The Influence of Educational Background on Malaysian Chinese Learners' Mispronunciation of /l/ and /r/

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Abstract

Maintaining intelligibility among interlocutors while communicating in English remains a challenging task for many second or foreign language learners. This problem is attributable to many reasons, including learners' obstacles with pronunciation. The recurring report of Chinese learners having incomprehensible pronunciation of /l/ and /r/ in English words has engendered debate on various factors underlying the problem. Despite the extensive discussion of this issue, previous studies had overlooked educational background as a potential factor which could affect learners' pronunciation. Thus, this study investigated mispronunciations of /l/ and /r/ among Malaysian Chinese undergraduates vis-à-vis their educational background, namely Chinese-educated (CE) and non-Chinese educated (NCE). The study objectives were to determine CE and NCE learners' frequency of mispronunciation of English words containing /l/ and /r/ according to phoneme, phoneme position, and mispronunciation characteristics. To this end, a quantitative approach was employed to conduct the study. For data collection, two pronunciation word lists covering /l/ and /r/ in initial, medial, and final positions were provided to 20 CE and NCE undergraduates respectively for assessment purposes. The participants' pronunciations were recorded, transcribed and transformed into numerical data. The results of the study reveal that Chinese-educated Malaysian undergraduates tend to mispronounce English words containing /l/ in medial and final positions. Furthermore, words containing /l/ in the medial position tend to be substituted; while words with /l/ in the final position tend to be deleted or vocalized by the students. The findings of this study provide valuable insights into the teaching and learning of English pronunciation.

Keywords: English language learners, Chinese education, educational background, mispronunciation, /l and /r/ phonemes

1. Introduction

Being the most spoken language in the world, English is reported to be used by approximately 1.452 billion people around the world, either natively (372.9 million) or as a second language (1.080 billion) (Eberhard et al., 2022). The statistics glaringly reveal that the number of second language (L2) users of English has surpassed its first language user by 3.9 times. This further confirms English's significant role as a lingua franca or a contact language among people from culturally and linguistically diverse backgrounds. Among ESOL (English for speakers of other languages) learners, however, communicating in English still remains challenging to many of them, particularly the pronunciation aspect of the language. To note, this problem is also evident among Chinese learners of English as they have been found to face difficulty to produce certain English sounds (Hamzah et al., 2017; Huang, 2017; Regalado, 2018; Ruan, 2013; Utami, 2020), and this problem has also hindered them to be understood by native speaker or other ESOL learners (Han, 2013). Therefore, the recurring report of Chinese learners having an unclear and incomprehensible pronunciation is considered to be worthy of scholarly attention and requires further research from a different perspective.

A search in the corpus database could easily discover academic article, blogging or write-up about Chinese learners' difficulties in English pronunciation, particularly on their obstacles in pronouncing the consonant /r/ in English sound (Hamzah et al., 2017; Ibrahim et al., 2007; Utami, 2020). Interestingly, Regalado (2018) found that quite a number of 'southern Chinese' could not pronounce the /r/ consonant where they substitute it with a /l/ consonant. Thus, having difficulty to distinguish /l/ and /r/ has been perceived "the most common error in Chinese speakers" (p. 53). This has given rise to the stereotypical view that Chinese speakers often mix up the consonant /r/ with consonant /l/. Those who possess such view frequently attribute this scenario to an imbalance of Chinese words formed by these two consonants. To a large extent, this view is deemed appropriate because there are more Chinese words with consonant /l/ than consonant /r/ in which the ratio of the former to the latter is approximately five to one (新华字典 Xinhua Dictionary, 2004). To note, there is less than 150 Chinese words which are formed using consonant /r/. Within a similar perspective, Kho (2011) claims that it is difficult for Chinese English learners to produce some English sounds as those sounds are not available in their native language's phoneme inventory system. Nonetheless, this view remains debatable because from the point of acoustic analysis, the tongue position involved in pronouncing these two consonants are distinctive. The alveolar lateral sound /l/ is produced with the tongue tip raised while the rest of the tongue remains down and permits air to escape over its sides. Whereas the alveolar retroflex or liquids /r/ sound is produced by curling the tip of the tongue back behind the alveolar ridge. Therefore, this argument justifiably rejects the former explanation of why some Chinese learners

tend to substitute English words with initial /r/ sound with the /l/ sound.

