The Adaptation Strategies of English Loanwords among Kelantan Malay Dialect Speakers

SAKINAH NIK MUHAMMAD NAZIMAN

SHARIFAH RAIHAN SYED JAAFAR
Faculty of Social Sciences and Humanities
Universiti Kebangsaan Malaysia
s_raihan@ukm.edu.my

ABSTRACT

This paper discusses the adaptation strategies when the Kelantan dialect speakers borrow words from English. It also discusses the findings for loanwords approach. There are three approaches to account for the adaptation and processing of sound-based loanwords namely Perception, Phonology or Perception-Phonology Approaches. In order to examine and determine which approach of adaption can satisfactorily account for the adaptation processes in the Kelantan dialect of Malay, the source of input is examined. Data for this research were obtained from two sources: a previous study from Shapri (1980) and observations which were carried out in Kota Bharu, Kelantan. There were 113 and 55 words from Shapri (1980) and from observation, respectively, as used for this study. Data analysis shows that four adaptation strategies were applied in the Kelantan dialect of Malay. These are consonant substitution, consonant deletion, debuccalisation, vowel epenthesis and final consonant clusters simplification. Considering the source of input and the adaptation strategies, the adaptation process in Kelantan Malay dialect is mostly phonological. Hence, this proves that the phonological Approach could better explain how English loanwords are processed in the Kelantan Malay dialect. The discussion on English loanword adaptation strategies has its implications to Malay grammar and future phonological theory. Some phonological patterns occur in the Kelantan Malay dialect whereas they are not formally stated and have never been discussed in the phonological system of the dialect.

Keywords: loanwords adaptation; Malay; Kelantan Malay dialect; English; phonology

INTRODUCTION

This paper examines the adaptation strategies when English words are borrowed into the Kelantan Malay dialect. The process of borrowing words from one language to another is a common process as every language in the world has borrowed from other languages, although the degree of borrowing might be different from one to another.

The same applies to Malay whereby this language has been influenced by other languages such as Sanskrit, and then was followed by Arab in the 11th century. Since the 21st century, English has been a dominant international language which influences many other languages, Malay being one of them. English loanwords have widely been discussed by scholars working in the area of phonology, for examples, Sohn (2001), Labrune (2002), Kenstowic (2007), Schutz (1999), Chang (2009), Mheta & Zivenge (2009), Rashid et al. (2011) and many others. The discussion of English loanwords by these scholars has been focused in a various aspect of phonology such as the prosodic aspects, strategies of adaptation, source of input involved in the loanwords and so on. For example, Kenstowic (2007) claims that consonant cluster, vowel epenthesis and voiced stops substitution occur in English loanwords in Fiji. The data shows that vowel [i] is inserted at word final position to break up a consonant cluster. This is contrast to the Kelantan dialect of Malay presented in this study whereby the vowel is not only [i].

In the recent Malay literature, there are works concerning loanwords in Malay which are done by, for example, Zaharani, Nor Hashimah and Nor Faizah (2011), Zaharani, Nor Hashimah and Maizura (2013). As far as loanwords in Malay are concerned, none of the

previous studies has given formal attention to loanwords in any Malay dialect. The discussions of loanwords in Malay were merely focused on the standard Malay. It is worth mentioning that the phonological system of standard and non-standard Malay dialects is quite distinct. For instance, /r/ in word-final position in Malay is somehow disfavoured. This can clearly be seen in standard Malay itself, whereby /bakar/ 'to burn' is realised as [baka]. Meanwhile, in other Malay dialects, the word is also differently pronounced as [bakɔ] and [bakau] by the speakers of Kelantan and Melaka dialects, respectively. This phonological process of eliminating /r/ in the word-final position shows variation in Malay. Hence, it is also crucial that non-standard Malay data be investigated in terms of borrowing words as they might reveal some irregular phonological processes than standard Malay has. Thus, this study attempts to investigate loanwords in one of Malay dialects, namely Kelantan Malay dialect, by focusing on the major adaptation strategies and loanwords adaptation approaches.

Discussions on the adaptation strategies have always been associated with the three major approaches relevant to the issues of adaptation namely Perception Approach, the Phonology Approach and the Perception-Phonology Approach. The Perception Approach asserts that the changes of non-native sounds only occur at the perceptual level, while the role of phonology is indirect as it is not involved in the changes (Peperkamp & Dupoux 2003, Peperkamp, Vendalin & Nakamura 2008). However, based on the Phonology Approach, the input of the adaptation process requires access to the phonology of the donor's language, while loanwords adaptation follows category preservation/proximity principles where segment matching is based on phonological categories (Paradis & LaCharité 1997, LaCharité & Paradis 2005, Paradis 2006, Rose & Demuth 2006, Uffmann 2005).

Paradis (2006, p. 977) explains the differences between the Perception Approach and the Phonology Approach as follows:

> "The major difference between the two approaches lies in the code(s) to which borrowers have access during the online adaptation of a borrowing: for supporters of the phonological stance, borrowers have access to both linguistic codes, the LI and donor language (L2) codes, whereas for supporters of the perceptual stance, borrowers have access to the LI code only, their access to L2 being turned off during the adaptation process"

According to Paradis (2006), the main differences regarding the sources of input are, when the source of input is perception, speakers only have their own linguistic knowledge. In contrast to perception, when phonological input is concerned, speakers have linguistic knowledge of both languages – donor's and borrower's languages. Under the Perception-Phonology Approach, the input of the adaptation process is based on how the borrower perceives the acoustic signals of the source language. The perception-based input then would be modified by the phonological grammar of the borrower's language (Silverman 1992, Yip 1993, 2005, Steriade 2001, Kang 2003, Kenstowic 2005). In this study, English-based loanwords in the Kelantan Malay dialect are examined considering the three models illustrating how loanwords are adapted.

