WHAT CAUSES SPELLING ERRORS OF THAI EFL STUDENTS?

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Abstract

The present study aimed to investigate types of spelling inaccuracy and to examine the causes of misspellings found in first year Thai university students' sentence writing. Participants were 31 first year Thai university students at Prince of Songkla University majoring in International Business (focusing on China). The findings showed ten types of spelling errors including consonant substitutions, vowel substitutions, space inaccuracy, confusion in writing scripts, inaccurate double consonants, inflectional endings, letter reversals, vowel omissions, and consonant omissions. The results revealed that differences between English and Thai writing systems were not the major causes of errors. In fact, it was the lack of adequate awareness of phonology and insufficient knowledge of inflectional morphology that were found to be the prime causes of their mistakes. Some implications are suggested here to improve teaching.

Key words: spelling errors, causes of spelling errors, orthography, writing systems, linguistic differences between L1 and L2
Introduction

English writing skills are significant as it plays an important role in communication. To convey messages effectively, accurate spelling is strongly required. Spelling is essential since one misspelling may change the meaning which the author intended to convey in the text (Fagerberg, 2006). Spelling in particular is one of the many English writing problems EFL students encounter, including Thai students. Considering all the writing errors made by Thai students, misspellings are found to be amongst the most frequent mistakes most students make (Sattayatham, and Ratanapinyowong, 2008; Na-ngam, 2005; Khaourai, 2002; Tananart, 2000). As Na-ngam (2005) highlights, misspellings are not found only in lower levels but also in higher levels. Although spelling is crucial for second language users to write with accuracy, there is still a limited number of research on this matter (Cook, 1997). Undoubtedly, knowing and understanding the causes of misspellings is one technique to help improve Thai students' spelling proficiency.

Background

Thai writing system

It may be difficult to gain insights into the reasons why Thai students produce spelling mistakes without understanding the Thai writing system. The writing system is defined by Coulmas (1999, p. 560) as 'a set of visible or tactile signs used to represent units of language in a systematic way'. Thai is a sound-based written system. The sound-based writing links letters as written symbols or graphemes to sounds or phonemes (Cook, 2004). For example, <น> in Thai corresponds to the phoneme /k/ or the grapheme <k> in English. Thai scripts are originally Indic. Thai writing is written from left to right without spacing between words. Spaces are implemented only to separate sentences and phrases. The Thai orthography
consists of consonants and vowels. There are 44 consonant symbols with 21 phonemes, for instance, two consonant symbols <ร, ฤ> in Thai are equivalent to the grapheme <l> which corresponds to the phoneme /l/ in English, and there are 19 vowel symbols and 21 core vowel phonemes; for example, the Thai vowel -widget with /ku/ (Diller, 1996, p. 458). These consonants provide different sounds depending on their initial or final positions. Thai can be mapped between graphemes and phonemes, but there are multi-graphemes that correspond to phonemes, such as /tɕʰ/, /kh/, /ph/, etc. Thai consonant letters are written in a linear order, but vowels can be put in any places: preceding, following, above, or below a consonant letter. Thai is a tonal language consisting of five tonal marks which result in different tones and meanings of syllables and words (Winskel and Iemwanthong, 2009). Cook (2004) explains that the phonological route which converts letters to phonemes allows spellers to spell unseen or unknown words. Most sounds of Thai alphabetic symbols correspond to English letters and phonemes, so Thai students can spell words they have not seen or learned. Letter and sound correspondence also fosters students to memorize spelling. Therefore, it can be noted that correspondence between Thai graphemes and English phonemes can aid Thai students to cope with English spelling.