2. Malaysian Chinese Students' Educational Background and Their English Pronunciation

According to a report released by JobStreet.com (2013), employers do not hire fresh graduates merely based on their academic results, instead their communication skills and command of English are among the main criteria that determine whether they will be recruited. This is because employers are starting to value employees with good communication skills in English to provide a good impression of the company to the customers (Said, 2017). However, this becomes an alarming issue in Malaysia as many graduates are facing a common problem of unemployment due to their poor pronunciation (Shak et al., 2016). This is deemed surprising as the emphasis of English has long been observed in the Malaysian education system. English is made a compulsory subject in all major examinations in primary, secondary, pre-university, and university level (Rethinasamy & Chuah, 2011). Furthermore, at the tertiary level, each Malaysian university has set a specific criterion for their undergraduates, in which students who obtained a certain band score in the Malaysian University English Test (MUET) are required to sign up for English remedial courses provided by the respective university.

The Malaysian education system is one of the most unique systems as compared to those of other countries. The medium of instruction varies according to the type of school such as national, national-type and independent schools. National schools use Malay language, Chinese-national-type schools use Mandarin, Tamil-national-type schools use Tamil as the medium of instruction and independent schools, which are usually independent Chinese schools, use Mandarin. This education system has brought up many Chinese individuals who have different language preferences. A study conducted by Kow (2003) found that an individual's language preference throughout his or her life is affected by the medium of instruction in education. Moreover, studies have also discovered that Chinese-educated Malaysian Chinese feel more comfortable in using Mandarin (Lee & Ting, 2016) while Malay-educated Chinese preferred Malay and English (Ting, 2013). With reference to this, it is hypothesised that, besides language preference, Chinese students' obstacle in pronouncing /r/ sound in English could also be affected by their educational background be it Chinese-educated (CE) or non-Chinese educated (NCE). Nonetheless, thus far there is no research which precisely look into this aspect of the issue.

Within a similar research focus, Phoon et al. (2013) conducted a comparative study to examine consonant realizations among Malaysian Chinese, Indian and Malay speakers of English. Their findings indicate that none of the Chinese participants who had attended at least six years of primary schooling in Chinese schools and had Mandarin as their first language could realize initial /r/ as a tap or trill. On these grounds, it can be argued that Chinese speakers' difficulty in phonetic realization of /r/ could be attributed to their educational background. For Malaysian Chinese speakers who attended the Chinese-medium-national-type schools, it is likely that they are more well versed in and prefer to use Mandarin. Additionally, as taps and trills are also not a significant feature of Mandarin phonetic inventory (Phoon & Maclagan, 2009) compared to Malay and Tamil, all these could cause some Chinese-educated Malaysian Chinese speakers facing difficulty to pronounce the /r/ sound in English. This argument, however, still remains insufficiently addressed, thus requires more confirmatory evidence from further research. On the contrary, Kho (2011) investigated the characteristics of mispronunciation by Malaysian Chinese undergraduates who had attended Chinese vernacular school and national secondary school. Some of the students were confused between /l/ and /r/, and surprisingly they replaced lateral /l/ with the approximant /r/, which was completely different from previous studies. Though the findings are not consistent, it can somehow postulate that some Malaysian Chinese face difficulty in perceiving /l/ and /r/ sounds.

Besides that, several studies have been conducted to investigate Chinese students' English pronunciation from various parts of China and Malaysia. For instance, in a study comparing the pronunciation of English words by Chinese undergraduates from China and Malaysia, Hamzah et al. (2017) assessed the students' pronunciation of voiceless dental fricatives /θ/ and alveolar liquids /r/ and in which they identified the characteristics of mispronunciations. Some of the students were found to substitute /r/ in "lorry" with /l/ and delete the /r/ in the consonant cluster of "fragile". The researchers concluded that many Chinese learners, regardless of their nationality, are having difficulties in differentiating these sounds. Besides that, in an earlier study, Ibrahim et al. (2007) also compared the pronunciation of /r/ and /l/ between Malaysian Chinese ESL learners and Chinese learners of English from China. In this study, Malaysian Chinese learners were found to face more problems in pronouncing /r/ compared to Chinese learners from China. This finding has somewhat challenged the stereotypical view or explanation that the way in which a person pronounces English words is influenced by his/her native language. Following this view, learners of the same ethnic origin are supposedly assumed to develop the same language learning experience following a 'natural order'. However, Ibrahim et al.'s (2007) study has proved that this explanation is only partially true. Therefore, on this note, there is a need to investigate other plausible reason which could explain Malaysian Chinese learners' difficulty in pronouncing /r/ in English, such as their educational background.

