

Lexical transfer in the written English of Finnish students in 1990, 2000 and 2005 – Elements of improvement in the mastery of English vocabulary

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This paper explores instances of lexical transfer in the written English of Finnish ESL learners and studies changes that have taken place in the quantity and quality of lexical L1 influence between 1990 and 2005. Instances of L1 lexical transfer in samples of students' compositions from 1990, 2000 and 2005 are compared in order to discover if they reflect improvements in their English competence. The results show that transfer phenomena that affect word meanings and word use in English have decreased, while transfer that influences word forms has increased. This indicates that Finnish students' knowledge of word semantics and word use, i.e. collocational and grammatical restrictions, has improved, but their knowledge of the formal properties of English words, e.g. correct spelling, has deteriorated. The influence of language teaching and informal learning on Finnish students' vocabulary skills in English are discussed.

Keywords: language transfer, Finnish learners of English, the acquisition of L2 vocabulary

1 Background and aims of the study

The past three decades have witnessed a positive change in the English competence of Finnish students. For instance, Takala (1998, 2004) reports a steady improvement starting from the 1970s, which has been especially noticeable in the students' reading and listening comprehension skills. Most of the credit has to be given to the reforms made in the Finnish education system and in language education. Since the 1970s, language teaching methods and learning materials have developed and emphasis has shifted from translation and written exercises to communicativeness and oral skills. In addition to the changes that have previously been investigated and documented, there is a common belief shared by many English teachers in the country that the positive development in Finnish students' English skills has accelerated since the 1990s. Among the speculated reasons for this change are the students' increased contacts with the English language in today's globalized world, brought about, e.g., by the Internet and an increased use of English in the media. These have undoubtedly enhanced the students' opportunities to acquire English skills outside the classroom as well.

The present study sets out to investigate this alleged improvement in Finnish students' English competence since the 1990s by examining instances of mother tongue influence in their written English production. Studies have indicated that learners who have a more solid command of the target language (TL) less often have the need to resort to their mother tongue when using the foreign lan-

guage, whereas learners who have gaps in their L2 competence more often transfer elements from their L1 into the foreign language (see e.g. Odlin 1989). Hence, the amount of L1 influence in the learners' TL usage can be regarded as one indicator of their TL competence¹.

Through a comparison of patterns of L1 influence occurring in the students' compositions from 1990, 2000 and 2005, this study seeks to clarify whether the students' English competence has improved, and if so, what kinds of changes have taken place. This paper presents the preliminary findings of an ongoing research; I will focus on presenting instances of lexical transfer found in the study and on discussing how they reflect an improvement in the students' mastery of their English vocabulary.

2 Material and methods

The material for this research consists of 500 English compositions written by Finnish Upper Secondary School students as a part of their Matriculation Examination² from 1990, 2000 and 2005. The length of the compositions has been limited to 150 to 200 words, which

¹ The relationship between learners' TL competence and transfer is not a straightforward one, but studies have indicated that learners of an advanced level are less likely to be influenced by their L1, especially when it comes to negative transfer, i.e., transfer that results in errors in the learners' TL production (see e.g. Odlin 1989 for a discussion of this issue).

² The Matriculation Examination is the final examination the students have to pass in order to graduate from Finnish Upper Secondary School. The setting and the evaluation of the exam is conducted by a national board for the Matriculation Examination, which also preserves a few per cent of each year's exams in their archives for research use. Hence, the Matriculation Examination compositions offer reliable and standardised research material.

makes the size of the corpus 96,787 words. The corpus contains 173 compositions from the year 1990, 147 from 2000 and 180 from 2005³. The samples were compiled into an electronic corpus and tagged according to the categories of L1 transfer under investigation.

The identification of lexical transfer relies on the work by Nation (2001) on second language learners' lexical knowledge. In his work, Nation defines what L2 learners' lexical knowledge entails by offering an extensive account of what is involved in "knowing a word". Nation (2001) divides this knowledge into three aspects: the knowledge of word form, the knowledge of word meaning and the knowledge of word use. The knowledge of word form involves knowing the correct spoken and written forms of the word and the various parts the word consists of. The knowledge of word meaning, on the other hand, consists of being able to connect the word form with a correct meaning, knowing the concept behind the word and what it refers to, and being aware of the various associations of the word. Finally, the knowledge of word use entails knowing the grammatical functions of a word, its collocations and constraints on its use. Table 1 lists these three aspects of word knowledge.

