An Assessment of Tamil Phonology Acquisition in Second Language Learning Context

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Abstract

Second language acquisition, or sequential language acquisition, is learning a second language after a first language is already established (Krashen, 1981). The field of second language, L2 acquisition research always has been associated to understand the underpinnings of second language grammars and the factors that influence the development of those grammars. While this is a wide ranging area of interest, this paper emphasis on the common patterns of grammars of Tamil as second language in particular to phonological acquisition. It is unknown whether it could be easier for a learner of a non-quantity language to Tamil quantity if this feature would instead delay or disturb the acquisition. Therefore, the current research assess the acquisition of Tamil phonology Tamil by the Malay learners. A clear asymmetric pattern of acquisition between both the tests emerged that the subjects were able to acquire the non-identical Tamil phonology from Malay by sound than the form or structure. This is because, majority of the subjects were found that they are able to identify by sound the correct form or structure of the two vowels /ai/ and /ao/ though these vowels are not available or identical in L1. In contrast to this, majority of the subjects were not able to give a correct response to these vowels in the oral test. This shows that the subjects acquire the non-identical or new vowels through sound by identifying the forms than saying it out. Alongside with this findings, it is also found that the subjects were able to acquire the long vowels which is not available in the L1.

INTRODUCTION

The field of second language, L2 acquisition research always has been associated to understand the underpinnings of second language grammars and the factors that influence the development of those grammars. While this is a wide ranging area of interest, this paper emphasis on the common patterns of grammars of Tamil as second language in particular to phonological acquisition. It is unknown whether it could be easier for a learner of a non-quantity language to Tamil quantity if this feature would instead delay or disturb the acquisition. Therefore, the current research assess the acquisition of Tamil phonology Tamil by the Malay learners.

What is a Second Language

Second language acquisition, or sequential language acquisition, is learning a second language after a first language is already established (Krashen, 1981). Many times this happens when a child who speaks a language other than their mother tongue goes to school for the first time. Children have an easier time learning a second language, but anyone can do it at any age.

Linguistics Assumptions

Successful acquisition of phonological contrasts presupposes their accurate perception. While adult learners of a second language are known to have difficulty discriminating between certain vowel and consonant sounds that are not employed contrastively in their own language, children do this with remarkable ease (Eimas et al. 1971; Jusczyk 1997).

There is variation in the *degree* of difficulty with which non-native vowel and consonant sounds are perceived, which has led to questions about the relationship between the L1 and L2 grammars such

as: what factors determine ease of acquisition, and on what level does the L1 vowel and consonant sounds influence the developing L2 vowel and consonant acquisition?

Research in this area has resulted in several models of L2 speech perception. For example, it has been suggested that the degree of difficulty in phonological acquisition directly relates to the degree of perceived phonological similarity or dissimilarity between L1 and L2 sounds (Flege 1995), with more similar vowel or consonant being the most difficult to acquire, thereby inhibiting the learner from setting up new phonological categories.

Models in the generative framework argue that the presence or absence of phonological features in the L1 plays a role in the difficulty a learner may have acquiring certain second language speech contrasts (Brown 1998, 2000). This model predicts that if learners lack a particular feature in their L1 grammar that is used to 215 distinguish an L2 contrast, they will be unable to acquire that phonological sounds.

Origin and Development of Tamil Language

Tamil belongs to the southern branch of the Dravidian languages, which alongside Tamil proper, also includes the languages of about 35 ethno-linguistic groups. Tamil has the oldest extant literature amongst the Dravidian languages.

Tamil Phonology

Tamil phonology is characterised by the presence of retroflex consonants, and strict rules for the distribution within words of voiced and unvoiced plosives. Tamil phonology permits few consonant clusters, which can never be word initial. Native grammarians classify Tamil phonemes into vowels, consonants, and a "secondary character", the āytam.

Vowels

Tamil vowels are called *uyireḻuttu* (*uyir* – life, *eḻuttu* – letter). The vowels are classified into short (*kuṟil*) and long (five of each type) and two diphthongs, /ai/ and /au/, and three "shortened" (*kuṟṟiyal*) vowels.