Causes of spelling errors

Apart from knowing how the Thai writing system works, understanding why students make spelling errors is essential. A number of research conducted with students learning English at different levels as a second language or foreign language reveals some causes leading to misspelling. Many studies agree on the fact that the first main cause of spelling errors is irregularities of the English spelling system (Smith, 1973; Bahloul, 2007; Al-Hassan, 2011; Jayousi, 2011). The fact that English spelling is inconsistent makes it more difficult and requires more effort to memorize. For instance, vowels <ea> can be pronounced as /i:/ in
freak or /ei/ in break. Similarly, /i:/ can be spelled using <ea> in cream or <ee> in bee. This inconsistency requires spellers to put more attention to correct spellings of particular words. Some other causes of mistakes occur as a result of linguistic differences between English and learners’ first languages (Brown 2000; Swan and Smith, 2001; Saville-Troike, 2006; Corder, 1993). These causes take place as a result of different orthography, morphology (Tonga et al, 2009), and phonology (Holligan and Johnston, 1991; Hatfield and Patterson, 1983). The percentage of serious causes was even given by Al-Jarf (2009) who states in his work that 63% of the spelling errors were phonological and 37% were orthographic. This supports the fact that spelling errors are caused by those aspects as mentioned earlier. Other light serious mistakes exist because of students’ carelessness when writing. Careless errors may be a result of attention difficulties (http://www.allkindsofminds.org/discover-all-kinds-of-minds). Students may be tired or lose some concentration, so they are unaware of their spelling mistakes.

This paper aimed at exploring spelling errors produced by first year Thai university students and examining why these types of mistakes occur in their writing. Gaining understanding on the causes or reasons why they make mistakes should facilitate the understanding of language teachers and enable them to cope with problems appropriately. The study begins by reporting the types of spelling errors, then discussing causes of the errors, and finally sharing some implications.

The Purpose of the Study and Research Questions

The purpose of this study is to investigate the types of spelling inaccuracy produced by first year Thai university students and to examine the causes of misspellings found in their
written work. In order to find out the answers, two research questions were taken into consideration:

1. What types of spelling errors were produced by first year Thai university students?
2. What caused the spelling errors produced by first year Thai university students?

**Participants**

The subjects in the study were 31 first year Thai students majoring in International Business in China (IBC) at the Faculty of International Studies (FIS) at Prince of Songkla University, Phuket Campus. These students were placed as low proficient students by the use of TOEIC scores. Students who gain lower than 400 TOEIC scores are considered low proficient, and they are required to take more preparatory English courses than those who obtained over the minimum set criteria. The study took place while they were taking Chinese language courses in China. They were required to take a Reading class for an hour every day over a 4 week period for a total of 20 hours as supplementary English classes.

**Research procedures and instruments**

31 first year students were arranged to study Reading as supplementary English activity during summer courses in China. They were required to read Graded readers which referred to short story books containing contents of stories, target vocabulary, exercises on vocabulary, reading comprehension, and grammar summaries with exercises. The books were divided into four levels: starter, one, two, and three. They were divided based on levels of difficulty and on the numbers of headwords: 250, 400, 550, and 700 respectively. The three chosen books in the study were Mulan: Dominoes Starter, Sherlock Holmes: The Blue Diamond: Dominoes One, and The Lord Arthur Saville’s Crimes and Other Stories:
Dominoes Two. All these three books were printed by Oxford publisher. The students were asked to study each book and do exercises before coming to class every day. They were also encouraged to study target words of each lesson, to make up sentences using the target words chosen by themselves, and to submit their assignments before the following lessons. The teacher corrected their sentences and returned their work before the beginning of the following class. In class, the teacher and students spent an hour checking comprehension, meanings of vocabulary, grammatical rules, and exercises. One book was studied for a week. The class practiced in this way for 20 hours or 20 days. Finally, at the end of the course, the students were given one hour to write 45 sentences containing 80 target words taken from the Graded readers provided on the board. The main purpose of this test was to check if they could remember meanings of target words and if their sentence writing was improved, but only spelling mistakes were recorded in the study. Subjects were not aware and not informed they were part of the experiment as it took place in a normal classroom setting.

Findings and Discussions

Data obtained from the students’ sentence writings were recorded to find types of spelling mistakes, and the results of students spelling inaccuracies were analysed in order to find the causes of misspelling problems and were later discussed to explain why they occurred.

1. Types of spelling mistakes found in university students written work

Data revealed ten types of misspelling errors produced by the 31 first year Thai university students. The ten main types of errors are presented in the table below.
Causes leading to misspelling errors

With respect to the data obtained from the students’ inaccuracy of spelling, four main causes leading to misspellings were found.