Hence, this study intends to discuss; (1) how Malay could be affected by the dominance of English through loanwords adaptation strategies employed when the Kelantan Malay dialect borrow words from English, and (2) to discuss which of the loanwords adaptation approaches (either Perception, Phonology or Perception-Phonology Approaches) can better explain the adaptation processes occur in the dialect.

ENGLISH LOANWORDS IN WORLD'S LANGUAGES

Sohn (2001) discusses English loanwords in Korean by focusing on words ending with coronal consonants /t, tʰ, s, s', c, cʰ, and c'/. When English words are borrowed into Korean, coronal consonant at word-final position would change to [t] for example, /robot/ and /format/ are realised as [ropot] and [pʰo:met], respectively. Apart from that, vowel epenthesis also occurs when English words are borrowed, as in /head/ becomes [hetɨ]. However, there is a problem when the coronal consonant is followed by [-i] 'nominative' or [-e] which are realised as [s], as shown below:

TABLE 1. English loanwords in Korean

[pʰiramitɔ]	[pʰiramit] 'piramid'
[pʰiramitɔ-ka]	[pʰiramis-i] 'piramid-nominative'
[pʰiramitɔ-e]	[pʰiramis-e] 'piramid-locative'

In the analysis, Sohn (2001) claims that coronal consonants [t] and [s] in a word-final position which occur before the surface level are influenced by the speakers' perception. How [t] and [s] are perceived through perception, however, is not explained in the analysis. He further claims that English loanwords in Korean are kept in the lexicon as a free noun, regardless of the word class in the source language. Sohn (2001) stresses the importance of perception as a source of input when it is retained in the lexicon as a free morpheme as it fulfils the prosodic requirement and is not bounded to any syllable structure requirement.

Labrune (2002) examines the prosodic structure of simple abbreviations of English loanwords in Japanese such as /terebi/→ [terebizyon] 'television' and/mentamu/ →[mensoreetamu] 'mentholetum'. Meanwhile, Kenstowic (2007) discusses word stress in English loanwords adaptation in Fiji by focusing on the auditory salience and similarity. The analysis of 800 words stress by Schutz (1999) showed that strategies such as lengthening and rhyme were applied to maintain the stress, as exemplified below:

TABLE 2. Strategies of English loanword Adaptation in Fiji

Stress adaptation	English	Fiji
lengthening	bazáar	bazá:
	cábin	kè:bíni
lapse via vowel lengthening	whísky	wísikí:
	dóctor	dòketá:

Other adaptation strategies such as consonant clusters, vowel epenthesis and voiced plosive substitution were also discussed by Kenstowic (2007). Consonant clusters have always been resolved by vowel epenthesis, while the final consonant in the cluster would always be shortened when it is in word-final position as shown below. Kenstowic (2007) however, has not given any phonological explanation why the final consonant is shortened.

TABLE 3. Consonant cluster adaptation in Fiji

Adaptation strategy		English	Fiji
1)	Vowel epenthesis	steak	sitéki
		ulcer	àlasá:
		fi**lm**	fi:límu
2)	Shortening	serge**ant**	sà:tíni
		almo**nd**	à:módi

3L: The Southeast Asian Journal of English Language Studies – Vol 24(4): 128 – 142
http://doi.org/10.17576/3L-2018-2404-10

Besides Korean, Japanese and Fiji, English is also borrowed into Burmese. According to Chang (2009), four main adaptation strategies were utilised in the borrowing practice. Firstly, non-native phoneme would be replaced by the native form when it does not exist in the Burmese phoneme inventory. The following examples illustrate how English phonemes such as /f/, /v/, /æ/ and /ɔi/ would become [pʰ], [b], [ɛʔ] and [bwãĩ], respectively in Burmese.

TABLE 4. English Phonemes adaptation in Burma

Phonemes substitution	English	Burma
/f/ → [pʰ]	feeling	[pʰi.lĩ]
	film	[pʰə.lĩ]
/ʒ/ → [ʃ]	Asia	[ʔà.ʃa]
	Malaysia	[mə.léi.ʃã]
/ae/ → [ɛ]	Jack	[dʒɛʔ]
	captain	[kɛʔ.pə.tèĩ]
/ɔi/ → [wãi]	boy	[bwãĩ]
	joy	[dʒwãi]

Secondly, the presence of consonant in a coda position would be transformed into: (1) Obstruent in a coda position would be substituted by a glottal stop. In this case, all types of obstruent consonants would undergo debuccalisation regardless of its voicing feature, (2) nasal segment in this position would change into a nasalised vowel and (3) the lateral consonant would be deleted. The three consonant adaptation strategies are presented below:

TABLE 5. English Coda consonant adaptation in Burmese

Coda consonant	English	Burmese
1) Coda obstruent	make-up	[meʔ.kʌʔ]
	tibet	[ti.bɛʔ]
	march	[maʔ]
	club	[kəlʌʔ]
2) Coda nasal	auntie	[ʔã.ti]
	rum	[jã]
3) Coda lateral	April	[ʔèi.pji]
	e-mail	[ʔi.méi]

Thirdly, there are two ways to solve consonant cluster in English loanwords in Burmese: (1) schwa epenthesis occurs to break up consonant cluster when the cluster is in the onset position, and (2) debuccalisation or deletion occurs when the consonant cluster is at the coda position. These two adaptation strategies can be clearly seen in the examples below:

TABLE 6. Consonant cluster adaptation in Burmese

Consonant cluster	English	Burmese
1) Onset position	glider	[gə.laiʔ.dà]
	sprite	[sə.pə.jaiʔ]
2) Coda position	golf	[gauʔ]
	Egypt	[ʔi.dʒɪʔ]

Like Burma, Punjabi also applied strategies like epenthesis and phoneme substitution in their loanwords. According to Rashid et al. (2011) in his descriptive study, there were four adaptation strategies applied in Punjab when English words were borrowed into the language namely epenthesis, substitution, deletion and addition. He adds further that these adaptation strategies could occur simultaneously, as exemplified below:

TABLE 7. Types of adaptations of English loanwords in Punjabi

Type of adaptation	English	Punjab
Epenthesis	[spi:d]	[səpi:d]
Epenthesis	[ku:lə(r)]	[ku:lər]
Epenthesis and substitution	[kreɪn]	[kəre:n]
Epenthesis and substitution	[peɪpə(r)]	[pe:pər]
Epenthesis and substitution	[træktə(r)]	[təræktər]
Epenthesis and substitution	[draɪvə(r)]	[dərævər]

The Punjabi data presented above show similarities to the English loanword in Kelantan dialect in two ways: (1) the adaptation strategies, and (2) the occurrence of more than one strategy at one time. The type of adaptation applied in Punjabi shown above namely epenthesis and substitution are the adaptation strategies that apply in the English loanword in Kelantan dialect as well. Schwa is inserted between a sequences of consonant, as in the English words /spi:d/ and /kreɪn/ become [səpi:d] and [kəre:n] in Punjab, respectively. It should be mentioned that this phonological process that is, schwa epenthesis, is also applied in the case of English loanwords in the Kelantan dialect. As the discussion goes further, we will see that consonant clusters in English words are resolved by schwa epenthesis to break up the clusters such as /smart/ which is realised as [səmaʔ]. Likewise, substitution, when English words are borrowed into Punjab, a certain phoneme would be replaced by other phonemes, for instance, the vowel /aɪ/, as in /draɪvə(r)/ is substituted to another vowel, that is, [æ].

ENGLISH AND KELANTAN PHONEMIC INVENTORIES

This section presents and compares the inventories of consonant phonemes for English and the KD. Phonemes inventory is fundamentally important in analysing loanwords. This is because it explains how segment adaptations occur and forms a background about the adaptation process. Hayes (1986) states that the basic sounds; that is the minimal units which differentiate the basic sounds and the words which are the phonemes should be the first to be examined before initiating any phonological analysis. Furthermore, phonemes inventory is necessary when the consonant and the phonotactic systems of the borrower's language are different from the donor's language (Smith 2006: 82). Thus, the discussion on the phonemes inventories in this paper will be the starting point for analysing English loanwords into the KD.

ENGLISH PHONEMIC INVENTORY

Ladefoged (2001) has listed 24 consonant phonemes in English. The phonemes put in categories based on the places of articulation (POA) and the types of consonants (TOC), as shown below:

TABLE 8. The phonemes inventory for English consonant

POA / TOC	Bilabial	Labiodental	Dental	Alveolar	Palatal-Alveolar	Palatal	Velar	Glottal stop
Stop	p b			t d			k g	ʔ
affricate					tʃ dʒ			
Nasal	m			n			ŋ	
Fricative		f v	θ ð	s z	ʃ ʒ			h
Approximant	(w)			r		j	w	
Lateral				l				

The above chart shows that English has as many as 26 consonant phonemes. This number contradicts from the one which previously claimed that this language has 24 consonant phonemes only. This is because of the phonemes [tʃ] and [dʒ] are not included in the inventory. Ladefoged (2001) classifies [tʃ] and [dʒ] as phonemes that are articulated through stop. Besides, these two phonemes were not included in the English's inventory chart by Ladefoged (2011: 43) due to the confusion of putting them either at the place of articulation of palatal-alveolar or alveolar. In the above chart, [tʃ] and [dʒ] have been classified as affricates since both are articulated through the combination of stop (plosive) and fricative, as mentioned by McMahon (2002), "*the subclass of affricatives consists of sounds which starts as stops and end up as fricatives,…the two relevant sounds for English are [tʃ],…., and its voiced equivalent [dʒ]…*". Meanwhile, the phoneme [w], as shown in the inventory chart above, has been classified as belonging to two places of articulation i.e. bilabial and velar. This is because this phoneme is articulated by narrowing the bilabial and by rising the back of the tongue towards velar (Ladefoged & Johnson 2011, p. 43).

KELANTAN MALAY DIALECT PHONEMIC INVENTORY

The Kelantan Malay dialect has 20 phonemes, as claimed by Ajid (1985). In his discussion, Ajid (1985) categorises the phonemes [t] and [d] as *alveo-dental.* According to him, these two phonemes are produced by making a closure with the tongue to alveo-dental to hinder the air. Then, the air is released immediately. When the air is released, the velum is raised to block the air from passing through the nasal tract. According to Ladefoged & Maddieson (1996), the term *alveo-dental* refers to the consonants which are produced with a flat tongue raises to the upper dental, the same as how Spanish and French pronounce them. Shown below is the inventory chart taken from Ajid (1985) for the Kelantan dialect of Malay.

TABLE 9. The phonemes inventory for consonants in the Kelantan Malay dialect (Ajid 1985)

POA / TOC	Bilabial	Labiodental	Dental	Alveolar	Palatal-Alveolar	Palatal	Velar	Glottal stop
Stop	p b			t d			k g	ʔ
affricate					tʃ dʒ			
Nasal	m			n		ɲ	ŋ	
Fricative				s z			ɣ	h
Approximant	w					j		
Lateral				l				

As presented in TABLE 8 and TABLE 9 above, English has more consonants than the Kelantan Malay dialect. This language has extra six consonants compared to the Kelantan Malay dialect. Nevertheless, English and the Kelantan Malay dialect also share the same number of consonant phonemes, specifically 16 phonemes. The shared phonemes are /p, b, t, d, ʧ, ʤ, k, g, m, n, ŋ, s, z, j, l, w/. Meanwhile, there are eight English consonant phonemes which are not found in the Kelantan Malay dialect, which are, /f, v, ɵ, ð, ʃ, ʒ, (w), r/. English, however, has no consonants /ɣ/ and /ɲ/, as the Kelantan Malay dialect.