The long (*neṭil*) vowels are about twice as long as the short vowels. The diphthongs are usually pronounced about 1.5 times as long as the short vowels, though most grammatical texts place them with the long vowels. A chart of the Tamil vowelsin the International Phonetic Alphabet is as follows:

	Short			**Long**		
	Front	**Central**	**Back**	**Front**	**Central**	**Back**
Close	i		u	iː		uː
	இ		உ	ஈ		ஊ
Mid	e		o	eː		oː
	எ		ஒ	ஏ		ஓ
Open		a		(æː)	aː	(ɔː)
		அ		ஐ	ஆ	ஔ

Figure 1 Tamil Vowels

Consonants

Tamil consonants are known as *meyye̲luttu* (*mey*—body, *e̲luttu*—letters). The consonants are classified into three categories with six in each category: *valli̲nam*—hard, *melli̲nam*—soft or Nasal, and *iṭayi̲nam*—medium.

Unlike most Indian languages, Tamil does not have aspirated consonants. In addition, the voicing of plosives is governed by strict rules in *centamil̲*. Plosives are unvoiced if they occur word-initially or doubled. Elsewhere they are voiced, with a few becoming fricatives intervocalically. Nasals and approximants are always voiced.

A chart of the Tamil consonant phonemes in the International Phonetic Alphabet is as follows:

	Labial	Dental	Alveolar	Retroflex	Palatal	Velar
Plosive	p (b)	t̪ (d̪)		ʈ (ɖ)	tʃ (dʒ)	k (g)
	ப	த		ட	ச	க
Nasal	M	n̪	n̺	ɳ	ɲ	ŋ
	ம	ந	ன	ண	ஞ	ங
Rhotic		ɾ̪	r			
		ர	ற			
Lateral		l̪		ɭ		
		ல		ள		
Approximant	ʋ			ɻ	j	
	வ			ழ	ய	

Figure 2 Tamil Consonants

Consonants in brackets are voiced equivalents. Both voiceless and voiced forms are represented by the same character in Tamil, and voicing is determined by context. The sounds /f/ and /ʂ/ are peripheral to the phonology of Tamil, being found only in loanwords and frequently replaced by native sounds. There are well-defined rules for elision in Tamil categorised into different classes based on the consonant which undergoes elision.

THE STUDY

The purpose of this study is to assess phonological acquisition of Tamil learners of Malay. Firstly the researcher intends to investigate the vowels identification by the subjects. Secondly, the researcher intends to determine whether the learner can identify the form of the vowels that they listen.

The research questions for this study are as follow:
1. Do the Tamil learner of Malay acquire Tamil vowels?
2. If they do, what is the most common vowels?

METHODOLOGY

The Subjects

The subjects are 23 Tamil learners of Malay (15 Girls and 8 Boys) aged seven years old. The subjects are limited to students of SK Behrang 2020, Wawasan Class. The subjects undergone Tamil lessons every Thursday for the duration 40 minutes. All the subjects were considered to be functional monolinguals as described by Best and Tyler (2007) in that they were not actually using a L2 or in the process of learning a L2. The subject's parents also use Malay to communicate with them at home.

As functional monolinguals, they were expected to have difficulty acquiring or categorizing phonetics contrasts of non-native languages that are not used to distinguish phonetics in their native language. The Malay speakers were all residents of Tanjong Malim district. All participants reported having no experience with Tamil as a second language.

DATA COLLECTION PROCEDURE

Data were collected during a regular class time in three cycles for each test over a period of two months. Data collection began in fourth week of the October month as it marked the last month of the academic term though November is the last month. This is because the subjects will be sitting for the year end examination at the November month and it is considered as not a suitable month to collect the data. The data collection is done on October to ensure that the subjects had sufficient time exposure to acquire the Tamil phonology.

Tests

Two types of phonological screening tests were administrated as techniques to assess the subject's Tamil phonological acquisition. The tests required the subjects to identify the vowels that they have listened and also to pronounce them orally. These tests allowing the researcher to examine the vowel that the subject has acquired. Both the test is administrated to one at a time which took 15 minutes for each subject. Each vowel will be displayed or played two times and for the duration of 30 seconds. All the answers will analyzed based on the correct responses only.

