Moroccan University Students’ Use of the English Regular Past and Plural Allomorphic Variations

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Abstract:
The objective of this study was to assess the phonetic use of the allomorphic variations of the past [+ed] and plural [+s] morphemes by a sample of 45 EFL semester one students at Ibn Tofail University, Morocco, using error analysis approach. To collect relevant data, two written tests were designed and distributed to a randomly selected sample to be filled in separately during 40 minutes: the first test consisted of a set of past regular verbs including some adjectives ending in ed, and the second one included a number of English nouns requiring the regular plural [+s]. Further, the participants were given an adapted list of nonce words from Berko’s study (1985). The principle was if they could provide the plural marking of the unfamiliar words correctly, it would be concluded that they knew how to pluralize words in different phonological contexts. The findings of the study demonstrated that the majority of the subjects failed to use the allomorphic variations /t/ and /id/ in different phonetic environments, substituted the latter allomorphs with the allomorph /d/, and erroneously generalized the allomorph /d/ to the adjectives that end in ed. In the second test, a great number of the subjects performed better in pluralizing the nouns that require the voiceless alernant /s/, but found the allomorph /iz/ more complex than the others since it requires a vowel insertion rule to break the cluster of two consonants having similar point of articulation, and overgeneralized the allomorph /-z/ to the nonce words requiring /-iz/.

Keywords: contrastive analysis, error analysis, morpheme, overgeneralization, transfer

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Introduction:
In foreign language teaching classrooms, learners come into contact with a foreign language and experience its linguistic features. Because languages influence each other, learners of English as a foreign language are exposed to cross-linguistic differences between their mother tongue and English and thus may make different types of errors. Lado (1957), in this respect, emphasizes on learners’ transfer from their native language to the foreign language in that “individuals tend to transfer the forms and meanings, and the distribution of forms and meanings of their native language and culture to the foreign language and culture” (p. 2). In other words, learners transfer the knowledge from L1 (first language) acquisition into the target language which may result in producing ill-formed sentences in the target language if the two languages are characterized by linguistic differences. Indeed, transfer from L1 into L2 (second language) or foreign language has received much interest in applied linguistics since identifying learners’ errors gives deep insights into how learners learn a second or a foreign language.

English as a foreign language (EFL) learners often make a number of errors which often range between phonological or phonetic, morphological, and syntactic ones. Since EFL learners are non-native speakers of English, it is widely observed that they make different sorts of errors in their first stages of learning English. For instance, non-native speakers of English are commonly reported to generalize the regular plural [+s] to other regular or irregular plural forms. In this respect, Akande (2005), conducting a study on senior secondary school pupils in Nigeria, argued that the subjects could not distinguish between the allomorphs /s/ and /z/. That students cannot make a distinction between the allomorphs /s/, /z/, and /iz/ may be explained by their low competence in English morphology. In addition to the findings by Akande, students’ confusion between the three allomorphs may be due to their lack of exposure to these allomorphic variations.

Therefore, the present study assesses the regular past and plural morphemes’ usage by first year students at Ibn Tofail University, Morocco. Particularly, it evaluates their performance in the past allomorphic realizations /d/, /t/, and /id/ as well as regular plural alternants /s/, /z/, and /iz/ in different phonological contexts.

Literature Review
A great body of literature in applied linguistics has extensively shown that certain language structures of learners’ mother tongue are transferred into their learning of a foreign or second language. Numerous studies have concluded that non-native speakers of English failed to correctly use some aspects in a foreign or second language due to the transfer of phonological, morphological, or syntactic rules of their mother tongue (L1). For instance, in his study of Saudi BA students at King Khalid University, Al-Badawi (2012) concluded that a great number of students made phonetic, morphological, and syntactic errors. For example, 60% of the sample substituted the voiced bilabial sound /b/ for the voiceless bilabial /p/. It was observed that this phonetic error is due to the absence of the sound /p/ in Arabic language system. Odisho (2005) also argued that native Arabic speakers misarticulated certain English vowels especially vowels which have no close counterpart in Arabic. Similarly, some speakers of Arabic who tend to learn English may make syntactic errors as in (John he went to school yesterday*) in which they erroneously include two pronouns (John and he) as the subject of the sentence, which is an error transferred from Arabic.