³ The samples are of differing sizes because the material in the archives of the Matriculation Examination Board has been randomly selected and consequently it did not contain a sufficient number of compositions from each year. For this study, these limitations have been overcome by choosing an appropriate statistical method.

TABLE 1. Aspects of L2 learners' lexical knowledge (adapted from Nation 2001).

Knowledge of word form	Spoken form Written form Word parts
Knowledge of word meaning	Form and meaning Concept and referents Associations
Knowledge of word use	Grammatical functions Collocations Constraints on use (register, frequency...)

The classification for lexical transfer relies both on the work by Nation and on my previous research (Meriläinen 2006), which was partially based on the same data as this study. This classification is primarily data-driven, but some categories have been adopted from previous work on lexical transfer by other scholars (e.g. Ringbom 1987). The categories of lexical transfer adopted from Meriläinen (2006) will be grouped under the three aspects of L2 learners' lexical knowledge described in Nation (2001): word form, word meaning and word use. In the present study, **word form** will comprise transfer categories that relate to the students' incomplete knowledge of English word forms, **word meaning** will include categories that are concerned with the transfer of L1 semantics and, finally, **word use** will entail transfer phenomena that affect the students' usage of English words, including aspects such as word functions and appropriate word combinations. Table 2 lists the pertinent transfer categories under these three aspects of word knowledge. The

individual transfer categories are discussed and exemplified in chapter 3.

TABLE 2. Classification of lexical transfer.

Word form	<ol style="list-style-type: none">1. Substitutions2. Relexifications3. Orthographic transfer4. Phonetic transfer5. Morphological transfer
Word meaning	<ol style="list-style-type: none">6. Loan translations7. Semantic extensions
Word use	<ol style="list-style-type: none">8. Collocations9. Functional transfer

The instances of lexical transfer observed in the corpus were placed into these categories, after which the data was analysed qualitatively and quantitatively. The qualitative analysis focuses on describing the different types of transfer phenomena and explaining their possible causes through Finnish-English comparisons. The quantitative analysis aims at clarifying whether the numbers of the transfer instances, both in the individual categories and within the broader groups of word form, meaning and use, reveal any differences in the samples from 1990, 2000 and 2005. This data will be statistically examined by using analysis of variance (AOV) and the Kruskal-Wallis (K-W) test.

3 Results

Altogether, 703 instances of lexical transfer were observed in the corpus. Table 3 shows the numbers of instances of lexical transfer in the samples from 1990, 2000 and 2005, and their frequencies per 10,000 words.

TABLE 3. The frequencies of lexical transfer in 1990, 2000 and 2005.

		1990		2000		2005	
		N	/10,000	N	/10,000	N	/10,000
Word form	1. Substitution	3	0.9	6	2.12	3	0.85
	2. Relexification	7	2.11	4	1.41	1	0.28
	3. Orthographic transfer	41	12.34	51	17.99	58	16.47
	4. Phonetic transfer	6	1.81	13	4.59	33	9.37
	5. Morphological transfer	11	3.31	11	3.88	10	2.84
Word meaning	6. Loan translations	31	9.33	26	9.17	23	6.53
	7. Semantic extensions	68	20.46	28	9.88	42	11.93
Word use	8. Collocations	24	7.22	11	3.88	7	1.99
	9. Functional transfer	78	23.47	49	17.28	58	16.47
		269		199		235	

Sections 3.1–3.3 and their various subsections will discuss the results found for each of the transfer categories and also present some examples from the corpus and discuss the changes that have taken place in each category during the period under investigation. Section 3.4 will discuss the patterns observed within the three broader groups of word form, word meaning and word use.

3.1 Word form

3.1.1 Substitutions

Substitutions, as the name implies, involve the substitution of an English word with a Finnish one. This type of L1 influence is very rare in Finnish students' written English production for the obvious reason that the similarities between Finnish and English word forms are very rare (Ringbom 1987; Meriläinen 2006). The substitutions found in the corpus are illustrated in the following.

- (1) a. Eating healthy food, not smoking, drinking alcohol or using drugs, exercising and taking care of *hygienia* are just another part of healthy life (pro *hygiene*, cf. Fi. *hygienia*)
- b. She wants to go abroad, for example *Thaimaa* (pro *Thailand*, cf. Fi. *Thaimaa*)

As example (1 a) indicates, the substitutions often involved a loan word which, apart from a few phonotactic changes, is similar to its English counterpart, or proper names, such as names of countries (example 1 b), which are often of foreign origin as well. There were no significant changes in the frequencies within this category for the period under investigation.