In part A, the subjects are required to identify the vowels. This is done by played the pronunciation sound of the vowels while all the vowels is being displayed on a computer's screen. The subjects are required to identify the vowels that they have listened through the headphones. Each of the subject's answer will be noted by the researcher. This test is aimed to identify the subject's understanding of the vocals forms.

In part B, is named oral test. For this test, the researcher displaying one by one all the vowels. The subject has to say it out the vowels which is being shown by the researcher. This test is to identify the subject's correct pronunciation of each vowels.

Prior to implementing the screening test, it was subjected to validity testing. Establishing the validity of assessment tests is an important part of the research process. Backman and Palmer (1996) suggest that establishing text validity requires an analysis of the degree of correspondence between the test task and the target language use domain, where the learner's ability might be generalized beyond the assessment context to a real life situation.

To this end, the content of the validity of the phonology transcription was established by two experienced professors in the field of Tamil language teaching and learning who confirmed the screening test level to be equivalent to the subject's comprehension level. In order to avoid distraction from outside classroom, the researcher provided the subjects with a quiet lab room where both the researcher and the subject can listen all the vocals clearly.

RESULTS AND INTERPRETATION

The data were analyzed with basic statistics from descriptive perspectives. The method of data analysis for the vowel test were identical. Analyzing the subject's Tamil phonological acquisition data, the number of correct responses to the both type of test question were used as a measure of the subject's phonological acquisition.In the descriptive analysis the researcher used frequency counts. Percentages were then calculated based on the frequencies of correct identifications or pronunciations number of Test 1 and 2 is as shown below:

$$\text{Percentage of correct identification Or Percentage of correct pronunciation} = \frac{\text{Identification or Pronunciation}}{\text{Sum total of test items}} \times 100\ \%$$

Figure 3 Calculations of Frequencies

A comparison was made between the scores of each vowels. This is done because the ranking of each vowels from the highest to the lowest frequencies will help the researcher to identify high to low acquired vowels.

Vowel Identification Test

As for the first part, the vowel identification test was administrated. The test comprises of 6 vowels. Table 1 summarizes the total number and percentages for correct identification of the vowels.

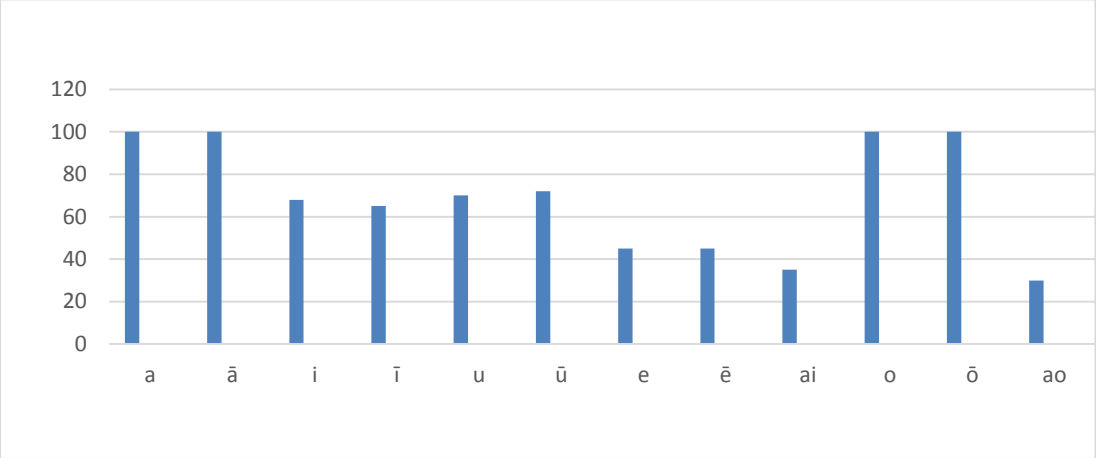

Table 1 Correct Vowel Identification

It is found that vowels *a*, *ā*,*o* and *ō* have scored 100% as all the subjects have made the correct identification. The second highest correct vowel identification are of vowels *u* and *ū* which have obtained scores of 70% and 72% respectively. Following this, vowels *i* and *ī* have obtained score of 68% and 64% respectively in this identification test. Vowels *e* and *ē* have obtained slightly lower scores than the previous that is 45% respectively. The next one is second least score of the vowel *ai* with a score of 40%. Finally the least correct identification of the vowel is for *ao* with a score of 35% only.