Such errors are attributed to the influence of learners’ L1, which is a fundamental view of the contrastive analysis hypothesis in its explanation of learners’ errors.
Contrastive analysis, as one of its basic tenets, refers learners’ errors to their L1 interference. It is true that contrastive analysis can help account for a considerable number of errors but not all errors are associated with L1 interference since learners produce certain errors that cannot be explained by the comparison between L1 and L2. In this respect, error analysis proposes an alternative examination of errors to predict learning difficulties. A key principle of error analysis, as expressed by its advocates, is that errors are not only due to the interference of L1 (negative transfer), which is the basic claim of the contrastive analysis. Learners, on the other hand, create their own specific rules or construct a systematic language out of L1 and L2 to facilitate the process of learning. This is referred to as ‘interlanguage’ by Selinker & others (1992; as cited in Ennaji & Sadiqi, 1994:150). Therefore, error analysis describes learners’ errors with more focus on the target language.

It is not always clear that an error is due to the transfer from the learners’ native language to the target language. Overgeneralization errors are an example of errors which are attributed to the target language itself. In other words, errors resulting from overgeneralization are created by L2 learners to simplify the process of learning since they still have incomplete competence in L2. In short, overgeneralization occurs because the learner generalizes a particular rule once he starts learning parts of the new system. As an example, generalizing the phonetic realization of the English regular past morpheme [+ed] is a common error committed by Arabic-speaking learners of English. That is, morphological errors may be displayed in overgeneralizing rules of combining stems/roots and affixes. Learners may apply an inflectional marker to a root/stem of a different inflectional class. An error explaining the wrong overgeneralization of an inflectional marker would be a past-tense form such as *spended where the past inflectional morpheme is wrongly used with a verb that requires an irregular past-tense form (i.e. spent). Such error is referred to as overgeneralization since the regular inflectional past morpheme is overextended to roots that require an internal change.

Another example of overgeneralization error is found in the realization of the English plural marker: a morpho-phonological error. Jing, L. Tindall, E. & Nisbet, D. (2006) investigated the difficulties that the Chinese students may face while using various plural forms in English. Their study showed that the omission of the plural morpheme was a major error made by the participants. It was also concluded that the participants erroneously overgeneralized morphological rules of the plural morpheme. Furthermore, in a study conducted by Al-Badawi (2012) on a sample of 20 Saudi BA students at King Khalid University, he noticed that large percentages of the sample (62.5% of the sample) failed to use the plural (-s/es) in certain noun phrases.

**Statement of the problem and study objectives**

First year students of English as a foreign language at Ibn Tofail University made some phonetic errors when they were observed using the regular past and plural marker allomorphs in different phonetic contexts. Therefore, the objective of this paper was to assess the realization of the [-ed] past morpheme and the regular plural [-s] by a randomly selected group of semester one students, at Ibn Tofail University, whose major is English. In particular, it aimed at identifying semester one students’ phonetic awareness of using the allomorphic variations /d/, /t/, and /id/ of the morpheme [-ed], and /s/, /t/, and /id/ of the plural morpheme in turn.
Research questions and Hypotheses
To identify the phonetic errors committed by the selected sample, this study targeted the following questions:

1) Are students aware of the phonetic realizations of the regular past and plural morphemes?
2) Do students erroneously overgeneralize the phonetic rules of the regular past and plural morphemes to other forms?
3) Is there any difficulty order in using the allomorphic variations /d/, /t/, and /id/ of the past morpheme and /s/, /z/, and /iz/ of the plural morpheme?

The following are the hypotheses set to answer the previous research questions:

1) Learners commit phonetic errors because they are unaware of the phonetic realizations of the targeted morphemes.
2) A great number of the participants wrongly overgeneralize the rules of the regular past and plural morphemes.
3) The participants may face more difficulty in using the allmorphs /id/ and /iz/ since they require a vowel insertion.

Study sample
From approximately 200 students, this study examined a randomly selected sample of 45 first year university students (semester 1, group 1B) whose major is English at Ibn Tofail University, Morocco. The participants’ native language is Moroccan Arabic and English is regarded as a foreign language for them. They were 18 male and 27 female and their age ranged from 19 to 22. All of the participants took the test for regular past morpheme, while in the regular plural morpheme test 5 participants could not manage to attend for their personal reasons.