### 2.1. Differences between the English and the Thai writing systems

It is interesting that most Thai alphabetic consonants can be matched with English phonemes even though their orthographies are different. While Thai is originally Indic, English is Roman. A study on the positive impact of L1 on L2 literacy shows that L1 aids L2 learners with basic knowledge of written letters and their corresponding sounds (Lessow-Hurley, 1990 cited in Roberts, 1994). Results obtained from research conducted by Berkel (2005, p. 97) with Dutch learners learning English as a second language supports this explanation. The findings showed that Dutch learners could learn English spelling very
quickly because they were familiar with the Dutch writing system and they were taught spelling system and spelling strategies. In contrast, a study on spelling errors conducted by Al-Karaki (2005 in Jayousi, 2011) demonstrated problems regarding the differences between Arabic and English. Her subjects were Jordanian students who made mistakes on /p/ and /b/ as the phoneme /p/ does not exist in the Jordanian Arabic language. This is a reason why many students make a mistake by writing /b/ instead of /p/. In this study, based on the results found in first year Thai university students' sentence writing, a few students were confused with the consonant letters <b>, <d>, <r> and <n>. A possible explanation may be that differences between L1 (Thai) and L2 (English) orthographies may cause a problem for some Thai students. This type of mistake can be found in learners having a problem of Dyslexia (Cook, 2004). However, in this case the students could write other sentences and convey meanings appropriately, so these mistakes may not be relevant to the defective health effect.

Another problem that may be related to differences between the two writing systems is that there are no spaces included when writing a sentence in the Thai language. The findings revealed some mistakes when using spaces like in ‘everyweek’ and in compounds, such as ‘super star’ and ‘book store’ that require students to put more effort in memorizing whether two words can be combined as one word or have to be split. Dowling (2012) mentions that it is easy even with well-educated people to make mistakes on compound words because they are uncertain whether to use the hyphen to combine two words or to put two words into one. In Thai, all the words are written with no separation except when writers would like to separate sentences, so students may carelessly put ‘every’ and ‘week’ together as one word or just write them continuously and unconsciously without a space as if they were writing in Thai. Although in the Thai writing system compound words are combined as one word as for many English compound words, the fact that the English language is written with a space
Among words that may be applied to every other type of word. Rules that allow some words to be combined while some words cannot can cause confusion to learners.

Above all, it is possible to conclude that similarities in the two languages can promote learning at a certain level and differences can lead to more difficulties.

2.2 Phonological problems

Many misspelling instances occur as a result of phonological problems. This type of inaccurate spelling is categorized as articulation or interference errors which occur as a result of spellers' use of particular pronunciation (Carney, 1994). Based on this study, four problems that were found are associated with sounds.

First, irregularities or inconsistency of correspondence between letters and sounds is problematic. To illustrate, one sound can be written or pronounced differently such as in mistakes like wather-water, sene-scene, teble-table, tolk-talk, famus-famous, bord-board, and brake-break. Cook (2004) explains that there are more sounds (44 phonemes) than letters (26 letters), so a grapheme can correspond to many phonemes in English. For example, the grapheme <th> that corresponds to phonemes /θ/ in think and /ð/ in ‘the’ and the grapheme <gh> that corresponds to phonemes /f/ in ‘laugh’ and /g/ in ‘ghost’ depending on their initial or final positions in words. Another example is of rules for <c> correspondence given by Venezky (1970, cited in Cook, 2004) about how writing systems can show a relationship between a letter and many different sounds. His 4 rules for <c> include <c> ≡ /ʃ/ in ‘church’, /s/ in ‘cycle’, /k/ in ‘comb’, and /ɔ/ in ‘czar’. On the contrary, a phoneme can correspond to many graphemes. For instance, the phoneme /s/ corresponds to <c> in ‘cell’, <s> in ‘sell’, and
<sc> in ‘scene’, and the phoneme /w/ corresponds to <w> in ‘window’, and <wh> in ‘when’.