In overall, the data for the correct identification of vowel revealed that two vowels *a*, *ā*, *u* and *ū* were acquired by all the subjects and followed by vowels, *e, ē,i* and *i*. The highest scores are probably due to the identical sounds and forms of vowel in the native language, Malay which also has *a*, and *o*.

Oral Test

As for the part two, the oral test of Tamil vowels was administrated. The test comprises of 6 vowels. Table 2 summarizes the total number and percentages for correct pronunciation of the vowels.

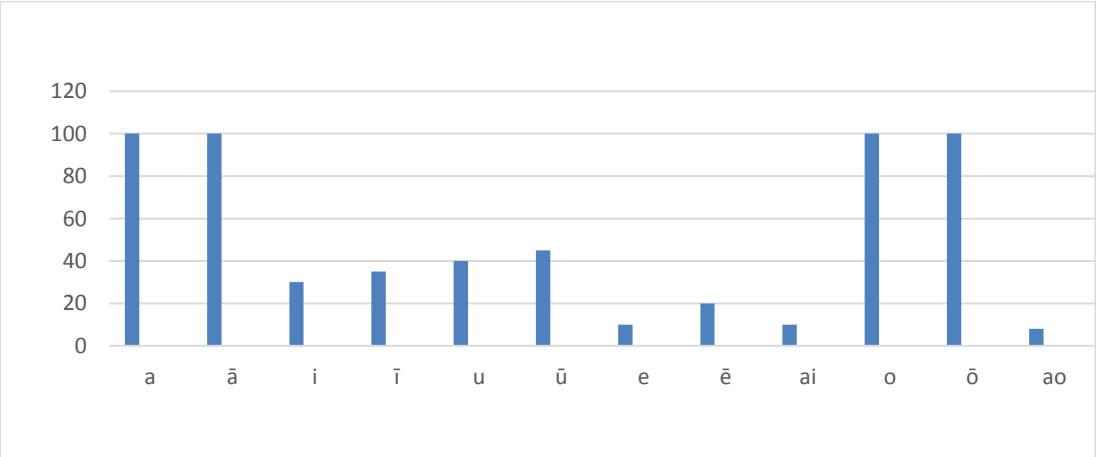

Table 2 Correct Vowel Pronunciation

It is found that vowels *a*, *ā*, *o* and *ō* have scored the highest scores, that is 100% as all the subjects have made the correct pronunciation. The second highest correct vowel pronunciation are of vowel *u*and *ū* which obtained scores of 40% and 45% respectively. Following this the vowels i and i̊ have obtained lower scores than the previous, 30% and 35% scores respectively. The vowels e and ē have obtained 20% and 10% scores respectively. The next is second least score of the vowel *ai* with a score of 10%. Finally the least correct pronunciation of the vowel is for *ao* with s score of 8% only.

In overall, the data for the correct vowel pronunciation has revealed that four vowels *a*,*ā*, *o* and *ō* were acquired by all the subjects and followed by almost half of the subjects have acquired the vowels *u, ū, i* and *ī* with scores less than 50%. The highest scores are probably due to the identical sounds and forms of vowel in the native language, Malay which also has *a* and *o*. It is also found that the leaners have scored on average less scores for the rest of the vowels except vowels *a, ā, o* and *ō* than in vowel identification test.

Another interesting finding from this study is the subjects were able to produce not only identical L2's short vowel of L1 but also long vowels which are not available in the L1's phonological systems. This shows that the subjects can acquire non-identical phonology of any L2.

CONCLUSION

The present study investigated the Tamil phonological acquisition of Malay subjects in the second language context. A clear asymmetric pattern of acquisition between both the tests emerged that the subjects were able to acquire the non-identical Tamil phonology from Malay by sound than the form or structure. This is because, majority of the subjects were found that they are able to identify by sound the correct form or structure of the two vowels /ai/ and /ao/ though these vowels are not available or identical in L1. In contrast to this, majority of the subjects were not able to give a correct response to these vowels in the oral test. This shows that the subjects acquire the non-identical or new vowels through sound by identifying the forms than saying it out. Alongside with these findings, it is also found that the subjects were able to acquire the long vowels which is not available in the L1.

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