Data Collection and Analysis
To collect the relevant nominal data, the randomly selected sample was given two separated written tests lasting approximately 20 minutes each. The first test included a set of English past regular verbs which ranged between the ones whose pronunciation is /d/, /t/, and /id/. The participants, then, were required to write the correct pronunciation of [-ed] past morpheme either as /d/, /t/, or /id/ for the selected past regular verbs. To know whether the participants would overgeneralize the phonetic rule of pronouncing [-ed] correctly in different phonetic contexts, the data also included some adjectives which end in [ed]. As for the second test, it also lasted 20 minutes during which the subjects filled in a written test that included a set of regular plural nouns. The subjects were supposed to provide the correct allomorphic realizations of the plural [-s] in different phonetic environments. Their responses were analyzed for occurrences of phonological errors. Thus, we made use of the qualitative method to measure their performance.

There is high possibility that the participants may articulate the plural morpheme correctly, yet they may not be aware of the plural marking rules. For this reason, the participants were given an adapted list of nonce words from Berko’s study (1985). The principle was that if they could pronounce the plural marking of the unfamiliar words correctly, this would indicate that they knew how to pluralize words in different phonological contexts.

Results and Discussions
The participants’ results were analyzed using frequency and percentage measures. First, the findings of the English past regular morpheme are presented in Tables 1, 2, and 3, which show different realizations of [-ed] past morpheme: as /t/ in Table 1, /id/ in Table 2, and /d/ in Table 3;
whereas Table 4 presents some adjectives ending in \textit{ed}. Subsequently, the samples’ results as regards the regular plural morpheme are described in tables 5 and 6. The tables, in particular, show the sample’s correct and incorrect use of this morpheme.

1. \textit{Data description and analysis for the past regular morpheme}

   This section is mainly about the findings concerning the English regular past morpheme. The results show that the participants were unaware of the phonetic realizations of the [+ed] regular past morpheme in that they failed to provide the correct pronunciation of this morpheme in different phonetic contexts. For example, as demonstrated in Table 1, a great number of the participants provided the incorrect articulation of this morpheme for the verbs \textit{announced} (95%), \textit{watched} (82%), \textit{distressed} (82%), \textit{thanked} (75%), \textit{relaxed} (75%), and \textit{missed} (57%). This indicates that the majority of the participants displayed lack of awareness of the allomorphic variation which is phonologically conditioned: it is realized as voiceless /t/ when preceded by a voiceless sound as in the latter verb examples.

   \begin{table}[h]
   \centering
   \begin{tabular}{|c|c|c|}
   \hline
   \textit{Regular verbs} & \textit{Frequency of errors} & \textit{Percentage of errors} \\
   \hline
   \textit{Correct use} & \textit{Errors} & \\
   \hline
   Kissed & 23 & 22 & 48\% \\
   Liked & 29 & 16 & 35\% \\
   Missed & 19 & 26 & 57\% \\
   Watched & 8 & 37 & 82\% \\
   Laughed & 21 & 24 & 53\% \\
   Hoped & 20 & 25 & 55\% \\
   Finished & 22 & 23 & 51\% \\
   Stopped & 25 & 20 & 44\% \\
   Thanked & 11 & 34 & 75\% \\
   Shocked & 26 & 19 & 42\% \\
   Relaxed & 11 & 34 & 75\% \\
   Distressed & 8 & 37 & 82\% \\
   Announced & 2 & 43 & 95\% \\
   \hline
   \end{tabular}
   \caption{The participants’ responses as to the past [-ed] morpheme realized as /t/ allomorph}
   \end{table}

   Similarly, the results in Table 2 show that the participants were not familiar with the vowel insertion rule to break a cluster of two consonants having similar point of articulation as in \textit{aggravated}, \textit{needed}, and \textit{started} in which the sounds \textit{t}, and \textit{d} are alveolars and, hence, English opts for the insertion of the vowel \textit{i} (or sometimes schwa) to break this consonantal cluster.
is the reason why many students made errors in started (84%), wanted (66%), and aggravated (64%), for instance.

