at least six years of formal Mandarin education. They all scored within the range of A+ and E for their English paper in their Sijil Pelajaran Malaysia (SPM). Sampling method used in this study was simple random sampling. This method is chosen as it reduces selection bias (Creswell & Creswell, 2018).

3.2 Instruments

The instrument used for data collection in this study was reading materials and post-test questions. Post-test questions were used to obtain quantitative data.

3.3 Reading Materials

The reading materials were adapted from Tham et al. (2020). Six paragraphs in English were chosen from that study. The reason six paragraphs were chosen and not more was because a study which employs incidental acquisition with lengthy texts is not ecological valid (Elgort & Warren, 2014) To ensure participants understood all items in the paragraphs, the text underwent some processes before they were given to participants. First, VOCABPROFILE (Heatley, Nation, & Coxhead, 1994) was used to analyse the paragraphs. Words that were classified in the 2,000 most frequent words were kept while those not within this range were considered for substitution. Flesch Reading Ease test was also used where all paragraphs were given a score of 60 to 19.4 which indicated a reading level suitable for a high school graduate (CheckText.org., 2015).

A pilot study was also conducted by recruiting five participants to read each paragraph. Participants were asked to indicate words which they do not understand. Words which were indicated were considered for substitution.

3.4 Novel Words

Novel words are not real words which were created to be orthographically similar to English words. Novel words were included in paragraphs accompanied by their meaning in either L1 or L2. The purpose of novel words was for vocabulary control purposes. According to Webb (2007) novel words serves to eliminate sensitivity towards target words. This is to ensure that participants have not encountered such words outside of the experiment. This research controls parts of speech by replacing only nouns with novel words similar to the study conducted by Godfroid, Boers and Housen (2013). The selection of novel words used in this research were obtained from Godfroid et al. (2013) and Webb (2007).

3.5 Post-test Questions

A post-test adapted from Tham et al. (2020) was given to participants after the reading task. To ensure incidental vocabulary acquisition, participants were not told of the post-test. The test includes 10 multiple choice questions (five testing L1 and five testing L2). The amount of target words is in line with similar studies done on incidental language acquisition (e.g. Godfroid et al., 2013, Tham et al., 2020, Webb, 2005). The questions were designed to test meaning and form. Maximum obtainable scores for each L1 and L2 conditions were five. Words in the post-test were similar as appeared in the reading task but replaced by means of para-phrasing where the context of the original paragraphs were maintained. An empty line replaces the Novel words. Participants had to circle the correct answer out of the four choices provided. Only one answer is correct while the other three were distractors consisting of novel words participants come across during the reading task. Distractors from novel words and paraphrased questions ensures that orthographic form recognition of words

that looked familiar was not enough for participants to choose the right answer (Godfroid et al., 2013). Participants had to choose the right answer with the correct meaning bearing context which they read in the text. The reason multiple choice questions were used was because studies on incidental learning which focused on acquisition of novel words were assessed using this method (Pellicer-Sánchez, 2016).

3.6 Research Procedure

This research adapted the methodology used in Tham et al. (2020). Participants read six paragraphs in English. Each paragraph contained a maximum of two novel words and a minimum of one novel word with a total of ten novel words. Of all the ten novel words which appeared in the paragraphs, five were paired with their meaning in L2 and the other five paired with their translation in L1.

Table 1: Two conditions illustrated with an excerpt of one paragraph

Condition	Example
1. Novel words + L2	Wiseman interviewed the political SCRANDIVIST (REPORTER) Robin Day, asking him about his favorite film.
2. Novel words + L1	The sound of chart-topping albums is making STAVENERS (听众) feel sick.

Note: The target areas have been capitalized in Table 1 for reference but appears in regular print in the actual experiment

This research utilises a repeated measures design where one group of participants take part in both conditions of the independent variable. The reason for using repeated measures design is because this method allows for a reduction in the participants variables or individual difference which allows for a more accurate result in the post-test. To prevent order effects, this study counterbalances the order of conditions for participants. This step alternates the order in which conditions are given to participants. Out of the 252 participants, 126 will begin the experiment with the L1 condition followed by the L2 condition. Meanwhile, the remaining participants will begin the experiment with the L2 condition followed by the L1.

To answer all three research questions, a surprise post-test was given to participants as soon as they completed the reading task. A time limit was not set for participants to complete the post-test. All quantitative data were analysed in SPSS version 23. Participants' correct answers were analysed based on the mean of correct answer using paired a sample t-test. Analysis was also done on participants' results based on their SPM English paper score. Participants were divided into groups of three: Good (A+, A & A-), Average (B+ & B) and Poor (C+ & below) based on their results in their SPM English paper and were compared based on their score in the post-test using an ANOVA. A paired samples t-test was conducted between each group to test for any significance for the L2 and L1 condition.

4. RESULTS AND DISCUSSION

4.1 Results

The skewness and kurtosis for the results of the post-test for L2 and L1 conditions are normal as it falls under the range of -1.5 to +1.5. It has a normal distribution.

Participants' mean incidental language acquisition on novel words accompanied by their L2 cues was 2.45. The mean for participants' incidental language acquisition on novel words accompanied by their L1 cues was 2.81. The variation of scores for L2 and L1 conditions were $SD = 1.420$ and $SD = 1.362$ respectively.