3. Research Questions

The following research questions were constructed to guide the present study:

RQ1(a): Is there a significant difference in the frequency of mispronunciation of English words containing /l/ between Chinese educated (CE) and non-Chinese (NCE) educated undergraduates?

RQ1(b): Is there a significant difference in the frequency of mispronunciation of English words containing /r/ between CE and NCE undergraduates?

RQ2(a): Is there a significant difference in the frequency of mispronunciation of /l/ in English words according to phoneme position between CE and NCE undergraduates?

RQ2(b): Is there a significant difference in the frequency of mispronunciation of /r/ in English words according to phoneme position between CE and NCE undergraduates?

RQ3(a): Is there a significant difference in the frequency of each mispronunciation characteristics of /l/ in English words according to phoneme position between CE and NCE undergraduates?

RQ3(b): Is there a significant difference in the frequency of each mispronunciation characteristics of /r/ in English words according to phoneme position between CE and NCE undergraduates?

4. Research Methods and Context

This research employed a quantitative approach in investigating the influence of educational background on the mispronunciation of /l/ and /r/ among Malaysian Chinese undergraduates.

4.1 Participants

A total of 40 Malaysian Chinese undergraduates from two Malaysian universities, one private and one public, participated in this study. The participants were selected using purposive sampling, which is a type of non-probability sampling. This method is cost and time effective and allows researchers to collect data rich with information (Foley, 2018). The undergraduate students' age ranged from 18 to 22 years old. They were divided into two groups based on their educational background which were Chinese-educated (CE) and non-Chinese educated (NCE). The CE undergraduates (CE) were labelled as group 1 whereas group 2 consisted of NCE undergraduates. The twenty CE undergraduates in Group 1 had their primary and secondary education in Chinese Mandarin-medium schools and had taken Mandarin language as a subject in major examinations, including Primary School Achievement Test which is known as Ujian Pencapaian Sekolah Rendah (UPSR) in Bahasa Malaysia and Unified Examination Certificate (UEC) for Junior Middle Level and Senior Middle Level in Chinese Independent High Schools. On the other hand, group 2 consisted of twenty students who underwent their primary and secondary education in Malay medium schools. Due to the national school policy, in which Chinese Mandarin was not offered as a subject, the students did not receive any formal instruction in that language and nor did they sit for any form of Mandarin Chinese proficiency test.

4.2 Instruments and Data Analysis

The present study employed two research instruments to obtain the required data, namely pronunciation word list and questionnaire. First, two pronunciation word lists that contained English words with the target phonemes /l/ and /r/ in different word positions: initial, medial, and final positions (see Appendix A) were used to assess the participants' pronunciation. Each word list comprised a total of 30 words that were clustered equally into 3 groups wherein 10 words were included for each phoneme position. All the words were selected from the lists suggested by Phoon and Maclagan (2009), Phoon et al. (2013), Hamzah et al. (2017) and Ibrahim et al. (2007). In conducting the pronunciation test, a reference containing the accurate transcriptions of the words was used to identify mispronunciations. The transcriptions were done based on the British Received Pronunciation and American pronunciation as prescribed in the online Oxford Learner's Dictionary (see Appendix B). These two types of pronunciation were accepted since Malaysian English is derived from these types of English. Also, they were the most popular and widely used English variations in mass media, both local and international (Yong et al., 2012).

Second, a questionnaire survey was also administered to obtain basic demographical data from the participants. The types of information asked in the survey included age, types of school attended, experience of learning Mandarin Chinese, experience of taking Mandarin tests, perceived fluency of Mandarin and the dominant language used in various contexts.

After responding to the survey administered, the student participants were individually invited to take the pronunciation test. During the test, they were required to read out loud every word on the two pronunciation word lists. Their pronunciation of the English words was recorded in an audio format using a smartphone with a recording feature. The recordings of the participants' pronunciation were then transcribed, and mispronunciations were identified and categorized. Next, the data were transformed into numerical form and analysed statistically using Statistical Package for the Social Sciences (SPSS) software. The descriptive statistics (mean scores) were used to explain the results while the inferential statistics (unpaired t-test results) were used to examine any significant difference in the frequency of mispronunciations of /l/ and /r/ according to phoneme, phoneme position, and mispronunciation characteristics.