### Table 2. The participants’ responses as to the past [-ed] morpheme realized as /id/ allomorph 

| Regular verbs | Frequency of errors | Percentage of errors |
|---------------|---------------------|----------------------|
|               | Correct use         | Errors               |
| Wanted        | 15                  | 30                    | 66%               |
| Needed        | 23                  | 22                    | 48%               |
| Succeeded     | 22                  | 23                    | 51%               |
| Handed        | 21                  | 24                    | 53%               |
| Started       | 7                   | 38                    | 84%               |
| Aggravated    | 16                  | 29                    | 64%               |

In Table 3, however, the participants made fewer errors in the verbs which require the voiced allomorph /d/ in comparison with the other allomorphs /t/ and /id/: only 17% and 26% who made errors in the past phonetic realization of the verbs snow and love, respectively.

Importantly, the results further demonstrated that, unlike in the allomorph /d/, the participants faced more difficulty in the allomorphs /t/ and /id/. This may be explained by the fact that there are more phonetic contexts where [+ed] is realized as voiced. Also, in the early stages of learning the phonetic realization of the regular past morpheme, learners tend to generalize the allomorph /d/ to other allomorphic variations, but later on they start correcting their mistakes.

### Table 3. The participants’ responses as to the past [-ed] morpheme realized as /d/ allomorph 

| Regular verbs | Frequency of errors | Percentage of errors |
|---------------|---------------------|----------------------|
|               | Correct use         | Errors               |
| Played        | 23                  | 22                    | 48%               |
| Snowed        | 37                  | 8                     | 17%               |
| Loved         | 33                  | 12                    | 26%               |
| Listened      | 22                  | 23                    | 51%               |
| Confused      | 15                  | 30                    | 66%               |

The participants were, further, provided a list of adjectives ending in ed (as Table 4 illustrates) and were asked to come up the correct articulation of the ed ending. Their responses confirmed our hypothesis about overgeneralization. To explain, the majority of the sample
applied the rule of the allomorph /d/ to the adjectives *wicked* (86%) and *naked* (77). They possibly thought they are verbs.

**Table 4. The participants’ responses as to the articulation of adjectives ending in -ed**

| Adjectives ending in [-ed] | Frequency of errors | Percentage of errors |
|---------------------------|---------------------|----------------------|
| Correct use | Errors |
| Aged | 27 | 18 | 40% |
| Wicked | 6 | 39 | 86% |
| Naked | 10 | 35 | 77% |
| Skilled | 35 | 10 | 22% |

2. **Data analysis and discussion for the plural marker**

In this section, the participants’ responses with regard to the regular plural morpheme are described and discussed. Table 5 shows that the subjects performed better in pluralizing the nouns that require the voiceless alternant /s/ (only 14% of them provided the wrong alternant) than the plural words requiring the allomorphs /iz/ and /z/. The findings also revealed that the majority of the participants (68%) failed to provide the correct allomorph /iz/ in its appropriate phonological context. There are two possible reasons to account for this difference in the subjects’ performance of the three allomorphs. First, the /iz/ alternant is more complex since it requires an extra rule: the insertion of the vowel [i] to break the cluster of two consonants having similar point of articulation. Second, the allomorph /iz/ is the least frequent one in the English regular plural nouns in comparison with the other allomorphs. Therefore, the subjects’ errors in the allomorph /iz/ are due to their less exposure to this allomorph. In contrast, the subjects displayed few errors in the allomorphs /z/ and /s/ because these allomorphs are more frequent in English plural nouns, and the participants were possibly more exposed to them.

Further, the participants exhibited overgeneralization of the allomorph /iz/ to other phonetic contexts where the allomorphs /s/ and /z/ are required. For example, a number of students failed to provide the correct plural morpheme in the words *mosques* and *machines*; they were confused between the articulation of the ending [es] in such words and the ones in words like *roses* and *buses*, and thus they thought the ending [es] is always realized as /iz/ in all word forms.

**Table 5. The participants’ responses as to the regular plural morpheme realized as /iz/, /z/, and /s/ allomorphs**

| Alternants | /iz/ | /z/ | /s/ |
|------------|------|-----|-----|
| Frequency of Errors | 286 | 139 | 75 | 304 | 58 | 221 |
The participants were further given an adapted list of nonce words from Berko’s study (1985), which is known as ‘wug’ experiment. The principle was that if the participants could pronounce the plural marking of the unfamiliar words correctly, this would indicate that they knew how to pluralize words in different phonological contexts.

