

CHAPTER III

ANALYSIS

This study shows the difference in the production of English loanwords by each level of informants. It is found that one factor which makes the percentages slightly different from each other is the influence of the Thai writing system on the literate groups.

The findings are separated into categories according to phonological criteria. The study starts with the English stop phonemes.

Initial Stops : English has two series of stops (voiced and voiceless). Although English voiceless stops are sometimes aspirated (as in tore) and sometimes unaspirated (as in store), this difference is allophonic, never serving to distinguish meanings. Hence the difference is relatively unimportant. In Thai, the difference is phonemic and many minimal pairs can be found to show this e.g. ^๓ท [Thii] means 'time' as three times; and ^๓ตี [Tii] means 'to strike'.³

Final Stops : Thai has eight stops initially [P-, T-, K-, Ph-, Th-, Kh-, b-, d-], but only three finally [-P, -T, -K].

³E.M. Anthony, A Teacher's Handbook. S. Silpa Press Co., 31/7 San Chao Jet Lane, New Road, Bangkok, 1956. p. 14.

English has six initial stops and six final stops. Thai final stops are regularly characterized by a closure which is either not followed by a release or is followed by an unaspirated release. English final stops are usually unreleased, but there is some variation between released and non-released aspiration and lack of aspiration, however the distinction between voiced and voiceless stops remain.⁴

The Glottal Stop is a marked phonetic feature of many Thai syllable-endings but usually connotes as non-phonemic feature.

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⁴Ibid. p. 16.

TABLE 1

COMPARISON OF THE PRODUCTION OF THE ENGLISH INITIAL STOPS BY THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over n. 6		Under n. 6		Il.		
		no. of oc.	Per.	no. of oc.	Per.	no. of oc.	Per.	
[b-]	[b-]	314	99.68	309	100	-	-	[b1-]
[d-]	[d-]	135	100	129	100	-	-	
[g-]	[k-]	132	97.77	130	98.48	-	-	[Kh-][Kr-]
[p-]	[p-]	186	59.47	217	70.68	14	100	[Ph-]
[t-]	[Th-]	159	75.71	150	76.53	44	100	[T-]
[k-]	[Kh-]	293	64.28	300	72.88	30	100	[K-]

TABLE 2

COMPARISON OF THE PRODUCTION OF THE ENGLISH MEDIAL STOPS BY THAI INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		no. of oc.	Per.	no. of oc.	Per.	no. of oc.	Per.	
[-b-]	[-b-]	74	100	68	100	15	100	
[-d-]	[-d-]	148	100	131	100	-	-	
[-g-]	[-K-]	45	100	45	100	-	-	
[-p-]	[-P-]	95	76	87	76.99	-	-	[-Ph-]
[-t-]	[-T-]	98	72.59	93	73.80	15	100	[-Th-]
[-k-]	[-K-]	149	66.22	133	59.11	-	-	[-Kh-]

TABLE 3

COMPARISON OF THE PRODUCTION OF THE ENGLISH FINAL STOPS BY THE NATIVE SPEAKERS OF THAI

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
[-b]	[-P]	30	100	29	100	-	-	
[-d]	[-T]	35	77.77	30	65.21	13	92.85	[-Th], [-n]
[-g]	[-K]	30	100	30	100	-	-	
[-pʳ]	[-P]	149	90.76	148	90.85	30	100	[-n]
[-tʳ]	[-T]	281	76.29	238	76.03	57	100	[-Th]
[-kʳ]	[-K]	222	60.55	219	78.90	57	100	[-Kh]

Table no. 1, 2, and 3 show that the percentage of the production of the English stop phones by each level of the native speakers of Thai is similar. That is to say most of the informants produce these English phones the same way.

A notable feature is that the percentages of the two literate groups are nearby always similar, although different from that of the illiterates. It can also be seen that the number of production of the English stop phones is more uniform amongst the illiterates.

TABLE 4

COMPARISON OF THE PRODUCTION OF THE ENGLISH AFFRICATES BY THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones
		Over n. 6		Under n. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
[tʃ-]	[c-]	90	66.67	86	65.15	15	100	[tʃ-]
[-tʃ-]	[-c-]	73	49.32	75	61.33	-	-	[-tʃ-]
[tʃ]	[-T]	30	100	28	100	-	-	
[ch-]	[Ch-]	75	100	75	100	13	92.85	[s-]
[-ch-]	[-Ch-]	45	66.67	42	61.90	-	-	[-T-], [-S-]
[-ch]	[-T]	60	93.33	57	91.23	14	100	[-S], [-Ch]

It is found that the illiterate group produce these affricates a little different from the literate groups.