A paired-samples t-test was conducted to compare participants' incidental vocabulary acquisition for novel words between L2 and L1 conditions. A significant difference was found in the scores for the L2 and L1 conditions; $t(251) = -3.89, p < 0.001$.

A paired-samples t-test was conducted to compare incidental vocabulary acquisition for novel words between L2 ($M = 2.45, SD = 1.39$) and L1 ($M = 2.85, SD = 1.43$) conditions for participants with good English proficiency. A significant difference was found in the scores for the L2 and L1 conditions; $t(73) = -2.43, p < 0.05$.

A paired-samples t-test was conducted to compare incidental vocabulary acquisition for novel words between L2 ($M = 2.49, SD = 1.46$) and L1 ($M = 2.79, SD = 1.40$) conditions for participants with average English proficiency. A significant difference was found in the scores for the L2 and L1 conditions; $t(111) = -2.12, p < 0.05$.

A paired-samples t-test was conducted to compare incidental vocabulary acquisition for novel words between L2 ($M = 2.38, SD = 1.41$) and L1 ($M = 2.79, SD = 1.22$) conditions for participants with poor English proficiency. A significant difference was found in the scores for the L2 and L1 conditions; $t(65) = -2.23, p < 0.05$.

A one-way ANOVA was performed to compare the effect of English proficiency on post-test scores in the L2 condition. A one-way ANOVA revealed that there was no statistically significant difference in mean post-test scores between all three groups ($F(2,249) = [0.13], p = 0.88$).

A one-way ANOVA was performed to compare the effect of English proficiency on post-test scores in the L1 condition. A one-way ANOVA revealed that there was no statistically significant difference in mean post-test scores between all three groups ($F(2,249) = [0.06], p = 0.94$).

4.2 Discussion

The main focus of this article has been to study how multilinguals' incidentally acquire novel words when provided cues in their L1 and L2. The first research question asks the degree to which supplying L1 and L2 cues aid in incidental vocabulary acquisition. It was found that based on the post-test scores, the participants did better in the L1 condition as compared to the L2 condition. This indicates that although the paragraphs were given in the participants' L2, the provision of L1 cues contributes to better acquisition of L2 vocabulary as compared to the provision of L2 cues. The results go against the belief that L1 acts as a disruption towards L2 learning (Ellis, 1986). The results also contradict the study of Tham et al. (2020) which indicates that there are no significant differences in incidental vocabulary acquisition when participants were provided cues in L1 or L2.

The second research question asks about the degree to which students' English level proficiency affects their incidental vocabulary acquisition when provided cues in either L1 or L2. Based on the post-test scores, students across all levels of English proficiency showed a significant improvement in post-test scores when provided with L1 cues as compared to L2 cues. This indicates that the use of students' L1 with the aim to increase incidental acquisition of vocabulary is an effective method across students of different L2 proficiency. This result adds to the study done by Siti Hamin Stapa & Abdul Hameed Abdul Majid (2006) who stated that students' L1 could aid in promoting literacy in lower proficiency students. This study expands the scope to also include the benefits of L1 towards higher proficiency students.

The final research question asks if the type of cues affect students with different proficiency in terms of vocabulary acquisition. The ANOVA performed on all levels of students' proficiency in both L2 and L1 conditions showed that the incidental vocabulary acquisition of students is similar despite different levels of L2 proficiency. This indicates that the L2 proficiency of students does not influence the acquisition of novel words when given cues in either L2 or L1. The results support the findings of Razina Abdul Rahman (2005) who investigated the use of translation as an aid to students learning in English where students who use their L1 to explain difficult passages in L2 improves on their understanding of the text.

Results of this study supports the view of appreciating the language practice of the multilingual identified in theories such as translanguaging (e.g. García, 2014) and languaculturing (e.g. Chau, 2015). The results support the argument that multilinguals make use of their full communicative repertoire in meaning making based on the needs which arise. The use of L1 in an L2 classroom is an opportunity for students to expand their vocabulary rather than a hindrance (Tham et al., 2020).

5. CONCLUSION

A number of interesting findings have been observed in this paper on multilinguals' incidental acquisition of lexical cues in L1 and L2. The results of this research indicates that multilinguals incidentally acquire vocabulary better when given cues in their L1. There is little proof which indicates that students' L1 disrupts their acquisition of L2 vocabulary. The results supports the view that language users use their entire complex linguistic repertoires based on situations which arise.

Furthermore, the benefits of using L1 in an L2 classroom may benefit all students regardless of L2 proficiency. This research calls for the need to consider a more flexible approach in SLA classrooms when it comes to teaching and learning for multilingual students. The results in this study allows for educators to reflect on ways to support and enhance the learning process of multilingual students. The use of L1 in a multilingual student should not be suppressed but rather allowed and even encouraged in order for them to play an active role in their language learning. This study is not discouraging the use of L2 in SLA classrooms, but rather, encouraging the language learner and educators to employ the full linguistic repertoires of multilinguals. It is time for SLA classrooms to employ a more encompassing view of the multilingual; a view which returns the agency of learning back to them and one that empowers them (cf. Cook, 2013; García, 2014; Man & Chau, 2019; Ortega, 2018).

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