As represented in table 6, the subjects found more difficulty in the nonce words requiring /-iz/ allomorph than the ones requiring /-z/ or /-s/. This result supports the findings in Table 5, in which the majority of the participants encountered more difficulty in the allomorph /-z/. This finding also confirms what Berko (1958) concluded in her study of the plural allomorphs /s/, /z/, and /iz/ in which the subjects found the allomorph /iz/ more complex than the others.

Interestingly, a great number of the participants incorrectly articulated the nonce words tor and cra with the allomorph /-s/. This wrong articulation might be due to the subjects’ influence by the point of articulation of the initial voiceless sounds t and k in the words tor and cra respectively. That is, in the articulation of the two voiceless, bilabial, stops (t, k), the tongue already anticipates a voiceless allomorph at the final position of the word. It is also significantly noticed that the majority of the participants overgeneralized the allomorph /-s/ to the nonce words requiring /-iz/. As previously explained, because the alternant /-z/ requires an extra-rule, namely the epenthesis (vowel insertion) rule, the participants found it more difficult, which confirms our hypothesis.

**Table 6. The participants’ responses to the articulation of nonce words adapted from Berko’s study**

Both allomorphs were considered to be correct.

| Nonce Words | Expected plural allomorphs | Correct pronunciation % | Incorrect Pronunciation % | deviant forms | Other deviant forms % |
|-------------|---------------------------|-------------------------|--------------------------|--------------|-----------------------|
|             |                           |                         |                          | As /s/ | As /iz/ | /z/ |                         |
| Niz         | /iz/                      | 3                       | 97                       | 6         | 80       | 11   |                         |
| Tass        | /iz/                      | 6                       | 94                       | 6         | 76       | 12   |                         |
| Kuzh        | /iz/                      | 10                      | 90                       | 0         | 73       | 17   |                         |
| Gutch       | /iz/                      | 40                      | 60                       | 0         | 53       | 7    |                         |
| Wag         | /-z/                      | 53                      | 47                       | 30         | 6        | 11   |                         |
| Tor         | /-z/                      | 63                      | 37                       | 23         | 10       | 4    |                         |
| Cra         | /-z/                      | 30                      | 70                       | 63         | 3        | 4    |                         |
| Heaf        | /-s/ or /z/*              | 78                      | 22                       | 20         | 2        |     |                         |
| Lun         | /-z/                      | 73                      | 27                       | 16         | 3        | 8    |                         |

**Conclusion and Pedagogical Implications**

The present study explored semester one students’ performance in the use of the regular past morpheme allomorphs as well as the plural marking ones. It has been concluded that
semester one students at Ibn Tofail University committed errors in the targeted allomorphic variations. The participants faced more difficulty in the phonetic realizations /t/ and /d/ and, and they erroneously substituted them with the allomorph /d/. Such substitution can be attributed to the students’ unawareness of the allomorphic variations of the regular past morpheme.

It has been also concluded that the majority of the subjects found /iz/ as the most difficult allomorph since it requires a vowel insertion. This common allomorphic error is due to the fact that the subjects have not been exposed to the three different allomorphic variations especially to the /iz/ allomorph. The findings of the study also demonstrated that some students wrongly generalized the articulation of the ending (es) as /iz/ to all words having (es) in the final position. This finding confirms previous findings as regards the morphological errors. For example, in his study on Nigerian secondary school pupils, Akande (2005) argued that a great number of the pupils had a low level in morphology in that they made errors of overgeneralization, inconsistency, and the interference of their mother tongue in English.

The results of this study may be very useful for textbook designers and teachers. Including the allomorphic variations of the past regular morpheme and the plural one in textbooks may make students conscious of the different phonetic realizations of the past and plural regular morphemes. Teachers may also provide students with a set of regular past and plural words that require different phonetic articulations and call their attention to their correct pronunciation in various phonetic environments. Students, then, learn how to correctly articulate the allomorphs in different phonetic contexts.

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Smirkou Ahmed holds an MA in TEFL from Ibn Tofail University, Morocco. Currently, Smirkou Ahmed is about to defend my dissertation on Morphology. At the same time, Smirkou Ahmed has been teaching at Ibn Tofail University as an assistant teacher and at ENA (Ecole Nationale d’Architecture) in Rabat. Smirkou Ahmed research interests include applied linguistics and morphology.

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