Fricatives present in English and Thai, but with different distribution . There are eleven fricative phonemes in English, (voiced and voiceless). Nine [f, v, θ, ð, s, z, sh, and, zh] can occur either initially, medially, or finally.* Thai has three fricative phonemes. (all voiceless).

Unfortunately, the corpus does not include all the English fricatives, so that it was not possible to obtain any results of the production of the number and distribution of English fricatives is markedly different from Thai. In Thai there are no voiced fricatives at all and voiceless fricatives occur in initial position only.

* See consonant chart

TABLE 5

COMPARISON OF THE PRODUCTION OF THE ENGLISH INITIAL FRICATIVES BY THAI INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
[f-]	[f-]	163	100	164	100	15	100	
[s-]	[s-]	300	100	278	99.28	-	-	[Ch-]
[sh-]	[Ch-]	98	83.47	85	88.54	13	92.85	[S-]
[h-]	[h-]	177	100	170	100	-	-	



TABLE 6

COMPARISON OF THE PRODUCTION OF THE ENGLISH
FRICATIVES IN MEDIAL POSITION BY THAI INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over n. 6		Under n. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
[-f-]	[-f-]	120	100	103	100	14	100	
[-v-]	[-w-]	60	100	56	100	-	-	
[-s-]	[-S-]	120	100	103	100	-	-	
[-z-]	[-S-]	30	100	30	100	-	-	

TABLE 7

COMPARISON OF THE PRODUCTION OF THE ENGLISH FINAL FRICATIVES BY THE THAI INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over n. 6		Under n. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
[-f]	[-P]	35	58.33	29	50	-	-	[-f]
[-s]	[-T]	59	49.59	57	51.81	12	85.71	[-S] [-K]
[-z]	[-S]	11	36.67	13	81.25	-	-	[-T], [-Zero]

Tables 5, 6, 7 show little differences among the three levels of the informants. It is seen that English fricatives are produced similarly by all three levels.

The lateral and retroflex are often mixed up by Thai people. The tables below show their confusion.

TABLE 8

COMPARISON OF THE PRODUCTION OF ENGLISH LATERAL OF THE THAI INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
[l-]	[l-]	161	98.77	134	84.78	28	93.33	[r-]
[-l-]	[-l-]	218	90.83	172	71.61	14	93.33	[-r-]
[-l]	[-n]	94	52.22	67	37.22	15	100	[-zero-][-l]

TABLE 9

COMPARISON OF THE PRODUCTION OF ENGLISH [r] OF THE THAI INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over n. 6		Under n. 6		II.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
[r-]	[r-]	115	88.46	56	51.37	-	-	[l-]
[-r-]	[-r-]	341	83.37	260	64.92	2	13.33	[-l-]
[-r]	[Zero]	15	100	15	100	13	86.66	

Table no. 8; 9 show the problems in producing [l] and [r]. The informants under matayom 6 have more problems in producing [l] of every position, and the illiterates do in producing [-r-]. The informants over matayom 6 have problems in producing [-l].

English [-r] is absent by the speakers of Thai as well as those of the British English. It is so because the Thai people are long accustomed to the speakers of standard British English.

Both English and Thai has 3 nasal phonemes. They are differently distributed. Thai nasal phonemes occur in all positions while only 2 [m, n] do in English. [ŋ] never occurs initially in English.

TABLE 10

COMPARISON OF THE PRODUCTION OF ENGLISH INITIAL NASALS BY THE THAI INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
[m-]	[m-]	194	100	187	100	14	100	
[n-]	[n-]	150	100	145	100	27	100	

TABLE 11

COMPARISON OF THE PRODUCTION OF ENGLISH MEDIAL NASALS BY THE THAI INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
[-m-]	[-m-]	210	100	199	100	-	-	
[-n-]	[-n-]	360	100	345	100	30	100	

TABLE 12

COMPARISON OF THE PRODUCTION OF ENGLISH FINAL NASALS BY THE THAI INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over n. 6		Under n. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
[-a]	[-a]	315	100	304	100	-	-	
[-n]	[-n]	537	100	520	100	44	100	
[-ng]	[-ng]	15	100	15	100	13	100	

Table no. 10, 11, and 12 show the same way of the production of the nasals in Thai. They also show that the Thai informants produce these phonemes very well.