Furthermore, the sound of a vowel can be spelled in many ways, such as /eɪ/ in ‘break’ and ‘brake’, /eə/ in; their, hare, bear, bare, err, and there, and /i:/ in; beat, beet, and breeze. To elaborate, <ea> and <a_e> in ‘break’ and ‘brake’ have the same sound as/or represent the vowel /eɪ/, <eir>, <are>, <ear>, <are>, <err> or <ere> in; their, hare, bear, bare, err, and there can be pronounced in the same way as /eə/, and in another example, <ea>, <ee> and <ee_e> in; beat, beet, and breeze are pronounced as /i:/.

Unlike other phonological problems, this type is called lexical errors or malapropism which takes place when learners are confused with similar sounds or words (Carney, 1994). Therefore, students had employed the same consonant or vowel sounds to substitute the correct spelling.

Second, being unable to distinguish similar sounds leading to mispronunciations being quite problematic, such as belive, litter, libraty, romentic, hotpital, and newspaper. Wasowicz (2007) points out that learners who have problems of phoneme distinction spell many vowel sounds with the same letter; for example, ‘litter’ and ‘letter’ sound similar, so it may be possible to explain how students may have problems with sound distinctions, so they may think that both words are the same. Similarly, the correct spelling of believe requires <ie_e> not <i_e>, but their pronunciation is very similar. That is /i:/ for believe and /i/ for live. If students cannot differentiate short and long vowel sounds, they may think that live and -lieve have the same pronunciation and may have the same spelling or orthography. The mistakes of ‘hotpital’ and ‘newpaper’ occurred because most Thai students have problems with the final –s sound which does not exist in the Thai language. The results are similar to a study by Jayousi.
(2011) who found that many Arab learners encounter problems of spelling and pronouncing <p> and <v> since these two letters do not exist in the Arabic language. In Thai, there are nine main final consonant phonemes consisting of /k/, /pl/, /t/, /n/, /\ Dallas, /ml/, /yl/, /\ Chennai/ and /\ w/ (Winskel and Iemwanthong, 2009). This may be a reason why Thai students ignore the importance of final –s syllables like in ‘newspaper’ and use a /t/ ending sound to replace the /ls/ ending sound in ‘hotpital’. Their lack of interest in the sound distinction whether words are pronounced with a long or short vowel makes them unable to distinguish sounds, pronounce words poorly and eventually leading them to write inaccurately.

Third, consonant cluster reduction can cause a problem. Two possible explanations are given for this circumstance. Wasowicz (2007) mentions that students poor phonological awareness is predictable and that most common mistakes students make is to delete letters and syllables, especially unstressed syllables. It may be possible to explain that some words such as ‘government’ and ‘politics’ are written and pronounced with the /rn/ consonant cluster as in government (American English pronunciation) and /ks/ in politics, but students may mispronounce by omitting the /n/ or /s/ and keeping only the /t/ or /k/ sounds; as a result, the students wrote ‘government’ without <n> and ‘politic’ without <s> according to the way they pronounce them. Another explanation is given by Randall (2005, p. 142) who found that phonological differences between L1 and L2 play a role in the error production regarding orthographic knowledge of L2 users, such as vowel distinctions and clusters. Both final clusters /rn/ and /ks/ do not occur in the Thai language, so the students may easily not have been aware and used them incorrectly.
Fourth is the problem of silent sounds found in the mistake of ‘iele’. Chomsky and Halle (1968, cited in Cook, 2004) point out that what is shown in spelling may not be shown in sounds. To illustrate, the word ‘isle’ which is spelled with <s> does not require /s/ in pronunciation. After students memorize how these words are pronounced, the effect of silent sounds may make them unaware of the correct orthography of words.

As mentioned earlier, sounds can cause problems in spelling because the writing does not always represent the sounds as they are pronounced.

2.3 Lack of morphological knowledge

Morphology is the study of the structure and form of words (Shedd, 2008). Morpheme as a part of morphology refers to the smallest meaningful grammatical units of language (Payne, 1997). Errors on inflectional endings are categorized as morphological spelling errors because suffixes -ed, -s, and -ing are meaningful as they give different meanings to words. Nevertheless, it is undeniable that it is impossible to add those inflected words accurately without linguistic or grammatical knowledge. Therefore, it could be said that the reason why students make this kind of mistakes is to be found in not their possessing consolidated knowledge of English grammatical rules which are a part of morphology. Referring to the data obtained, students made mistakes adding wrong inflectional endings of the third singular person, plural nouns, and progressive verbs (verbs + ing). Chomsky (1970 cited in Cook, 2004) emphasizes that it is important to know the language not only on a surface level of sound correspondence but also at an underlining level of lexical representation, so knowledge of grammar is inevitable. Juul (2005) conducted a study with 32 Danish students supporting the fact that there is the strong relevance between the grammatical awareness and inflectional
spelling competence. This confirms that students need to know inflections which are closely related to grammatical knowledge.