5. Results and Discussion

5.1 Comparing Mispronunciation of Phonemes /L/ And /R/ Between CE And NCE Students

The mean scores obtained by the CE students and NCE students in the mispronunciations of /l/ and /r/ were compared. The mean and results from the unpaired t-test according to the respective phoneme are shown in Table 1.

Table 1. Mean and unpaired t-test results according to phoneme

Phoneme Mispronunciation	Educational Background	Mean	Std. Deviation	df	t	Sig. (2-tailed)
Mispronunciation of /l/	CE	4.40	3.775	38	4.946	.000016
	NCE	.20	.410			
Mispronunciation of /r/	CE	.20	.410	38	1.435	.159
	NCE	.05	.224			

The descriptive statistics show that CE students mispronounced more words containing /l/ sound (M=4.40) compared to NCE students (M=.20). It answers research question 1(a) whereby there is a significant difference in the frequency of mispronunciation of English words containing /l/ between CE and NCE students (df=38, t=4.946, sig=.000016). This finding, to a certain extent, is in line with Huang and Radant's (2009) study where more than 50% of the Chinese undergraduates from Taiwan had difficulties in pronouncing /l/. Similarly, Kho (2011) and Ibrahim et al. (2007) also found that Malaysian Chinese undergraduates who are Chinese-educated tend to mispronounce /l/ by substituting with /r/. This finding indicates that educational background has an effect on the pronunciation of English words containing /l/ among Malaysian Chinese undergraduates.

As for words which contained /r/ sound, similarly, there were more mispronunciation identified among the CE students (M=.20) than the NCE counterparts (M=.05). However, the unpaired t-test result shows that there is no significant difference in the frequency of mispronunciation between the two groups. Several studies have shown that Malaysian Chinese undergraduates tend to mispronounce /r/ when they appear as consonant clusters or in medial position (Hamzah et al., 2017; Ibrahim et al., 2007). Although these studies did not take the participants' educational background into consideration, the results did suggest the possibility of its influence on the students' pronunciation of /l/ and /r/.

5.2 Comparing Mispronunciation of /L/ and /R/ in Various Phoneme Positions Between CE and NCE Students

Table 2 presents the mean and the unpaired t-test result on the frequency of mispronunciation of /l/ and /r/ in three phoneme positions, namely initial, medial and final.

Table 2. Mean and t-test results on the mispronunciation of /l/ and /r/ according to phoneme position

Phoneme Mispronunciation	Educational Background	Mean	Std. Deviation	df	t	Sig. (2-tailed)
Mispronunciation of /l/ (initial)	CE	.05	.224	38	1.000	.324
	NCE	0	0			
Mispronunciation of /l/ (medial)	CE	.30	.470	38	2.854	.007
	NCE	0	0			
Mispronunciation of /l/ (final)	CE	4.05	3.395	38	5.035	.000012
	NCE	.20	.410			
Mispronunciation of /r/ (initial)	CE	0	0	38	0	0
	NCE	0	0			
Mispronunciation of /r/ (medial)	CE	.20	.410	38	1.435	.159
	NCE	.05	.224			
Mispronunciation of /r/ (final)	CE	0	0	38	0	0
	NCE	0	0			

As shown in the analysis, the CE students mispronounced /l/ in all phoneme positions: initial (M=.05), medial (M=.30), and final (M=4.05). In contrast, the NCE students only mispronounced /l/ when it occurred in the final position (M=.20). Additionally, statistically significant differences were also found in the frequency of mispronouncing English words containing /l/ in both medial (df=38, t=2.854, sig=.007) and final (df=38, t=5.035, sig=.000012) positions between the CE and NCE students. This further indicated that educational background did affect Malaysian Chinese undergraduates' pronunciation of English words containing /l/ in both medial and final positions. In previous studies, many Chinese undergraduates from Taiwan, China, and Malaysia were also found having obstacle in pronouncing /l/ in final position (Deterding et al, 2008; Huang & Radant, 2009; Phoon et al, 2013; Phoon & Maclagan, 2009; Zhang, 2015). For instance, in Huang and Radant's study, 50% of their participants mispronounced /l/ in initial position while 80% mispronounced /l/ in final position. Besides, Ibrahim et al. (2007) also found that Malaysian Chinese tend to mispronounce /l/ in medial position.