TABLE 13

COMPARISON OF THE PRODUCTION OF SOME OTHER ENGLISH CONSONANTS AMONG THAI INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over n. 6		Under n. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
-w-	-w-	15	100	15	100	45	100	
j-	j-	30	100	25	100	14	100	

It is found that the English [-w-] is reproduced by the literate groups as well as the native speakers of English, but English [j-] is spoken as [j-] by all Thai Informants.

CONSONANT CLUSTERS

There are in English a great many consonant clusters which occur in both initial and final position.⁵ In Thai there are eleven initial clusters /Pr, pl, phr, phl, Tr, Kr, Kl, Kw, Khr, Khl, Khw,/- which in general occur freely before all vowels. There are no final consonant clusters in Thai.

Consonant clusters here are divided into categories as shown in the following tables.

⁵Foongfuang Kruatrachue, Thai and English : A Comparative Study of Phonology for Pedagogical Applications. Indiana University, Bloomington, Indiana, p. 71.

TABLE 16

COMPARISON OF THE PRODUCTION OF THE ENGLISH CONSONANT CLUSTERS WITH [r] AND [l]

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over n. 6		Under n. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
C[r-]	C[r-]	252	79.74	174	60.42	-	-	C[Zero], C[l-]
C[l-]	C[l-]	106	58.88	88	51.72	-	-	C[Zero]-, C[r-]
-C[r-]-	-C[r-]	98	79.67	87	72.50	-	-	-C[Zero]-, -C[l-]
-C[l-]-	-C[l-]	24	85.71	17	77.27	-	-	-C[Zero]-, -C[r-]

The table no. 16 shows most literate people produce the consonant clusters of [r] and [l] correctly, while the illiterate ones do not. It is seen that the illiterates and some literates substitute only one consonant for [r] or [l] cluster.

TABLE 17

COMPARISON OF THE PRODUCTION OF THE ENGLISH CONSONANT CLUSTER OF [khw]

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
khw-	Khw-	15	100	15	100	-	-	

The table no. 17 shows no problem of producing the initial cluster [khw-] among the literate groups of Thai.

TABLE 18

COMPARISON OF THE PRODUCTION OF THE ENGLISH MEDIAL CONSONANT CLUSTERS IN THAI

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
[-ps-]	[-PS-]	15	100	14	100	-	-	
[-pt-]	[-PT-]	15	100	15	100	-	-	
[-tm-]	[-Tm]	15	100	14	100	-	-	
[-td-]	[-Td-]	15	100	14	100	-	-	
[-tb-]	[-Tb-]	30	100	29	100	15	100	
[-tn-]	[-Tn-]	15	100	14	93.33	-	-	[-Sn-]
[-tp-]	[-Tl-]	10	66.67	7	46.67	-	-	[-Pb-], [-TPh-]
[-tsh-]	[-Ch-]	15	100	15	100	-	-	
[ks h-]	[-KCh-]	15	100	13	100	-	-	
[-kc h-]	[-KCh-]	15	100	12	100	-	-	
[-kt-]	[-KTh-]	23	51.11	27	60	26	100	[-KT-]
[-kn-]	[-Kn-]	30	100	30	100	-	-	

COMPARISON OF THE PRODUCTION OF THE ENGLISH MEDIAL CONSONANT CLUSTERS IN THAI

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over a. 6		Under a. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
[-ks-]	[-KS-]	44	100	45	100	-	-	
[-db-]	[-Tb-]	15	100	15	100	-	-	
[-gb-]	[-kb-]	15	100	15	100	-	-	
[-fθ-]	[-PTθ-]	15	100	15	100	-	-	
[-lf-]	[-nf-]	21	70	19	65.56	-	-	[-lf-]
[-ls-]	[-nS-]	14	93.33	9	60	-	-	[-lS-]
[-lb-]	[-lab-]	6	40	12	80	-	-	[-lab-]
[-lzk-]	[-sK-]	8	53.33	4	28.57	-	-	[-səK-], [-lSK-]
[-lp-]	[-mP-]	28	62.22	30	66.67	-	-	[-mP-]
[-mb-]	[-mb-]	30	100	28	100	-	-	
[-mf-]	[-mf-]	15	100	14	100	-	-	
[-nk-]	[-nkb-]	15	100	15	100	-	-	
[-nz-]	[-n -]	15	100	15	100	-	-	

