

“Errors in spelling of Polish and English vowel phonemes made by 3rd grade students of selected junior high schools in Trójmiasto”

Summary

The dissertation approaches a question of how Polish students' pronunciation causes spelling errors in vowel graphemes of the Polish and English languages. The research was conducted among last grade students of junior high schools in Trójmiasto, north of Poland.

The study comprises the theoretical part, the methodological segment, the research results, and the application of the research. Not only does the theoretical part draw guidelines to basic terminology but it also sheds light on the characteristics of the Polish and English vocal systems and the flavour of the phoneme-grapheme correspondences of the languages.

Regarding the research, there were four parts: a sample writing in Polish (an argument), a sample writing in English (an informal letter), a dictation in Polish, and a dictation in English. The sample writings were of different topics so as not to bias students' lexical choices. The dictations were devised by the author himself; they comprised exemplary sentences and key words, of which only the latter ones were supposed to be written down. In order to minimise mishearing of the words, each key word in the recording was first uttered in isolation, then within an exemplary sentence, which was to provide contextual cue for the students, and finally the isolated word was repeated again.

As to the English dictation, the given material was controlled with regard to the level of lexis, as well as the scope of phonemes and phoneme-grapheme correspondences. The lexis was set at A2 /B1 level within the CEFR scale as this was the assumed level of English of the average junior high school graduate. The assessment attempted to measure students' performance in spelling of the following phonemes: /i:/ (as in *seat*), /ɪ/ (as in *sit*), /ɛ/ (as in *pet*), /ʊ/ (as in *put*), /ʌ/ (as in *cup*), /ɒ/ (as in *pot*), /æ/ (as in *cat*), /ə/ (as in *teacher*), /ɜ:/ (as in *bird*), /u:/ (as in *blue*), /ɔ:/ (as in *door*), /ɑ:/ (as in *car*), /eɪ/ (as in *May*), /aɪ/ (as in *my*), /ɔɪ/ (as in *boy*), /əʊ/ (as in *go*), /aʊ/ (as in *cow*), /ɪə/ (as in *here*), /eə/ (as in *chair*), /tʊə/ (as in *tour*). Each of the examined spellings was checked both with regard to the main and one of the secondary phoneme-grapheme correspondences.

The Polish part of the dictation was controlled with regard to the choice of lexis and the selection of assumed spelling problems. Lexical prevalence of the chosen vocabulary was ensured by use of language corpora; the spelling difficulties, on the other hand, were culled from various papers on

the subject matter. The study scrutinised errors made in spelling of the following phonemes: /i/ (as in *bić* Eng. 'hit'), /i/ (as in *być* Eng. 'to be'), /ɛ/ (as in *ser* Eng. 'cheese'), /a/ (as in *bar* Eng. 'a pub'), /ɔ/ (as in *kot* Eng. 'a cat'), /u/ (as in *but* Eng. 'a shoe'), /ɛ̃/ (as in *gęś* Eng. 'a goose'), and /ɔ̃/ (as in *wąs* Eng. 'a moustache').

Analyses of the collected material showed that the difficulty in spelling of Polish vowels lies in the lack of transparency of some grapheme-phoneme correspondences, which hardly comes as a surprise. Of the gathered material, substituting the *ę* grapheme with *e* in the *ę* - /ɛ̃/ word-final position (such as *Ja chcę* Eng. 'I want') was a common pattern. Interestingly, the magnitude of the phenomenon was not matched in terms of general spelling skills performed by the participants. The prevalence of the error is twofold as the lack of phonetic transparency in the *ę* - /ɛ̃/ correspondence is reinforced by unawareness of the proper grammar rule. Mainly, the *ę* grapheme is used as a marker of first person singular ending in verbs (*chcę* Eng. 'I want') and the accusative case in nouns (*książkę* Eng. 'a book'), which the participants failed to recognise.

The most notorious among errors of orthographic representation (the ones where a given phoneme has more than one plausible correspondence) were reported in spellings of the /u/ phoneme, which is represented in texts by either the *u* or *ó* grapheme. Correct use of the latter turned out to be more of a problem. Interestingly, the problem solely occurred among the less skilful students. Misuse of the *u* grapheme was less common, yet distributed more evenly among the participants.

Another error reported among the weaker students related to confusing the *om* and *q* graphemes in their word-final position (e.g. *kolegom*, *kolegq* Eng. 'a friend'). The former ending marks the dative case of singular nouns, and the latter the ablative case of singular nouns. There had been evidence for misuse of the *q* ending in the literature on the subject, but the *q* – *om* merger was somewhat unexpected among future graduates of junior high schools.