In terms of the place of articulation, the Kelantan dialect of Malay has no consonants which are articulated at both labiodental and dental. Therefore, the dialect has no phonemes /f, v, ɵ, ð/, as these phonemes are produced at the labiodental and dental place of articulation. Consequently, these phonemes would either be retained or replaced with other phonemes which have similar features when foreign words are borrowed into the Kelantan dialect of Malay. English consonants which have their correspondent phonemes in the Kelantan dialect of Malay show no adaptation. This means that consonants which exist in both languages would remain the same when borrowing occurs, while those which are not, need to be replaced with the native consonants. The adaptation of English consonants in the Kelantan dialect of Malay supports Steriade's (2001) claim that "*the least distinctive contrast whose modification resolves the violation.*"

METHODOLOGY

Data for this study were taken from (1) secondary data obtained from Shapri (1980) and (2) fieldwork through observations carried out in Kota Bharu, Kelantan. Shapri (1980) has listed as many as 130 words which have been borrowed into the KD. All the words were listed based on the word class, for examples, noun, verb and adjective.

Meanwhile, observation was carried out by participating in the community. It was conducted in Kota Bharu, Kelantan and the surrounding areas particularly at shopping malls (Kota Bharu mall and AEON), markets (Siti Khadijah & Wakah Che Yeh markets) and public transportation stations (Bus Terminal Kota Bharu and Bus Station Kota Bharu) for five days. During the observation, conversations with native speakers of Kelantan from various backgrounds aged from 45 and above at those places were created. Topics were varies depending on the situation such as respondents' time, surrounding atmosphere, friendliness of the respondents, the current issues that happened during the observation time and so on. Besides creating a conversation to them, they were also asked to confirm the loanwords data given by Shapri (1980) too. The pronunciation of English words in the Kelantan Malay dialect were slightly modified and changed. The modification in the pronunciation of the borrowed words is relatively common when borrowing words from other languages. As highlighted by Cruttenden (2013, p. 62), the pronunciation of a language is always changing. Likewise, English has undergone a lot of modifications thousand years ago whereby this has affected every aspect of the language namely, morphology, syntax, vocabulary and its pronunciation. For instance, the English word 'poor' was pronounced as /Uə/ by the older generation, but as [ɔ:] by the younger generation. This notion was also maintained by Trask (1994: 19) who states that, "like other aspects of language, pronunciation changes over time". Therefore, it is not surprising that different pronunciations also occur in loanword. Taking this into account, all the secondary data obtained from Shapri (1980) were verified by the speakers of the dialect themselves who confirmed whether the words are still pronounced the same as stated by Shapri (1980) since the data from Shapri (1980) were gathered more than three decades ago. The words verification was done during the observation simultaneously. This present study agrees with Trask (1994) that pronunciation could change as occurred in

the language. Hence, words verification is important to know if the word is still being used by the community or not. All the loanwords obtained from the observations were jotted down and recorded. There were about 55 words obtained from the observation.

Both data from Shapri (1980) and from the observations were combined and cleaned up. Loanwords from Shapri (1980) were removed when it was discovered that the words were the same from those obtained during the observation. Furthermore, if the loanwords from both sources were pronounced in different ways, hence the loanwords from Shapri (1980) would have to be removed from the list. As it has just been mentioned above, this is intended to ensure that the pronunciation of the loanwords was up to date. Apart from this, all the 130 words obtained from Shapri (1980) were made to undergo a screening process based on two criteria, which are (1) not an affixed word – only a root word, and (2) not an acronym – a word formed as an abbreviation from the initial components of a phrase or a word, usually individual letters. An acronym listed by Shapri is CEB. Based on these criteria, not all the words listed by Shapri (1980) were used in this present study as they were not relevant to this study. Hence, there were only 113 Shapri's (1980) data could be used for this present study. Therefore, the English loanwords in the Kelantan dialect of Malay used in this study totalled 167 (113 and 54 words from Shapri (1980) and the observation, respectively) after the combining and cleaning up were done.

TABLE 10. Data from the observation in Kota Bharu, Kelantan which were not listed by Shapri (1980)

English		Kelantan Malay dialect	
Words	Phonetic representation	Words	Phonetic representation
absorber	əbzɔːbər	saksoba	saʔsɔba
adjust	əˈdʒʌst	ejah	ejah
bag	bæg	bek	beʔ

RESULTS

Based on the data observed from Shapri (1980) and the fieldwork, this study reveals several adaptation strategies utilised when English words were borrowed into the Kelantan Malay dialect. The strategies are consonant substitution, consonant deletion, debuccalisation and consonant cluster, as discussed subsequently. All the adaptation strategies were categorised based on the same phonological behaviour shown by the data.

CONSONANT SUBSTITUTION

Consonant substitution is a term used in linguistic particularly in phonology to refer to a situation when one item is replaced or substituted by another item in a domain and structure (Crystal 2008, p. 463). In phonology, this process is known as a substitution. In loanwords context, consonant substitution occurs when a consonant is substituted with another consonant in the borrowed lexical item. Consonant substitution is a strategy used in a language to retain a sound from being deleted. Consonant substitution yields an output that is very similar to its input. The very similar output, however, is not permitted in the borrower's language[1]. Therefore, the consonant must be replaced by another consonant that is very close to the borrower's language (Hock 1991). According to Peperkamp and Dupoux (2003), the input sound in the donor's language would be mapped to any sound which is closer to the recipient's language when the adaptation process occurred. If the sound could not be found in the recipient's language, hence it would be replaced by any sound which is closer to the recipient's language.