COMPARISON OF THE PRODUCTION OF THE ENGLISH MEDIAL CONSONANT CLUSTERS IN THAI

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
[-nd-]	[-nd-]	30	100	30	100	-	-	
[-ns-]	[-nS-]	59	100	52	100	-	-	
[-nkr-]	[-nkr]	14	100	11	73.33	-	-	[-nkl-]
[-nt-]	[-nT-]	30	100	30	100	15	100	
[-ngp-]	[-ngP-]	15	100	15	100	-	-	
[-ngg-]	[-ngK-]	15	100	15	100	-	-	
[-pst-]	[-PSəT-]	-	-	-	-	9	69.23	[-səT-], [-TSəT-]

Most of the medial consonant clusters are produced the same among the three groups of informants. Some of them are a little differently produced between the two groups of literates. The substitutions here are the same as the initial and final consonants mentioned before.

Vowels



Vowels in both Thai and English have certain characteristics in common. All vowels in both languages are regularly voiced. There are no voiceless vowels in either language.⁶ In order to understand them more clearly, the analysis of Thai and English vowels should be broadly outlined here.

1. Quality of vowels of the two languages is partially comparable : high, mid, low, in conjunction with front (unrounded), central (unrounded), back (rounded).

2. Thai vowels are paired : simple (+ length) and reduced (- length). This means that length (quantity) is phonemic, i.e., a minimum feature that distinguishes one word from another. [Example: /hòt/ = mushroom, and /heèt/ = cause]

3. The English vowels are differently from each other primarily through differences in quality i.e., tense, lax, glided, unglided, and variation in tongue positions. There is length variation in English vowels, but it is largely dependent on the nature of the consonants which follow them. [Example : bit - bid]⁷

The presentation of the vowels here is divided according to their positions, which are initial, medial, and final position.

⁶Op.-cit. E.M. Anthony, p. 10.

⁷Op.-cit. P. Kruatrachue, p. 88.

TABLE 19

COMPARISON OF THE PRODUCTION OF THE ENGLISH INITIAL VOWELS AMONG THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		II.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
[i-]	[i [?]]	27	60.00	29	65.90	-	-	
	[i-]	15	33.33	13	29.54	-	-	
	[ii-]	3	6.67	1	2.27	-	-	
	[a-]	-	-	1	2.27	-	-	
[e-]	[e-]	11	84.61	8	88.89	-	-	
	[æ-]	2	15.30	1	11.11	-	-	
[æe-]	[ææ-]	14	93.33	12	80.00	-	-	
	[ee-]	1	6.67	2	13.34	-	-	
	[æ [?]]	-	-	1	6.67	-	-	
[æ-]	[æ-]	35	50.00	44	50.00	-	-	
	[a [?]]	40	44.44	41	46.59	-	-	
	[aa-]	3	3.33	3	3.40	-	-	

COMPARISON OF THE PRODUCTION OF THE ENGLISH INITIAL VOWELS AMONG THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
[ɔ-]	[a-]	2	2.22	-	-	-	-	
	[ɔ-]	30	51.72	24	45.28	-	-	
	[oo-]	24	41.37	17	32.07	-	-	
	[o [?] -]	4	6.90	7	13.20	-	-	
[ɔ:-]	[oo-]	-	-	5	9.45	-	-	
	[o [?] -]	8	53.33	6	54.55	-	-	
[ai-]	[oo-]	7	46.67	5	45.55	-	-	
	[ai [?] -]	30	100.00	28	93.33	-	-	
[ou-]	[aa-]	-	-	2	6.67	-	-	
	[oo-]	42	93.33	31	68.89	15	100.00	
	[o [?] -]	3	6.67	14	31.11	-	-	

From this table the English initial vowels, which are differently produced among the three levels of the informants are [æ-], [ɔ-], and [ou-]. The substitution of each phone among them is the same. It is noticed that the informants under mathayom 6 produced these three sounds differently from the other two groups. Besides, it can be said that some other English vowels have more ways of producing in Thai for instance [ɪ-], and [æ-].