The /ɛ̃/ – *ę* and /ɔ̃/ – *q* correspondences can be seen as a one-to-one relationship provided that one recognises phonemic value of the diphthongs. Therefore, the fact that no errors were reported in the spelling of words such as *węszy* or *wąsy* (Eng. 'it sniffs', 'a moustache') might indicate that the /ɛ̃/ and /ɔ̃/ sounds as well as their text representations fit well within students' phoneme awareness. As long as one defines the phoneme as a mental representation of a speech sound, it is.

71% of the reported errors were of morphological nature (i.e. they were related to illegal choice of flexion endings). The magnitude of the phenomenon indicates that students cannot apply many of the rules governing the Polish language. Errors of orthographic representation (phonetically correct) made up to 26% of the reported spelling inaccuracies. Phonological errors (phonetically incorrect), on the contrary, were a rarity; they occurred at the rate of merely 1%.

As to the English part of the study, most reported errors were of phonetic nature. The spelling represented mainly non-neighbouring vowel sounds (43% of the reported errors) or, less

commonly, a neighbouring vowel sounds (18%). Orthographic errors occurred at the rate of 28%; the rest were exceptions or errors of unspecified type.

Arguably, there was a three-way interaction of the number of the reported spelling mistakes as well as the proportions between orthographic and phonetic errors. The more skilful the speller was, the more orthographic and less phonetic was the nature of the reported errors. One could draw a conclusion that general improvement in language skills is accompanied with better recognition of spelling patterns of English. Nevertheless, even among good spellers the recognition was still far from perfect.

Among the most notoriously misspelled words to the Polish part of the study were *tezę* (Pl. the accusative form of 'a thesis'), *nadzieję* (Pl. the accusative form of 'hope'), *żonę* (Pl. the accusative form of 'a wife'), and *się* (Pl. reflexive pronoun). In the miscellaneous pool one can notice that the spelling problem goes beyond the words themselves, it's the grammar that the students were struggling to apply in those words. Accordingly, the English part of the test yielded quite different results as it was possible to single out three words: *beautiful*, *because*, and *friend* that were responsible for 61 errors out of 365 in total. Those words can be characterised by both highly irregular phoneme-grapheme correspondences and high text frequencies.

The author of the dissertation performed statistical analyses to investigate interaction between the number of committed spelling errors and the text frequencies of the vowel phonemes. The variables showed strong correlation with one another and proved to be significant. This, however, should be taken with a pinch of salt as it was possible to correlate only 19 elements (the constraint of the method is the number of vowels in the given phoneme inventory). There seems to be a parallel tendency in the Polish language; however, it is impossible to be certain as there are only eight (at best) vowels to be correlated. The current state of knowledge in English linguistics allowed to take one step further and address the issue of correlation between the number of reported errors and the frequencies of each phoneme-grapheme correspondences, and reverse grapheme-phoneme relationship. None of them proved to exist as the magnitude of the effect was flat across condition.

The author also sought to determine which vowel phonemes of English were most often misrepresented in the text. Unlike in the Polish language, it's hard to identify the predominant spelling difficulty; the errors were more evenly distributed among vowel phoneme representations. The /ɪ/ and /i:/ phonemes are particularly interesting as not only were they notoriously misspelled (97 out of 495 errors), but their occurrence is intertwined. The main /ɪ/ - *i* correspondence was frequently substituted by the *y* grapheme, whereas the *i* grapheme was mistakenly recognised as a text representation of the /i:/ phoneme.

The participants showed also little awareness of rime-level correspondences. This was particularly evident in the collected misspellings of the /ɒ/ phoneme. A number of times the parti-

participants failed to grasp the contextual effect of the *w* letter in words such as *was* or *want* (10 such cases). The main source of the spelling errors was, however, the word *because* with its irregular /b/ - *au* correspondence, which accounted for 25 errors.

Another source of error that should be mentioned is the influence the phoneme-grapheme relationships of the Polish language have on English phoneme-grapheme relationships. 65 out of 495 errors were ascribed to this group. Moreover, the study easily assumes that the effect is larger, however, impossible to estimate as the interference of both systems can also have a positive effect on spelling of English words.

Finally, the findings derived directly from the research let the author present a set of lesson plans that could mitigate the problem Polish students have with spelling of English vowel sounds. The ideas aim to reinforce students visual memory, via use of tools such as mnemonics, as well as to strengthen awareness of selected phoneme-grapheme correspondences via the phonic approach to teaching. Not only does the author want to make students better spellers but also to provide them with visual cues on how to retrieve the words pronunciation from the text. As to the Polish part of the research, the literature on the subject is abundant and the author could provide the reader only with references and general concepts on how to effectively teach spelling within the delimited areas.

Keywords: phoneme-grapheme correspondences, grapheme-phoneme correspondences, spelling errors, Polish pronunciation, English pronunciation, Polish spelling system, English spelling system.