As for the mispronunciation of /r/ in different phoneme positions, the result revealed that only words containing /r/ in the medial position were mispronounced by both the CE students (M=.20) and NCE students (M=.05). However, different from the findings on mispronunciation of /l/, there is no significant difference found between the two groups of students in the frequency of mispronunciation of /r/. With reference to this, it can be implied that educational background has no effect on Malaysian Chinese students' pronunciation of /r/ regardless of its phoneme positions. This finding somehow corroborates with Ibrahim et al.'s (2007) claim that only Malaysian Chinese mispronounced /r/ in medial position, for instance, the word "strawberry". This further confirms that Malaysian Chinese undergraduates have a common difficulty in pronouncing English words containing /r/ in medial position.

5.3 Comparing Mispronunciation Characteristics of /L/ and /R/ between CE and NCE Students

Table 3 shows the mean and results obtained from the unpaired t-test on the frequency of mispronunciation of /l/ and /r/ according to three types of mispronunciation characteristics, namely substitution, deletion and vocalization, which were identified in the pronunciation tests.

Table 3. Mean and t-test results on the f mispronunciation of /l/ and /r/ according to mispronunciation characteristics

Mispronunciation Characteristics	Educational Background	Mean	Std. Deviation	df	t	Sig. (2-tailed)
Substitution of /l/ (initial)	CE	.05	.224	38	1.000	.324
	NCE	0	0			
Substitution of /l/ (medial)	CE	.470	.470	38	2.854	.007
	NCE	0	0			
Deletion of /l/ (final)	CE	1.80	1.673	38	4.308	.000112
	NCE	.15	.366			
Vocalization of /l/ (final)	CE	2.25	1.916	38	5.100	.00001
	NCE	.05	.224			
Deletion of /r/ (medial)	CE	.15	.366	38	1.042	.304
	NCE	.05	.334			
Substitution of /r/ (medial)	CE	.05	.224	38	1.000	.324
	NCE	0	0			

For phoneme /l/, the main characteristics of mispronunciation committed by the CE students were substitution of initial /l/ (M=.05), substitution of medial /l/ (M=.470), deletion of final /l/ (M=1.80), and vocalization of final /l/ (M=2.25). Meanwhile, the NCE students committed two mispronunciation in /l/ which were deletion (M=.15) and vocalization (M=.05). In answering research question 3(a), the unpaired t-test results show that there is a significant difference in three characteristics of mispronunciation of /l/ between the CE and NCE students: substitution of /l/ in medial position (df=38, t=2.854, sig=.007), deletion of /l/ in final position (df=38, t=4.308, sig=.000112), and vocalization of /l/ in final position (df=38, t=5.100, sig=.00001). According to the transcriptions, all the substitutions were performed by substituting /l/ with /r/. To note, most of the CE students in this study substituted /l/ in the medial position. This result is somewhat in line with Ibrahim et al.'s research findings (2007) where most of their participants also substituted /l/ in medial positions with /r/. On the contrary, most other local studies found that Malaysian Chinese students tend to delete /l/ in the final position (Kho, 2011; Phoon et al., 2013; Phoon & Maclagan, 2009) and use vocalization of /l/ in the final position (Phoon & Maclagan, 2009). Interestingly, by comparison, CE students from other countries such as Taiwan tend to substitute /l/ in the initial position (Huang and Radant, 2009). Despite all these findings, it is important to highlight here that none of these studies distinguished the students according to their educational background.

Besides that, deletion and substitution of /r/ at medial position were identified as two mispronunciation characteristics committed by the students. As shown in Table 3, CE students performed more deletion (M=.15) than substitution (M=.05); whereas NCE students only performed deletion (M=.05). Additionally, results from the unpaired t-test showed that there was no significant difference found between the two groups in the frequency of the preceding mispronunciation characteristic. Nevertheless, previous studies found that Malaysian Chinese undergraduates tend to substitute /r/ in medial position as compared to other mispronunciation characteristics (Hamzah et al., 2017; Ibrahim et al., 2007). Though these findings were different from the present study, it still shows that Malaysian Chinese undergraduates do perform substitution for /r/ in medial position; while deletion of /r/ requires more research on it.