3.1.2 Relexifications

Relexification occurs when the students have used an L1 word form in English, but instead of using it in an unmodified form, they have tailored it to look like an English word. This type of transfer requires that the L1 word

must, in the learner's mind, bear some resemblance to TL words so as to appear as a reliable source for modification. The Finnish language does not offer much potential for such modification, which is why the relexifications occurring in the corpus were mostly concerned with words that were of foreign origin in Finnish. For example:

- (2) a. The usual pets are dogs, cats, mice, fishes, *undulates*, and so on (pro *budgerigars*, cf. Fi. *undulaatti*)
- b. Maybe you don't even want to see tarantulas, snakes, *varans*, rats and so on (pro *monitors*, cf. Fi. *varaani*)

Relexifications being so rare, no significant changes could be observed in their frequencies between 1990 and 2005.

3.1.3 Orthographic transfer

The third transfer category, orthographic transfer, refers to the influence of the L1 spelling conventions in the students' written production. There were three features of Finnish orthography that the students were frequently transferring into English: the usage of compound words, certain rules regarding the usage of capital letters and the replacement of certain letters with their typical Finnish equivalents. For example:

- (3) a. Man built more and more *nuclearpowerstations* (cf. Fi. *ydinvoimala*)
b. I didn't know *spanish* and my friend couldn't talk *english* or *germany* very well (pro *Spanish, English, German*, cf. Fi. *espanja, englantti, saksa*)
c. We are treating animals like somekind of *elektronic* equipment (pro *electronic*, cf. Fi. *elektroninen*)

As exemplified in (3 a), compound words are a tricky area for Finnish students because in English, compound words often consist of two lexical units which are spelled as two separate words, whereas Finnish tends to combine these words into one lexical entity. Another feature of Finnish spelling that proved to be a frequent source for confusion was the difference in the rules for the usage of capital letters (example 3 b). Contrary to English, the names of nationalities, languages, week days and public holidays, to name but a few, are spelled with lower case letters in Finnish. Example (3 c) illustrates the replacement of certain letters with their typical Finnish equivalents. This tends to occur with words that are loan words in Finnish but have been phonologically modified to fit the Finnish norms better by, for example, replacing the letter *c* with the more common *k* or *s*.

As can be seen in Table 3, orthographic transfer had increased in the corpus from 12.34 instances per 10,000 words in 1990 to 17.99 in 2000 and 16.47 in 2005. However, this change was not statistically significant.

3.1.4 Phonetic transfer

The fourth transfer category, phonetic transfer, refers to instances in which phonetic differences between Finnish and English affect the students' spelling of English words. Two types of phonetic influences were found to be the cause for spelling mistakes in the students' production. The first of them is concerned with stress pattern. Finnish is a syllable-timed language, which places stress on the first syllable of the word, and this may cause Finns difficulties in recognising the first unstressed syllables of English words from a stream of speech and make them falsely assume that the words are spelled as in example (4 a). Another type of phonetic transfer occurred with the voiced / voiceless distinction. Finnish has no phonological opposition between the voiced and voiceless plosives *b* and *p*, *d* and *t*, and *k* and *g*, but uses the voiceless *p*, *t* and *k* instead. Consequently, Finns have a tendency to hear these voiced sounds in English words as voiceless and replace them with the voiceless ones in spoken and, as my corpus indicated, sometimes even in written production (4 b).

- (4) a. But we should *member* that they are forming political center of EU (pro *remember*)
b. Hunting is a very popular *hoppy* (pro *hobby*)

As Table 3 shows, phonetic transfer had increased extremely significantly between 1990 and 2005 (AOV: $p < 0.0001$; K-W: $p < 0.0001$)⁴.

⁴ For this study, the significance thresholds are 0.05 for significant, 0.01 for very significant, 0.001 for highly significant and 0.0001 for extremely significant.

3.1.5 Morphological transfer

The final transfer category which is concerned with word form is morphological transfer. In its broadest sense, morphological transfer means the transfer of L1 morphemes into the L2. In my corpus, morphological transfer manifested itself as the addition of plural endings into English words which should be used in the singular. Examples (5 a) and (5 b) illustrate this.

- (5) a. They have been used many kind of jobs, like among
blinds (pro *the blind*, cf. Fi. *sokeat*)
b. *Furnitures*, for example, are usually made in big factories or in the Third World (pro *furniture*, cf. Fi. *huonekalut*)

As Table 3 illustrates, no diachronic changes had taken place in this category.