In the case of the Kelantan Malay dialect, not all consonants could be substituted when English words are borrowed into the dialect. The following table shows the consonants in English loanwords undergo substitution when they are absorbed in the Kelantan dialect:

TABLE 11. English consonant substitution in the Kelantan Malay dialect

Consonant substitution	English		Kelantan Malay dialect	
	word	Phonetics representation	word	Phonetics representation
b → p	fire brigade	faɪər brɪgeɪd	faye preget	fajə pɣɛgɛʔ
r → ɣ	trip	trɪp	trek	tɣəʔ
	trawler	trɔ:lə(r)	trela	tɣɛla:
f → p	office	ofɪs	opih	opih
	form	fɔ:m	pom	pɔm
v → b	navy	neɪvi	nebi	nɛbi
	driver	draɪvər	dreba	dreba
ʃ → s	show	ʃəʊ	so	so:
	machine gun	məʃi:n gʌn	mesen gan	mesen gɛn
k → s	clear	klɪə(r)	slie	slio:
t → ʧ	tear	teə(r)	ce	ʧɛ:

As demonstrated in TABLE 11, consonants /r/, /f/, /v/ and /ʃ/ are substituted to [ɣ], [p], [b] and [s], respectively. These consonants are substituted to other consonants since they are not listed in the Kelantan inventory phoneme. Therefore, they need to be substituted to other consonants that are very similar to those in the dialect. This situation is called nativisation, as described by Trask (2000, p. 200) as:

> "When there is widespread bilingualism between speakers of two closely related languages, speakers will often be keenly aware of the phonological and morphological correspondences holding between the two languages. In such circumstances, a loan word may be nativized replacing each of its segments with the regularly corresponding segment in the borrowing language [...] As a result, the borrowed items may be indistinguishable from native formations [...]."

According to Trask (2000), words borrowed from other languages would normally undergo nativisation by substituting the non-native phoneme with a native phoneme. As substitution occurred, the borrowed foreign words would be difficult to distinguish from the native words because they sound similar. Besides Trask (2000), Hock & Joseph (2009: 241) have also discussed substituting non-native segments to native one particularly when the sound is not found in the borrower's language since it is not included in the borrower's inventory phoneme. When this occurs, the foreign sound would be replaced by a very similar sound to the borrower's language (Shahidi & Rahim 2011).

CONSONANT DELETION

The second adaptation strategy employed in the Kelantan Malay dialect loanwords is known as consonant deletion. The Kelantan speakers also delete some of the consonants when English words are borrowed into the dialect. In the case of consonant deletion, the consonant which is deleted would not be replaced by other consonants in the dialect, unless if the consonant were /r/ which would then be adapted to /ɣ/. As can be observed in the following examples, deletion could occur at any position of the word.

TABLE 12. Consonants deletion

Phonemes	English		Kelantan Malay dialect	
	Word	Phonetics representation	Word	Phonetics representation
r → Ø	carrier	kæriər	karia	kaɣija
	checker	ʧekər	cheko	ʧɛkɔ
	corner	kɔːrnər	kona	kɔna
	colour	kʌlə(r)	kala	kala
	driver	draɪvər	dreba	dreba
	tractor	træktə(r)	trekta	tɣeʔtaː
h → Ø	handball	hændbɔːl	ebo	ɛbo
	handle	hændl	enda	ɛnda
	heading	hedɪŋ	eding	ɛdiŋ
l → Ø	bulb	bʌlb	bo	bo
	cancel	kænsl	kese	kɛsɛ
	double	dʌbl	daba	daba
	golf	gɔːlf	goh	gɔh
d → Ø	adjust	əˈdʒʌst	ejah	edʒah
	mudguard	mʌdgɑːd	magad	magaʔ
	sound	saʊnd	saung	sauŋ

The consonant deletion which occurs in English loanwords in the Kelantan Malay dialect, as discussed beforehand relates to the syllable structure of the dialect. As can be seen above, /r/ deletion occurs at word-medial and word-final positions. Nevertheless, the /r/ which is retained as in [draɪvər] 'driver' is realised as [dreba] or be replaced to /ɣ/, as in [træktə(r)] 'tractor' which is realised as [tɣeʔtaː] when it is the second consonant of the word. Whilst for /h/, the deletion of this consonant occurs at the word-initial position. For example, both /h/ and the vowel follows it is replaced by /ɛ/ as in [hændbɔːl] 'handbag', which is pronounced by the Kelantan speakers as [ɛbo]. Meanwhile, the deletion of consonant /l/ at the word-final position is replaced by a vowel. However, /l/ is deleted when it appears as the second final consonant. The deletion of /d/ occurs when this consonant is at word-medial and word-final positions. In short, the deletion of consonants in English loanwords in the Kelantan Malay dialect has two different patterns that are, deletion with no replacement or with replacement. Deletion with replacement occurs either by replacing the deleted consonant with a vowel or with a native segment.

DEBUCCALISATION

Debuccalisation is a process that affects the sounds whereby the consonant loses its original place of articulation and becomes [h] or [ʔ]. This is the distinction between consonant substitution, as discussed above and debuccalisation. Consonant substitution allows a consonant to be substituted to any consonant while debuccalisation process only changes the consonant to [h] or [ʔ] only, not to other consonants. Sanskrit, Germany, Proto-Greek and many others are some of the world's languages which have debuccalisation (O'Brien 2012).

As far as debuccalisation process is concerned, it is claimed that this phonological process occurs to /k/ only, whereby /k/ occurs in the coda position of a syllable (Zaharani 2005). This phonological restriction however is more general to Kelantan and Terengganu dialects of Malay since this rule affects all the voiceless stops /p, t, k/ (Teoh 1994). Adi Yasran (2012) also claims that plosive consonants like /p/, /t/ and /k/ in word-final position in the KD would change to [ʔ]. Observation from the English loanwords data, however, reveal that there are other consonants which could also change to [ʔ] in the Kelantan Malay dialect;

specifically, /g/ and /b/ as in 'plug' and 'bag' which are pronounced as [plaʔ] and [beʔ], respectively. The following are examples of consonants that undergo debuccalisation when the Kelantan Malay dialect borrows words from English.