6. Conclusion and Recommendations

This study investigated the mispronunciations of /l/ and /r/ in English words among Malaysian Chinese undergraduates in relation to their educational background. In terms of phoneme, the descriptive statistics results showed that CE students had more mispronunciations than NCE students when pronouncing words containing /l/ and /r/. In further analysis, the unpaired t-test results showed that there was a significant difference in the frequency of mispronunciation of /l/ between CE and NCE students. This confirms that educational background affects Malaysian Chinese undergraduates' pronunciation of English words containing /l/. However, though there was no significant difference found in the frequency of mispronunciation of /r/ between the students, the result indicates that they, regardless of their educational background, do face problems in pronouncing English words containing /r/.

In terms of mispronunciation by phoneme position, the CE students mispronounced /l/ in all phoneme positions while the NCE students only mispronounced /l/ in final position. As for words containing /r/, both groups mispronounced words containing the phoneme in medial position only. However, the results from the inferential statistics showed that only the frequency of mispronunciation of words containing /l/ in medial and final position had significant differences between the two groups. This shows that educational background affects the students' pronunciation of English words containing /l/ in both medial and final positions. Furthermore, with regards to the different characteristics of mispronunciation, the use of deletion, substitution, and vocalization in words containing /l/ were detected mostly among the CE students. As for words containing /r/, the mispronunciation was mainly due to deletion and substitution. Additionally, results from the unpaired t-test showed that there was a significant difference in the frequency of substitution for /l/ in medial position; deletion and

vocalization for /l/ in final position between the CE and NCE students. On these grounds, it can be deduced that Malaysian CE students tend to use the aforementioned ways to pronounce words which contain /l/, particularly when the sound appears in the medial and final positions.

On overall, the data yielded in the study provide convincing evidence that the types of elementary and secondary education, either Chinese or non-Chinese oriented, would influence Malaysian Chinese students' pronunciation of English words which contain /l/. Although, based on the results, educational background does not have strong impact on their pronunciation of /r/, it is still worth noting that several students from both groups in this study did make several mispronunciations of this sound. Therefore, English language teachers and educators, especially those who are teaching English in Chinese-medium schools, should consider applying phonics teaching techniques that could enhance students' pronunciation of /l/ and /r/ in various phoneme positions. In addition to that, teachers may also consider designing their own pronunciation teaching materials based on the findings reported in this study, with an emphasis on the learning of pronunciation of /l/ in medial and final position; and /r/ in medial position.

It is important to note here that though the foregoing discussion implies that there is a relationship between educational background and Malaysian Chinese learners' mispronunciations of /l/ and /r/, the available evidence is deemed insufficient to draw any firm conclusion on this issue. Hence, further research is warranted to confirm the preliminary findings on this observed relationship. In this regard, future research may take into consideration other factors like mother tongue interference, target language exposure, pronunciation instruction and language use in various domains to investigate their effects on Malaysian Chinese students' pronunciation of /l/ and /r/ in English words. Furthermore, more detailed research on the phonology of the phonemes such as consonant clusters or the presence of vowels before and after the phoneme should be carried out to determine further effects on the pronunciation of words containing /l/ and /r/. Also, since this study only compared students with Chinese- and Malay-medium education background, future research may also compare students who receive their formal education in Tamil-national-type schools, and other private schools that adopt other language as medium of instruction such as Arabic.

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Appendix A

Word list 1	**Word list 2**
Ladder	Raccoon
Telephone	Borrow
Ill	Grasshopper
Leg	Reach
Television	Sorry
Roll	Mother
Lift	Roast
Aeroplane	Lorry
Snail	Guitar
Low	Roll
Alligator	Eraser
Elephant	Hair
Pencil	Rattan
Laugh	Brisk
Small	Cucumber
Lunch	Rat
Ambulance	Fragile
School	Hammer
Girl	Root
Lamp	Browse
Lorry	Deer
Balloon	Reduce
Ball	Strawberry
Lizard	Dinosaur
Yellow	Rice
Live	Parent
Fill	Hanger
Helicopter	Respond
Pillow	Very
Real	Tiger