3.2 Word meaning

3.2.1 Loan translations

Loan translations occur when learners literally translate L1 compound words, idioms or idiomatic expressions into the L2. Very often the transferred words or phrases do not exist in the TL or they may have a different meaning. The following examples from my corpus illustrate this.

- (6) a. Playming long distances and costs are only *fakereasons* for not having exercise (pro *excuses*, Fi. *tekosyitä*)
b. In farm lives dogs and cats, of course, maybe they both *spend* there *cat's days* (pro *lead an easy life*, cf. Fi. *viettää kissanpäiviä*)

As can be seen in Table 3, no changes had taken place in the frequency of loan translations between 1990 and 2005.

3.2.2 Semantic extensions

Semantic extension occurs when learners transfer the semantic properties of their L1 words into L2 words by picking one L2 translation equivalent for an L1 word and extending its meaning. This can be seen in the following examples.

- (7) a. The last time when I need books was when I prepared to the *writing* (pro *matriculation examination*, cf. Fi. *kirjoitukset* 'the writing(s)', 'the Matriculation Examination')
b. Movies are *rolling* too in monday evenings (pro *running, showing*, cf. Fi. *pyöriä* 'roll', 'run' / 'show')

Semantic extensions were a very common type of lexical transfer in my corpus, but, as Table 3 shows, the frequency of semantic extensions had halved from 20.46 in 1990 to 9.88 in 2000 and 11.93 in 2005. This decrease was statistically significant (AOV: $p < 0.01$; K-W: $p < 0.05$).

3.3 Word use

3.3.1 Collocations

Collocations refer to instances in which the students had chosen an incorrect translation equivalent for L1 collocations. This is illustrated in examples (8 a) and (8 b).

- (8) a. Most people have made a living to *bring up* animals
(pro *rear*, cf. Fi. *kasvattaa* ‘grow’, ‘bring up’, ‘rear’)
b. Everybody must *do* their choice themselves (pro *make*)

As shown in these examples, the incorrect collocations the students had chosen were semantically close to the correct English collocations. As Finnish has only one translation equivalent for the two English words (*kasvattaa*, *tehdä*), the students have picked one English word and extended its use into different contexts (in this case, *bring up* to refer to the rearing of animals, or confusing the two English verbs *do* and *make*). As Table 3 shows, incorrect collocations had decreased very significantly during the period under study; their frequency dropped from 7.22 in 1990 to 3.88 in 2000 and 1.99 in 2005 (AOV: $p < 0.01$; K-W: $p < 0.01$).

3.3.2 Functional transfer

Functional transfer is concerned with function words and it occurs when learners assume that L2 words have the same grammatical functions as their L1 equivalents do and extend their use into contexts in which they should not be used. Instances of functional transfer involved

many types of function words, such as relative and demonstrative pronouns (examples 9 a and 9 b).

- (9) a. I think that there are things *what* you can't just forget (pro *that*, -, cf. Fi. *mitä* 'what' a Finnish relative pronoun)
b. Later *it* real world usually looks much better (pro *the real world*, cf. Fi. *se oikea maailma*, *se* 'it')

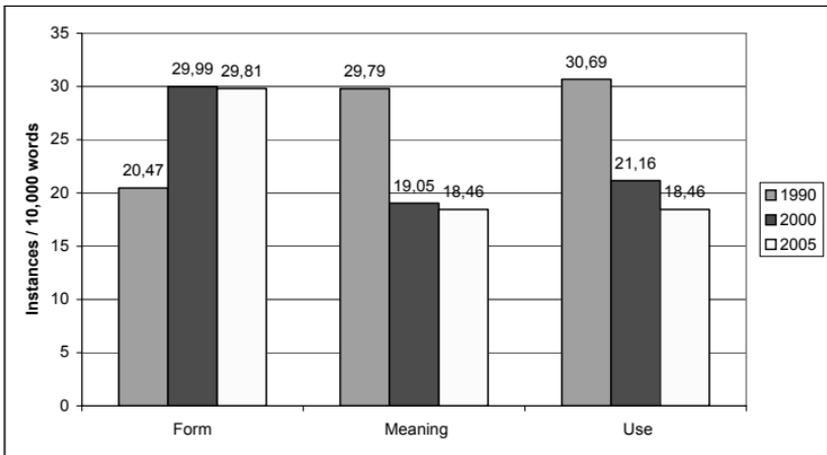
In example (9 a), the student has transferred the Finnish relative pronoun *mitä* into English, its translation equivalent being *what*. In example (9 b), instead of using the definite article, the student has translated the Finnish word *se* 'it' and used it in the function of a definite article. This is because Finnish does not have an article system but expresses definiteness or indefiniteness through other means, such as word order or by using, for example, the words *yksi* 'one' or *se* 'it'. Functional transfer was the most frequent type of lexical transfer observed in the data. As Table 3 shows, a decrease had taken place in their frequency during the period under investigation, but this change did not quite reach a level of statistical significance.