TABLE 13. Adaptation to [h]

Consonant	English		Kelantan Malay dialect	
	Word	Phonetics representation	Word	Phonetics representation
s → h	adjust	əˈdʒʌst	ejah	edʒah
f → h	golf	gɔ:lf	goh	gʔh
k → h	big work	bɪg wɜ:k	bekwoh	bɛʔcwoh
z → h	pause	pɔ:z	poh	pɔh
v → h	reserved	rɪˈzɜ:vd	ghizeh	ɣizeh
t → h	so hot	səʊ hɒt	sooh	sɔ.oh
ʃ → h	switch	swɪtʃ	suih	su:wih

TABLE 14. Adaptation to [ʔ]

Consonant	English		Kelantan Malay dialect	
	Word	Phonetics representation	Word	Phonetics representation
t→ ʔ	chocolate	çɒklət	coklak	çɒklaʔ
g → ʔ	bag	bæg	bek	beʔ
k →ʔ	tractor	træktə(r)	trekta	tyɛʔta:
b → ʔ	club	klʌb	klak	klaʔ
d → ʔ	fire brigade	faɪər brɪˈgeɪd	faye preget	fajə pyɛgɛʔ
p → ʔ	trip	trɪp	trek	tyɛʔ

The above examples show that there are several consonants that could be adapted to [h] or [ʔ]. These consonants are not limited to /p/, /t/ and /k/ only, as previously claimed. It should be noted that work done by Adi Yasran (2012) is slightly different from other Malay scholars in the sense that he claims both /s/ and /h/ could also undergo debuccalisation as well as /p/, /t/, /k/. Adi Yasran (2012) however, claimed only /s/ and /h/ are debuccalised. This study asserts that other consonants such as /f/, /z/, /v/, /ʃ/ and /s/ also involved in the adaptation strategy, as presented in the above examples.

VOWEL EPENTHESIS

As discussed by Clement and Keyser (1989), consonant clusters are resolved by either deleting one of the consonants or inserting a vowel between the consonants in order to adhere to the basic syllable structure of the language. In the context of English loanwords in the Kelantan dialect of Malay, vowel epenthesis is one of the strategies employed in breaking up consonant cluster. As can be seen in the following examples below, vowel epenthesis occurs at any position of the word.

TABLE 15. Vowel epenthesis in the Kelantan Malay dialect

Vowel epenthesis	English		Kelantan Malay dialect	
	Word	Phonetic representation	Word	Phonetic representation
Word-initial	frust	frʌˈst	prah	peɣah
	glee	gli:	geli	gəli
	scarf	skɑ:f	sekah	səkah
	smart	smɑ:t	semak	səma ʔ
	switch	swɪtʃ	suih	suwih
Word-medial	signal	sɪgnəl	signa	sigəna
Word-final	bottle	bɒtl	boto	botə
	cancel	kænsl	kese	kɛsɛ
	lable	leɪbl	lebo	lɛbə

As presented in the Table 15, English words contain more than one consonant in a syllable. For example, the word [frʌˈst] 'frust' which contains only one syllable has two sequence of consonant or the so-called complex consonants. The occurrence of complex consonants in the English words poses a problem to the speakers of Kelantan Malay dialect as this phonological representation is not permitted in the dialect (Adi Yasran 2012). Therefore, Kelantan speakers add a vowel between the consonants. It has been explained in phonology that this strategy of epenthesising a vowel between consonants is to break up the cluster. Yet, the syllable contains no complex consonants anymore. The pronunciation of 'frust' is now [peɣah] whereby the vowel epenthesis creates another syllable to the word. The word [frʌˈst] 'frust' now consists of two syllables, that is, [pe] and [ɣah]. The same situation also occurs in other examples of English words borrowed into the Kelantan Malay dialect, as shown in the Table 15. Epenthesising a vowel in the words always creates one more syllable to the words.

Apart from that, data in Table 15 above show that vowel epenthesis involves different types of vowels such as [ə], [u], [ɔ] and [ɛ]. This poses an interesting issue to the Malay grammar since schwa [ə] which is claimed as an unmarked vowel in the language seems no longer the only unmarked vowel (Zaharani 2005; Sharifah Raihan and Zaharani 2013).

FINAL CONSONANT SIMPLIFICATION

In the above discussion, it is shown that a vowel is epenthesised in consonant cluster when English words are borrowed into the Kelantan Malay dialect. It should also be mentioned that apart from vowel epenthesis, final consonant simplification is also another strategy employed by the dialect. It should be highlighted that final consonant simplification is distinct from consonant deletion, as discussed earlier whereby this process only occurs at the word-final position by deleting one of the consonants, as the following table shows:

TABLE 16. Final consonant simplification in the Kelantan Malay dialect

| English | | Kelantan Malay dialect | |
Word	Phonetic representation	Word	Phonetic representation
accident	æksɪdənt	eksiden	eʔsiden
agreement	əˈgriːmənt	egrimen	ɛgremiŋ
attendant	əˈtendənt	itande	itandɛ
ball pen	bɔːlpɔmt	bolpein	bolpeːn
current	kʌrənt	karen	karəŋ
double breast	dʌbl brest	daba breh	daba bɣɛh
second hand	sekənd hænd	sekenhen	sɛkeŋhɛn
shake hand	ʃeɪk hænd	sekenhen	sɛʔkeheŋ

The above data clearly show that complex consonants in the English words are resolved by simplifying the consonants. This means, two consonants which emerge at word-final position in English loanwords are simplified into a single consonant in the Kelantan dialect of Malay. For example, the complex consonants in the words [æksɪdənt] and [əˈgriːmənt] are changed into a single consonant, as in [eʔsiden] 'accident' and [ɛgremiŋ] 'agreement', respectively. Observe that, the simplification of the consonants is not merely dropping one of the consonants but also shifting the feature of the undeleted consonant. This can be seen in words such as [kʌrənt] 'current' and [ʃeɪk hænd] 'shake hand' which end with consonants [nt] are realised as [karəŋ] and [sɛʔkeheŋ], respectively.