Appendix B

Word list Reference

1. **Phoneme /l/ word list reference**

No.	Initial	BrE	NAmE
1.	Ladder	/ˈlædə/	/ˈlædər/
2.	Lizard	/ˈlɪzəd/	/ˈlɪzərd/
3.	Lamp	/læmp/	/læmp/
4.	Laugh	/lɑːf/	/læf/
5.	Leg	/leg/	/leg/
6.	Lift	/lɪft/	/lɪft/
7.	Low	/ləʊ/	/loʊ/
8.	Lunch	/lʌntʃ/	/lʌntʃ/
9.	Lorry	/ˈlɒri/	/ˈlɔːri/
10.	Live	/lɪv/	/lɪv/

No.	Medial	BrE	NAmE
1.	Pillow	/ˈpɪləʊ/	/ˈpɪloʊ/
2.	Yellow	/ˈjeləʊ/	/ˈjeloʊ/
3.	Elephant	/ˈelɪfənt/	/ˈelɪfənt/
4.	Telephone	/ˈtelɪfəʊn/	/ˈtelɪfoʊn/
5.	Television	/ˈtelɪvɪʒn/	ˈtelɪvɪʒn/
6.	Aeroplane	/ˈeərəpleɪn/	/ˈerəpleɪn/
7.	Alligator	/ˈælɪgeɪtə/	/ˈælɪgeɪtər/
8.	Ambulance	/ˈæmbjələns/	/ˈæmbjələns/
9.	Balloon	/bəˈluːn/	/bəˈluːn/
10.	Helicopter	/ˈhelɪkɒptə/	/ˈhelɪkɑːptər/

No.	Final	BrE	NAmE
1.	Fill	/fɪl/	/fɪl/
2.	Girl	/gɜːl/	/gɜːrl/
3.	Pencil	/ˈpensl/	/ˈpensl/
4.	Ill	/ɪl/	/ɪl/
5.	Roll	/rəʊl/	/roʊl/
6.	Snail	/sneɪl/	/sneɪl/
7.	Small	/smɔːl/	/smɔːl/
8.	School	/skuːl/	/skuːl/
9.	Ball	/bɔːl/	/bɔːl/
10.	Real	/ˈriːəl/	/ˈriːəl/

2. Phoneme /l/ word list reference

No.	Initial	BrE	NAmE
1.	Raccoon	/rəˈkuːn/	/ræˈkuːn/
2.	Reach	/riːtʃ/	/riːtʃ/
3.	Roast	/rəʊst/	/roʊst/
4.	Roll	/rəʊl/	/roʊl/
5.	Rattan	/ræˈtæn/; /ˈrætæn/	/ræˈtæn/; /ˈrætæn/
6.	Rat	/ræt/	/ræt/
7.	Root	/ruːt/	/ruːt/
8.	Reduce	/rɪˈdjuːs/	/rɪˈduːs/
9.	Rice	/raɪs/	/raɪs/
10.	Respond	/rɪˈspɒnd/	/rɪˈspɑːnd/

No.	Medial	BrE	NAmE
1.	Borrow	/ˈbɒrəʊ/	/ˈbɔːroʊ/
2.	Sorry	/ˈsɒri/	/ˈsɑːri/
3.	Lorry	/ˈlɒri/	/ˈlɔːri/
4.	Eraser	/ɪˈreɪzə(r)/	/ɪˈreɪsər/
5.	Brisk	/brɪsk/	/brɪsk/
6.	Fragile	/ˈfrædʒaɪl/	/ˈfrædʒl/
7.	Browse	/braʊz/	/braʊz/
8.	Strawberry	/ˈstrɔːbəri/	/ˈstrɔːberi/
9.	Parent	/ˈpeərənt/	/ˈperənt/
10.	Very	/ˈveri/	/ˈveri/

No.	Final	BrE	NAmE
1.	Grasshopper	/ˈgrɑːshɒpə/	/ˈgræshɑːpər/
2.	Mother	/ˈmʌðə/	/ˈmʌðər/
3.	Guitar	/gɪˈtɑː/	/gɪˈtɑːr/
4.	Hair	/heə/	/her/
5.	Cucumber	/ˈkjuːkʌmbə/	/ˈkjuːkʌmbər/
6.	Hammer	/ˈhæmə/	/ˈhæmər/
7.	Deer	/dɪə/	/dɪr/
8.	Dinosaur	/ˈdaɪnəsɔː/	/ˈdaɪnəsɔːr/
9.	Hanger	/ˈhæŋə/	/ˈhæŋər/
10.	Tiger	/ˈtaɪgə/	/ˈtaɪgər/