3.4 Patterns in word form, word meaning and word use

The preceding sections presented the results found for each of the transfer categories individually. However, when we investigate these individual transfer categories as broader groups according to the different aspects of word knowledge they involve, i.e. whether the transfer was concerned with the students' knowledge of word forms, word meanings or word use, we can better observe

the changes that have taken place in Finnish students' lexical knowledge during the period under investigation. Figure 1 shows the combined frequencies of the observed transfer categories according to word form, meaning and use. The emerging patterns now allow us to draw more conclusive observations in relation to diachronic differences amongst the data.

FIGURE 1. Frequencies of lexical transfer by word form, meaning and use.



As we can see, the combined frequency of transfer categories relating to word form (i.e. the categories of substitutions, relexifications, orthographic transfer, phonetic transfer and morphological transfer) had increased from 20.47 instances (per 10,000 words) in 1990 to 29.99 in 2000 and 29.81 in 2005. This change was statistically significant according to ANOVA ($p < 0.05$) and almost significant according to Kruskal-Wallis ($p = 0.065$). However, an examination of the combined frequencies

for the two categories of transfer that relate to word meanings (i.e. loan translations and semantic extensions), gives rise to more positive interpretations; their frequency had decreased from 29.79 in 1990 to 19.05 in 2000 and 18.46 in 2005. This change was statistically significant according to ANOVA ($p < 0.05$) and very close to significant according to Kruskal-Wallis ($p = 0.058$). When we investigate the two transfer categories that relate to word use together (i.e. collocations and functional transfer), we can see that transfer relating to word use had also significantly decreased from 30.69 in 1990 to 21.16 in 2000 and 18.46 in 2005 (AOV: $p < 0.05$; K-W: $p < 0.05$).

4 Discussion and conclusion

The changes that have taken place in the number and quality of lexical transfer in Finnish students' written English can be interpreted as a reflection of change in their vocabulary skills. The increase in the instances of lexical transfer that touch upon the formal properties of English words indicates that Finnish students' knowledge of English word forms seems to have deteriorated since 1990. This manifests itself as an increased number of spelling errors in their written English production, such as those in the categories of orthographic transfer and phonetic transfer. However, the decrease in the instances of transfer that involve word meanings (especially in the category of semantic extensions) implies that students today seem to know the semantic ranges and restrictions of English words better than students in 1990 did. Similar positive changes had taken place in their knowledge of

word use in English, which can be seen in the decrease of incorrect collocations and functional transfer. This implies that the students in 2000 and 2005 seem to have been more aware of which contexts and functions certain English words can be used in, as compared to the students in 1990.

I believe that this development can be explained by the current trends in language teaching in Finland and a change in the mode of learning English which has taken place during the past twenty years. In the 1970s and even in the 1980s, the focus in language teaching was primarily on written language and there was much less authentic, spoken English input available for the learners. Since the 1980s, spoken language has gained more prominence in language teaching and the focus has shifted from written language to communicativeness. Moreover, today's Finnish society is filled with English input, e.g. through television and the Internet. Thus, the role of informal language learning cannot be underestimated, either.

The results of this study can be seen to reflect this shift. Those students who took their Matriculation Examination in 1990 had experienced language instruction which places prominence on written language as well as on grammatical and orthographic accuracy. Therefore, these students may have been more aware of English word forms and their accurate spelling than the students who had been influenced by communicative language teaching and informal spoken English input outside the classroom. However, when it comes to the knowledge of word semantics and word use in English, their mastery of Eng-

lish vocabulary was relatively undeveloped in comparison to today's students. As one observes the spelling of English words in the students' compositions from 2000 and 2005, their written English may, at first sight, appear more "sloppy" than that of the students in 1990. However, more importantly, their English displays greater accuracy in word semantics and word use, and these aspects of language are definitely more important for successful communication.

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