TABLE 20

COMPARISON OF THE PRODUCTION OF THE ENGLISH MEDIAL VOWELS AMONG THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over n. 6		Under n. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
-i-	i [?]	275	22.92	290	26.40	-	-	
	i	613	51.08	561	51.28	88	86.27	
	ii	220	18.33	158	14.41	8	7.84	
	a	31	2.59	32	2.91	-	-	
	æ	16	1.33	12	1.09	-	-	
	æ̃	-	-	1	0.09	-	-	
	e	30	2.50	26	2.37	-	-	
	ee	14	1.17	15	1.36	-	-	
	ə	1	0.08	1	0.09	-	-	
	u	-	-	-	-	4	3.92	
	iə	-	-	-	-	2	1.96	

COMPARISON OF THE PRODUCTION OF THE ENGLISH MEDIAL VOWELS AMONG THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
-i:-	i	195	51.58	178	48.77	26	57.78	
	i	108	28.57	116	31.78	5	11.11	
	ee	25	6.50	38	10.41	1	2.22	
	i ²	30	7.80	25	6.85	13	28.89	
	e	20	5.20	7	1.89	-	-	
	æ	-	-	1	0.27	-	-	
-e-	e	358	72.52	305	67.63	26	100.00	
	ee	96	19.39	92	20.39	-	-	
	æ	17	3.43	28	6.21	-	-	
	a [?]	4	0.08	9	1.99	-	-	
	e [?]	14	0.28	12	2.67	-	-	
	ææ	2	0.04	1	0.23	-	-	
	aa	1	0.02	-	-	-	-	

COMPARISON OF THE PRODUCTION OF THE ENGLISH MEDIAL VOWELS AMONG THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over n. 6		Under n. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
-æ-	i	-	-	1	0.23	-	-	
	ɔ̄ [?]	2	0.04	3	0.69	-	-	
	æ	233	40.31	261	47.45	26	59.09	
	ǣ	143	23.01	100	18.18	2	4.55	
	e	23	2.25	7	1.27	1	2.27	
	a	77	13.32	79	14.36	15	34.09	
	ǣ	74	12.80	50	9.09	-	-	
	ǣ [?]	15	2.59	23	4.18	-	-	
	ǣ [?]	11	1.90	15	2.72	-	-	
	ē [?]	12	2.07	6	1.09	-	-	
-u:-	ee	-	-	3	0.54	-	-	
	-	-	-	6	1.09	-	-	
	uu	166	58.45	134	49.63	12	85.71	

COMPARISON OF THE PRODUCTION OF THE ENGLISH MEDIAL VOWELS AMONG THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
	u	118	41.55	135	50.00	2	14.29	
	oo	-	-	1	1.37	-	-	
-u-	u	45	100.00	44	97.78	15	100.00	
	uu	-	-	1	2.22	-	-	
-o-	oc	30	100.00	16	53.33	-	-	
	o ²	-	-	14	46.67	-	-	
-o:-	oo	182	75.83	162	71.37	8	27.59	
	o	42	17.50	44	14.98	21	72.41	
	o ²	15	6.30	17	7.49	-	-	
	o ²	1	0.42	3	1.32	-	-	
	oo	-	-	1	0.44	-	-	
-o-	-o-	187	57.01	187	54.20	15	100.00	
	oo	115	35.06	92	26.67	-	-	

COMPARISON OF THE PRODUCTION OF THE ENGLISH MEDIAL VOWELS AMONG THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
	oo	12	3.60	21	6.30	-	-	
	o [?]	11	3.30	17	4.93	-	-	
	o [?]	3	0.90	25	7.25	-	-	
	u	-	-	1	0.29	-	-	
	e [?]	-	-	1	0.29	-	-	
	o [?]	-	-	1	0.29	-	-	
-o:-	oo	45	77.59	35	66.04	25	86.21	
	o	8	13.76	6	11.32	4	13.79	
	o [?]	4	6.88	12	22.64	-	-	
	ee	1	1.72	-	-	-	-	
-A-	a	224	87.84	210	87.14	-	-	
	aa	15	5.85	16	6.64	-	-	
	a [?]	14	5.46	15	6.22	-	-	

COMPARISON OF THE PRODUCTION OF THE ENGLISH MEDIAL VOWELS AMONG THE INFANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
-uə-	e [?] _i	1	0.39	-	-	-	-	
	ə	1	0.39	-	-	-	-	
	uə	30	100.00	26	92.86	-	-	
	u	-	-	1	3.57	-	-	
	aa	-	-	1	3.57	-	-	
-eə-	e [?] _i	3	20.00	13	86.67	-	-	
	ee	12	80.00	2	13.33	-	-	
-ea-	ae	15	100.00	14	93.33	-	-	
	ee	-	-	1	6.67	-	-	
-ai-	ai	126	56.50	140	65.42	18	94.74	
	ai [?] _i	54	24.21	46	21.49	-	-	
	aa	43	19.28	28	13.08	-	-	
	o [?] _i	-	-	-	-	1	5.26	