Examining the first type of mistake, the instance of adding an additional consonant and vowel in ‘borring’ and ‘having’ may explain why students were confused with –ing rules: words ending in –e and one syllable words. The word “bore” is a verb ending in “e” which needs “e” to be taken away to allow to be attached. However, it is evident that the one syllable rule was applied at the wrong place. Another word, “haveing”, which was misspelled with an unnecessary vowel may be the result of applying the rules inaccurately.

Another type of mistake is relevant to rules of third singular verbs as found in ‘shoutes’ and plural nouns with the –s endings in ‘girles’ and ‘theifs’. In general, –s can be attached to most nouns and verbs. There are some exceptional words such as nouns ending in “f” needing to be changed to –ves. It was unexpected to find that the rule of –es being applied more often than the –s rule, which is in fact utilized more often. Richards (1971) mentions intralingual transfer, which is a type of error directly related to general rule learning of a target language. Intralingual errors are divided into four types: over-generalization, ignorance of rule restrictions which are applied in wrong contexts, incomplete application of rules, and false concept hypothesized. This inaccuracy shows that they over-generalized rules in ‘haveing’ by immediately adding –ing to verbs to form a sentence with a progressive tense and did not fully and accurately apply what they had learned about inflectional endings in plural nouns in ‘girles’ and third singular persons in ‘shoutes’.
Therefore, it is of interest to note that morphological knowledge is obviously significant in spelling.

2.4 Limited knowledge of orthography or spelling

The last types of inaccuracy in spelling are relevant to orthographic errors found in doubling consonants, letter reversals, vowel omissions and consonant omissions.

The first *doubling letter* mistakes are found in; verry, accross, singger, and empperror. It is very common to see consonant letter doubling as it is the most frequently occurring type of English misspelling (Fowley, 1926 cited in Carney, 1994). Carney (1994) states that this problem can cause difficulties to learners of English. In fact, double consonants show that the preceding vowels are either long or short. In English, a geminate consonant or double consonant letters cannot occur within a morpheme such as ‘spell’ (not *sppell*) but it can occur in morpheme boundaries within a word such as ‘misspell’. In the word ‘misspell’, there are two morphemes: *mis* and *spell*. Thus, the double letters in; verry, accross and empperror representing one morpheme in each word cannot occur. It may also be possible to explain that they were confused with one of the rules of double consonants that there are 15 consonants /p, b, t, d, k, g, th, ch, f, s, z, l, r, m, n/ frequently doubled in some contexts. Normally, doubling does not occur in a morpheme and when there is more than one letter in the previous vowel such as in ‘trouble’ which has two letters <tr> before the first vowels <ou>, it does not need "b" to be doubled. In this study, students doubled ‘r’ in ‘verry’ and
‘emperor’ which, according to the rule, cannot be doubled. However, their mistakes did not fit in any of the double consonant rules, so it may be possible to conclude that they could not remember the spelling.

The other types of letter reversals, vowel omission, and consonant omission may be a result of their limited knowledge of spelling. The first type of mistakes found in letter reversals as in languages-languages, restuarant- restaurant, and form-from are categorized by Carney as analogy errors which occur because of “confusion between elements of words” (1994, p. 84). Examining the second type of mistakes found in “by”, problems of homophone may explain why these mistakes exist. Words that have the same sounds but are spelled differently may cause a problem to learners of English. A sentence a student wrote was “They by a horse at the market.”, with <by> used instead of <buy>. This variant error does not cause confusion to readers as sufficient context is provided (Carney, 1994). It is easy to recognize <by> as buy from the other surrounding words. Nonetheless, Wasowicz (2007) explains that the knowledge of spelling does not only consist of orthographic knowledge but also phonological awareness and vocabulary. Knowledge of vocabulary is significant especially when learners have to cope with correct spelling of homophones. This wrong production reflects the phonological problems of words with the same sounds and also a lack of lexical knowledge. The last type of mistake, consonant omission may be explained by their carelessness as in ‘poiso’ and ‘enviroment’; or by their confusion of a double consonant in ‘disapointed’.
In short, these findings apparently support the view that orthographical knowledge is essential in learning spelling, and they also support the fact that spelling skills require a lot of attention and effort in order to make correct spellings.

