Notice of the Final Oral Examination
for the Degree of Doctor of Philosophy

of

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MA (University of Victoria, 2010)
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“L2 Letter-Sound Correspondence: Mapping Between English Vowel Graphemes and Phonomes by Japanese EAL Learners”

Department of Linguistics

Tuesday, August 23, 2016
3:00 P.M.
David Turpin Building
Room A144

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Dr. Marc Lapprand, Department of French, UVic

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**Abstract**

Graphophonic skills, that is, to correctly spell out the sounds heard and to read out orthography target-like are some of the most important aspects in successfully learning a second language pronunciation in a formal setting. The main focus of this dissertation is to investigate to what extent Japanese English-as-an-additional-language (EAL) learners have mastered default grapheme-phoneme correspondence (GPC) patterns of North American English vowels.

One important aspect of the Japanese language that affects Japanese EAL learners’ English graphophonetic skills can be what I term *loanword rōmaji*, which is foreign word or imitation foreign word spellings read based on what Kaneko (2006) and Vendelin and Peperkamp (2006) call *between-language grapheme-phoneme correspondence*. In Japan, loanword rōmaji is ubiquitous in both real English words, such as *<open>* read as the Japanized pronunciation /o:puN/, and made-up words, such as *<Roland>* (as opposed regularly spelled *<Rōrando/Rôrando>* ) read as Japa/ro:raNdo/ (a Japanese manufacturer of electronic musical instruments) (< > = graphemes, / / = phonemes). If native Japanese speakers assume that loanword rōmaji and English spelling are the same entity, a great influence from loanword rōmaji is expected on English graphophonic skills, whether positively or negatively. In consideration of this, I examined loanword rōmaji vowel GPC patterns. In my data from 424 English-looking proper names (e.g., *<SMAP>*-Japa/sumappu/, *<UCARY>*-Japa/jukari/, etc.), four of the one-mora vowels Japa/a, i, e, o/ and four of the vowel monographs <a, i, e, o> frequently correspond with each other respectively according to regular rōmaji ways. On the other hand, two-mora monophthongs or vowel sequences have more complicated relationships (e.g., *<y, ee, ie, ea, iy, yi>*-Japa/i:/, etc.). Overall, loanword rōmaji is partially alphasyllabic, partially logographic, and partially even phonetic (as opposed to phonemic).

Meanwhile, in order to examine Japanese EAL learners’ English graphophonetic skills, I conducted both reading and spelling tasks of English-like one-syllable nonsense words. In the reading task (e.g., reading aloud *<snad>, <staw>, <stoe>, <nube>, etc.*),
the Japanese EAL participants read vowel letters differently from native English speaking participants around 40.1% of the time. In the spelling task (e.g., listening and spelling out native utterances of such syllables as [sneɪ], [zaːd], [gau], [ʃʌd], etc.), the Japanese EAL participants spelled out vowel sounds differently from native English speaking participants 60.0% of the time. These results suggest that the Japanese EAL participants’ English vowel grapheme-phoneme mapping patterns were quite different from those of the native English-speaking participants.

In more details, the aforementioned loanword rōmaji seemed positively transferred to Japanese EAL learners’ English GPC patterns. As a result, the Japanese participants performed well, especially in the reading task, with silent-E as an “alphabet/long sound” marker (e.g., <a_e>-to-Eng[ɛɪ] and <i_e>-to-Eng[ai]), as well as <ee>-to-Eng[i:], <ie>-to-Eng[i:] (but not [ai]), <oo>-to-Eng[u:] conversions, and so forth ([ ] = phonetic sounds); compare the common loanword rōmaji correspondences <a_e>-Japa/ei/, <i_e>-Japa/ai/, <ee>-Japa/i:, <ie>-Japa/i:, and <oo>-Japa/u:/. Some loanword rōmaji patterns seemed negatively transferred to the Japanese participants’ English and they had difficulty in correspondences like <ow, ou>-Eng[au], <a>-Eng[æ:], <i>-Eng[ɪ], <o>-Eng[ɑ:] in both grapheme-to-phoneme and phoneme-to-grapheme conversions, as well as in the Eng[ou]-to-<o#> correspondence especially in the phoneme-to-grapheme conversion, and so forth; compare the common loanword rōmaji correspondences <ow>-Japa/o:, <ou>-Japa/o:, u, o/, <a>-Japa/a/([ɐ̆]), <i>-Japa/i/([ɪ]), and <o>-Japa/o/([o̞ɪ]). Some GPC patterns, such as <ai>-to-Eng[ɛɪ] conversion and to a lesser extent Eng[æɛ] (diphthongized /æɛ/)-to-<a> conversion, were performed better than expected, even though these patterns were not frequently or never observed in the loanword rōmaji data I collected; compare the common loanword rōmaji correspondences <ai>-Japa/ai/ and <a>-Japa/a/([ɐ̆]).

Overall, the Japanese participants had severe problems with correspondences such as <ow, ou>-Eng[au], <au, aw>-Eng[ɑ:], <i>-Eng[ɪ], <u, uh>-Eng[ʌ], <oe, oa, o_e, o#>-Eng[ou], and <o>-Eng[ɑ:]. The results seem to suggest that Japanese EAL learners can benefit from being taught English default GPC patterns in order for them to improve on their graphophonic skills.