COMPARISON OF THE PRODUCTION OF THE ENGLISH MEDIAL VOWELS AMONG THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over n. 6		Under n. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
-oi-	oo	13	86.67	13	92.85	-	-	
	o	2	13.33	1	7.15	-	-	
-ei-	ee	234	78.98	252	84.85	26	86.67	
	e	53	17.93	35	11.83	4	13.33	
	e ²	6	4.08	7	2.31	-	-	
	ae	2	0.68	1	0.34	-	-	
	a	-	-	2	0.67	-	-	
-ia-	ia	60	57.14	60	58.82	-	-	
	ii	19	18.09	16	15.68	-	-	
	u	13	11.90	13	12.74	-	-	
	i ²	11	10.47	13	12.74	-	-	
	uu	2	1.90	-	-	-	-	
-ju:-	iu	30	66.67	29	69.05	-	-	

COMPARISON OF THE PRODUCTION OF THE ENGLISH MEDIAL VOWELS AMONG THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
-ju-	u	15	33.33	12	28.57	-	-	
	uu	-	-	1	2.38	-	-	
	u	22	48.89	22	51.16	-	-	
	i	15	33.33	15	34.88	-	-	
-je-	uu	8	17.78	6	13.95	-	-	
	iə	15	100.00	15	100.00	-	-	
-aiə-	ai [?] -aa	14	93.33	3	21.43	-	-	
	ai [?] -a	1	6.67	11	78.57	-	-	
-ə-	a	133	16.73	139	18.09	15	25.42	
	a [?]	129	16.23	154	20.05	15	25.42	
	aa	97	12.20	63	8.20	-	-	
	e	82	20.31	73	9.50	-	-	
	a [?]	72	9.06	71	9.24	-	-	

COMPARISON OF THE PRODUCTION OF THE ENGLISH MEDIAL VOWELS AMONG THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other phones Substituted
		Over n. 6		Under n. 6		ll.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
- ə -	əə	55	6.92	35	4.55	-	-	
	oo	43	5.41	13	1.69	4	6.79	
	o	35	4.40	30	3.90	15	25.42	
	ee	34	4.28	38	4.95	-	-	
	o [?]	31	3.89	59	7.68	10	16.95	
	o [?]	18	2.26	23	2.99	-	-	
	oo	14	1.75	21	2.73	-	-	
	iə	15	1.76	15	1.95	-	-	
	i [?]	15	1.76	15	1.95	-	-	
	u	13	1.64	13	1.69	-	-	
	uu	2	0.25	-	-	-	-	
	ai	-	-	1	0.13	-	-	
	o	-	-	2	0.26	-	-	

COMPARISON OF THE PRODUCTION OF THE ENGLISH MEDIAL VOWELS AMONG THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		ll.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
-a:-	ə	7	0.88	3	0.39	-	-	
	aa	244	95.68	215	85.31	14	48.28	
	a ²	9	3.52	26	24.76	-	-	
-ou-	a	2	0.78	11	4.36	15	51.72	
	oo	305	84.96	237	68.10	18	64.29	
	o ²	16	4.48	64	18.39	-	-	
	oo	21	5.88	19	5.46	-	-	
	o ²	9	2.52	14	4.02	-	-	
	o	8	2.24	14	4.02	10	35.71	
	oo	15	50.00	15	50.00	-	-	
-au-	aa	15	50.00	14	46.67	-	-	
	aa	-	-	1	3.33	-	-	
	u ²	-	-	-	-	8	50.00	
	ə ²	-	-	-	-	7	43.75	
	a ²	-	-	-	-	1	6.25	

The English medial vowel which is produced the same among these informants is only [-u-]. It is noticed that the illiterates reproduced these vowels in the similar way which differs from the illiterates. Some medial vowels differently reproduced between the literates are [-o-], [-æ-], and [-aɪə], [-ou-] is produced the same between the informants under mathayon 6 and the illiterates.