LOANWORDS ADAPTATION APPROACH

In the discussion above concerning English loanwords adaptation in the Kelantan dialect of Malay, we have seen that there are four adaptation strategies applied. The strategies are: consonant substitution, consonant deletion, debuccalisation, vowel epenthesis and final consonant simplification. We should now discuss which adaptation approach for English loanwords that can account for the data of Kelantan dialect of Malay.

With regard to the Perception Approach, the extensive variability of debuccalisation in English loanwords towards the changes of non-native sounds only occur at the perceptual level while the role of phonology is indirect as it is not involved in the changes, which is indeed inappropriate. As discussed earlier, the consonants (p, t, k, g) which need to be debuccalised should only occur in coda position of a syllable. Debuccalisation does not occur if the consonants are present at any other position of the syllable. The application of this adaptation strategy proves that the role of phonology is not indirect.

In the Perception-Phonology Approach, the input of the adaptation process is based on how the borrower perceives the acoustic signals of the source language. The perception-based input then would be modified by the phonological grammar of the borrower's language. This is quite impossible since speakers of Kelantan Malay dialect did not perceive the acoustic signals of English directly.

In the Phonology Approach on the other hand, the extensive variability of consonants adaptation in English loanwords supports the category preservation/proximity principles. For example, the changes of all the consonants are in the same phonological representation and status. Hence, it is clear how phonological category matching is done.

The English loanwords in Kelantan Malay dialect seem to suggest that the input to the loanword adaptation is phonological in nature. Considering the source of input therefore, a related theoretical question arises, that is, how this variation that occurs in English loanwords should be modelled.

In view of the adaptation strategies discussed and the phonological processes involved in matching the native system, a model for the Kelantan dialect of Malay loanwords adaptation can be constructed as shown below:
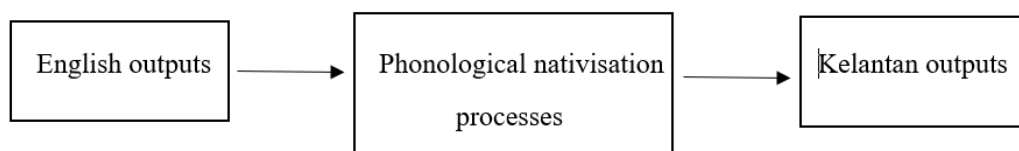
```
┌──────────────┐        ┌────────────────────┐        ┌──────────────┐
│              │        │ Phonological        │        │              │
│English outputs│──────▶│ nativisation        │──────▶│Kelantan outputs│
│              │        │                     │        │              │
│              │        │ processes           │        │              │
└──────────────┘        └────────────────────┘        └──────────────┘
```

FIGURE 1. Model for English loanwords in the Kelantan Malay dialect

CONCLUSION

This paper discusses the major adaptation strategies resulted from the analysis of 185 loanwords from English into the KD obtained from Shapri's work (1980) and fieldwork in Kota Bharu, Kelantan. The first part of this paper analyses the adaptation strategies observed in the KD loanwords. The findings of this study reveal that there are three major strategies found in the KD loanwords which are consonant substitution, consonant deletion and debuccalisation. It is also observed that consonant substitution occurs to produce loanwords which are more native sound like by adapting the non-native consonants to the native one. On the other hand, consonant deletion is mainly applied to ensure that loan words are conformed to the native phonological system particularly when it affects the syllable structure of the

borrower's language. Debuccalisation is another adaptation strategy employed in ensuring only certain consonants can be at the coda position.

In addition, this study discusses the source of input for the Kelantan Malay dialect loanwords. The KD loanword data seem to suggest that the input of loanwords adaptation strategies is received through the Phonology Approach. This affects the sounds of the English words since the phonological category matching needs to be preserved. The new output derived from the English source is represented in a model constructed for the Kelantan Malay dialect loanwords adaptation process.

The findings from this study called for a look in a different light the status of Malay and its grammar system, particularly the phonological aspects of the language. Since English is mixed up with non-standard Malay through Kelantan Malay dialect, it produces new grammar and lexical variation in Malay vocabulary whereas they are not formally stated and have never been discussed. For example, debuccalisation process in the Kelantan dialect clearly shows that consonants /p, t, k/ are not the only consonants could undergo debuccalisation, as previously discussed in Malay literature. The analysis shows that consonants /b/ and /g/ also involved in the process. This brings implication to the Malay grammar as /b/ and /g/ are not part of consonants that could be debuccalised. Besides that, borrowing words from other languages into Malay usually results in several adaptation processes to match the system of the donor's language with the Malay system. Nevertheless, it should be noted that the phonological rules of non-native could not be totally adapted into Malay.

ENDNOTE

[1]The use of recipient language and donor language refer to the term loanword given by Cambell (2004:63). He defines loanword as borrowing lexical from donor language and it is adapted to recipient language as a part of the borrower's dictionary.

REFERENCES

Adi Yasran Abdul Aziz. (2012). Analisis Koda Berdasarkan Kekangan dalam dialek Kelantan. *GEMA Online Journal of Language Studies. Vol. 12*(4), 1127-1145.

Ajid Che Kob. (1985). *Dialek Geografi Pasir Mas*. Bangi: Penerbit Universiti Kebangsaan Malaysia.

Campbell, L. (2004). Historical Linguistics: An Introduction. 2nd Edition. Cambridge: MIT Press.

Chang, C. B. (2009). English loanword adaptation in Burmese. *Journal of the Southeast Asian Linguistics Society. Vol. 1*, 77-94.

Clements, G. N. & Keyser, S. J. (1983). *From CV phonology: a generative theory of the syllable*, ed. by Goldsmith, John Anton, 185-200. Blackwell Publishers Ltd.

Cruttenden, A. (2013). *Gimson's Pronunciation of English*. USA: Routledge.

Crystal, D. (2008). *A Dictionary of Linguistics and Phonetics*. USA: Blackwell.

Hayes, B. (1986). Inalterability in CV Phonology. *Language. Vol. 62*, 321-351.