**Pedagogical Implications**

Some suggestions derived from the findings are provided to improve some teaching methodologies.

To begin with, teachers may first need to be aware of the inconsistence of English. Carney (1994) emphasizes phonological awareness which is essential as it makes spellers aware of underlying phonological rules and of a variety of pronunciations made by different speakers from different areas. Raising this awareness can be accomplished by having students listen to different accents or pronunciations on the radio, in films and movies to make them indirectly recognize differences of pronunciation occurring in real English use. This study has shown that some students have problems with homophones, similar sounds, and sound distinctions. Learning new words in a meaningful context can promote better vocabulary memorization (Nation, 2001), and sufficient time dedicated to reading and writing. Using words in meaningful contexts can support good spelling (Glenn and Hurley, 1993). As a result, teachers may show a word and its use in different contexts to assist students to differentiate spellings of homophones and to better memorize word meanings and spelling. Moreover, as one vowel can be pronounced in various ways, teachers may provide students with examples of vowels that can be spelled differently. Having students learn orthographic regularities could raise students’ awareness of spelling and prevent them from over-generalizing spelling rules.

Second, some grammatical and spelling rules should be emphasized. Chomsky (1970 cited in Cook, 2004) explains that phonological knowledge is not only just a surface level of
correspondence between sounds and letters because letters do not only correspond to particular sounds, but they are also related to lexical forms or spelling which are underlying lexical representation of sounds, such as <ed> which can be pronounced as /d/, /t/ and /id/. This is a reason why learners of English need to know the spelling rules of –s third person present simple tense, -ed past tense, plural nouns, etc, and how they are pronounced. To facilitate students to cope with these grammatical rules, teachers may need to focus on both pronunciation rules and spelling rules. Apart from grammatical rules, some spelling rules, such as the doubling consonant rule should be introduced. Besides the simple rule of one syllable that requires a consonant to be doubled, eg. rob-robber, another easy rule of a short and long vowel can be additionally taught. As the English writing system has checked (short) and free (long) vowels (Cook, 2004), only letters with short vowels are doubled, such as ‘robbery’ /ɒ/ which is checked and ‘robe’ /əʊ/ which is free. Since many students made mistakes adding a double letter, it is essential to have students learn double consonant rules.

Third, most mistakes are related to pronunciation. Emphasizing correct pronunciation should help avoid the mistakes resulting from sound distinction, mispronunciation and silent sounds. By doing this, teachers may promote the use of a dictionary which can foster accurate spelling, allow them to check pronunciation or phonetic symbols, and see examples of how punctuations are correctly utilized.

Fourth, correspondence between letters and sounds can support students with learning spelling. Even though English is inconsistent, providing teaching or knowledge of phonics and some basic rules can assist learners to cope with 85 percent of the way words are spelled (Hanna et al, 1996 cited in Montgomery, 1997). This study shows that most Thai alphabetic sounds can be matched to English letter sounds. Thus, teaching phonics should be introduced at the beginning of learning to promote the phonological route which allows students to link
letters and sounds, enabling them to read the words they see. Teaching phonics makes students know how words are spelled or pronounced.

**Conclusion**

In conclusion, misspelling is found to be one types of mistakes many Thai university students make in their writing. Ten types of spelling inaccuracies were found in this study. The results of the study are similar to other research on the differences between native and target languages in terms of orthography, phonology and morphology. The main causes of spelling mistakes are not a result of differences between the Thai and the English writing systems and students should be more aware of phonological and morphological knowledge in order to make correct spellings. Teaching spellings by focusing on how words are spelled and pronounced seems to best suit most Thai students at all levels in the EFL context.

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