TABLE 21

COMPARISON OF THE PRODUCTION OF THE FINAL ENGLISH VOWELS AMONG THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over n. 6		Under n. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
-i:	ii	59	100.00	58	100.00	-	-	
-i	ii	239	94.09	230	93.12	30	100.00	
	ee	15	5.91	14	5.26	-	-	
	ie	-	-	2	0.80	-	-	
	ae	-	-	1	0.40	-	-	
	aa	30	100.00	29	100.00	-	-	
-u:	uu	30	100.00	29	100.00	-	-	
-o:	oo	14	93.33	14	100.00	-	-	
	oo	1	6.67	-	-	-	-	
-ə	əə	296	66.22	268	62.24	29	100.00	
	ae	90	20.13	97	22.35	-	-	

COMPARISON OF THE PRODUCTION OF THE FINAL ENGLISH VOWELS AMONG THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other Phones Substituted
		Over m. 6		Under m. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
	-	60	13.42	60	13.88	-	-	
	oo	-	-	1	0.23	-	-	
	ə	1	0.22	8	1.84	-	-	
-ə:	əə	15	100.00	15	100.00	-	-	
-ei	ee	75	100.00	72	100.00	-	-	
-eo	ææ	15	100.00	14	93.33	-	-	
	ee	-	-	1	6.67	-	-	
-iə	iə	153	93.28	148	92.50	-	-	
	ii	11	6.72	12	7.50	-	-	
-ou	oo	184	100.00	188	99.47	-	-	
	o [?]	-	-	1	0.53	-	-	
-oi	oi	14	46.67	15	50.00	11	73.33	
	oai	16	53.33	15	50.00	4	26.67	

COMPARISON OF THE PRODUCTION OF THE FINAL ENGLISH VOWELS AMONG THE INFORMANTS

English Phones	Thai Phones Substituted	Actual Production						Other phones Substituted
		Over n. 6		Under n. 6		Il.		
		No. of oc.	Per.	No. of oc.	Per.	No. of oc.	Per.	
-ai	aaɪ	51	85.00	45	76.28	-	-	
	ai	9	15.00	14	23.73	12	100.00	
-ju:	au	30	50.00	30	50.85	-	-	
	iu	30	50.00	29	49.15	-	-	
-jə	iə	15	100.00	13	100.00	-	-	
-iou	i [?] oo	30	100.00	30	100.00	-	-	
-aia	ai	2	13.33	8	61.53	-	-	
	aaɪ	13	86.67	5	38.47	-	-	

It is found that the English [-i], [-ɔ:], [-ə], [-so], [-oi], [-ai], and [-aia] are reproduced differently from each other among the three levels of the informants. [-i], [-ə], [-oi], and [-ai] are spoken the same among the literate informants but differently from the illiterates. [-aia] is remarkably differently even between the literate informants.

Tone

Thai is tone language,^{8, 9} but English is an intonation language. Each Thai syllable contains a characteristic pitch which is as integral a part of that syllable as any of the other sound features which serve to identify it.¹⁰ There are five distinctive tones, namely, the mid tone, the low tone, the high tone, and the rising tone, phonemically indicated / /' /` /, / ^ /, / ' /, and / v /, respectively.¹¹

The following table shows the percentages of tones produced by the informants in English loan-words.

⁸Kenneth L. Pike, *Tone Languages*, Ann Arbor University of Michigan Press, p. 3.

⁹E.K. Anthony *Reading Tone in Thai Syllables*, p. 4.

¹⁰*Ibid.* p.

¹¹*Op. cit.* F. Kruatrachue p.

TABLE 22

DISTRIBUTION OF TONES IN ENGLISH LOAN-WORDS

Total No. of Occurance	Actual Tonemes Produced and Percentage of occurrence				
	mid / /	low /•/	falling /˘/	high /˙/	rising /ˊ/
<u>Informants over Matha- yom 6</u>					
4503	2471	203	48	1743	38
	54.87 %	4.51 %	1.06 %	38.71 %	0.84 %
<u>Informants under Matha- yom 6</u>					
4150	2406	180	72	1450	42
	57.95 %	4.34 %	1.73 %	34.94 %	1.01 %
<u>Illiterate Informants</u>					
360	112	4	0	244	0
	31.11 %	1.11 %	0 %	67.78 %	0 %
<u>Average for all groups</u>					
3,04	1163	129	40	1146	27
	47.98 %	3.33 %	0.93 %	47.14 %	0.68 %



It was found that as a rule syllables which in English bear primary stress were most frequently produced with a mid tone by the Thai informants amongst the first two groups, i.e., the literates. On the other hand amongst the illiterates, English syllables with primary stress were usually reproduced with a high tone.