Hock, H. H. (1991). *Principles of Historical Linguistics*. New York: Mouton De Gruyter.

Hock, H. H & Joseph, B.D. (2009). *Language History, Language Change and Language Relationship: An Introduction to Historical and Comparative Linguistics*. New York: Mounton De Gruyter.

Kang, Y. J. (2003). Perceptual similarity in loanword adaptation: English postvocalic word-final stops in Korean. *Phonology. Vol. 20*, 219-273.

Kenstowic, M. (2005). The phonetic and phonology of Korean loanword adaptation. Paper presented at First European Conference on Korean Linguistics. Leiden University, February.

Kenstowic, M. (2007). Salience and Similarity in loanword adaptation. A case study from Fijian. *Language Sciences. Vol. 29*, 316-340.

Labrune, L. (2002). The prosodic structure of simple abbreviated loanwords in Japanese: A constraint-based account. *Journal of the phonetic Society of Japan. Vol. 6* (1), 98-120.

LaCharité, D. & Paradis, C. (2005). Category preservation and proximity versus phonetic approximation in loanword adaptation. *Linguistic Inquiry. Vol. 36*, 223-258.

Ladefoged, P. (2001). *Vowels and Consonants: An Introduction to The Sounds of Languages*. Oxford: Blackwells.

Ladefoged, P. & Johnson, K. (2011). *A Course in Phonetics*. USA: Wadsworth.

Ladefoged, P. & Maddieson, I. (1996). *The Sounds of The World's Languages*. Oxford: Blackwell.

McMahon, A. (2002). *An Introduction to English Phonology*. UK: Edinburgh University Press.

Mheta, G. & Zivenge, W. (2009). Phonological adaptation of borrowed terms in 'Duramazwi Remimhanzi'. *Lexikos. Vol. 19*(2), 157-165.

O'brien, J. (2012). An Experimental Approach to Debuccalization and Supplementary Gestures. PhD Dissertation. Santa Cruz: University of California.

Paradis, C. & La Charite, D. (1997). Preservation and Minimality in Loanword Adaptation. J. *Linguistics. Vol. 33*, 379-430.

Paradis, C. (2006). The unnatural /Cʲu/ (foreign/Cy/) sequence in Russian loanwords: a problem for the perceptual view. *Lingua. Vol. 116*(7), 976-995.

Peperkamp, S. & Dupoux, E. (2003). Reinterpreting Loanword Adaptations: The Role of Perception. Paper presented at the 15th International Congress of Phonetic Sciences. Autonomous University of Barcelona. August.

Peperkamp, S., Vendalin, I. & Nakamura, K. **(**2008**)**. On the Perceptual Origin of Loanword Adaptations: Experimental Evidence from Japanese. *Phonology. Vol. 25*(1), 129-164.

Rashid Mahmood, Qandeel Hussain & Muhammad Asim Mahmood. (2011). Phonological adaptations of English words borrowed into Punjabi. *European Journal of Social Sciences. Vol. 22*(2), 234-245.

Rose, Y. & Demuth, K. (2006). Vowel epenthesis in loanword adaptation. Representational and phonetic considerations. *Lingua. Vol. 116*, 1112-1139.

Schutz, A. (1999). Fijian accent. *Oceanic Linguistics. Vol. 38(1),* 139–51.

Shahidi A. H. & Rahim Aman. (2011). An Acoustical Study of English Plosives in Word Initial Position produced by Malays. *3L: The Southeast Asian Journal of English Language Studies. Vol. 17*(2), 23-33.

Shapri Ab. Llah. (1980). Perkataan-perkataan Inggeris di dalam Pertuturan Bahasa Melayu Dialek Kelantan: Suatu Tinjauan yang Menyeluruh. Tesis Ijazah Sarjana Muda Sains Sosial dan Kemanusiaan, Universiti Kebangsaan Malaysia, Bangi, Malaysia.

Sharifah Raihan Syed Jaafar & Zaharani Ahmad. (2013). The Emergence of the Unmarked in Standard Malay Partial Reduplication. *Pertanika Journal of Social Sciences and Humanities. Vol. 21*(S), 121-130.

Silverman, D. (1992). Multiple Scansions in loanword Phonology. Evidence from Cantonese. *Phonology. Vol. 9*, 289-328.

Smith, J. L. (2006). Loan Phonology is not all perception: Evidence from Japanese loan doublets. *Japanese/Korean Linguistics. Vol. 14*, 63-74.

Sohn, Hyang-Sook. (2001). Optimisation of Word final coronals in Korean Loanword adaptation. Paper presented at HILP5. University of Potsdam, January.

Steriade, D. (2001). Directional Asymmetries In Place Assimilation: A Perceptual Account. In Hume, E & Johnson, K. (Eds.). *The Role of Speech Perception in Phonology* (pp. 219-250). San Diego: Academic Press.

Teoh, Boon Seong. (1994). *The sound system of Malay revisited*. Kuala Lumpur: Institute of Language and Literature.

Trask, R. L. (1994). *Language Change*. London: Routledge.

Trask, R. L. (2000). *The Dictionary of Historical and Comparative Linguistics*. Edinburgh: Edinburgh University Press.

Uffmann, C. (2005). Optimal Geometries. In Van De Weijer, J. & Van Ostendorp, M. (Eds.). *The Internal Organization of Phonological Segments* (pp. 27-62). Berlin: De Gruyter.

Yip, M. (1993). Cantonese Loanword Phonology and Optimality theory. *Journal of East Asian Linguistics. Vol. 2*, 261-91.

Yip, M. (2005). Variability in feature affiliations through violable constraints: The case of [lateral]. In Marc van Oostendorp & Jeroen van de Weijer (Eds.). *The Internal Organisation of Phonological Segments* (pp. 63-92). Berlin: De Gruyter.

Zaharani Ahmad. (2005). *The phonology-morphology interface in Malay: An Optimality theoretic account*. Pacific Linguistics: The Australian National University.