

An Empirical Study of Near-synonym Choice: A Comparison of Advanced EFL Learners to L1 English Speakers

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Abstract. Near-synonyms are words which share certain semantic similarities, yet differ in their contextual usage (e.g. *acquire vs obtain, evaluate vs judge*). The current study compares lexical preferences and rationalizations for choosing near-synonyms of advanced C1 level non-native speakers of English ($n = 45$) to those given by native speakers of English ($n = 58$). The data has been collected using a forced-choice questionnaire which also included a justification section meant to explore respondents' reasoning behind their lexical choices. The findings of the study suggest that EFL students may lack the depth of vocabulary knowledge necessary to choose the most suitable word from a pair of near-synonyms. Insufficient knowledge of target words resulted in EFL learners' lexical choices and justifications being statistically different from those given by native speakers. Based on the findings of the study, it is recommended that EFL teachers increase students' exposure to various contexts as well as focus on vocabulary depth.

Keywords: near-synonyms, synonymy, lexical choices, EFL learners, TEFL

Artimų sinonimų pasirinkimas: anglų kalba kaip svetimoji ir kaip gimtoji

Santrauka. Straipsnyje analizuojamas artimų sinonimų pasirinkimas ir tą grindžiantys argumentai. Artimi sinonimai – žodžiai, kurie semantiškai panašūs, tačiau skiriasi jų kontekstinė vartoseną (pvz., *acquire* ir *obtain, evaluate* ir *judge*). Šiame tyrime lyginama, kokius leksinius vienetus iš sinonimiškai artimų žodžių porų pasirenka ir kaip savo pasirinkimą grindžia pažengę C1 lygio anglų kalbos kaip svetimiosios mokiniai ($n = 45$) bei gimtakalbiai anglų kalbos vartotojai ($n = 58$). Duomenys buvo surinkti naudojant priverstinio pasirinkimo klausimyną, kur respondentai galėjo nurodyti ne tik savo pasirinkimą, bet ir jį paaiškinti bei argumentuoti. Tyrimo išvados rodo, kad negimtakalbiams trūksta žodyno kompetencijos, būtinos norint pasirinkti tinkamesnį žodį iš sinonimiškai artimų žodžių porų. Nepakankamas apklausoje naudotų žodžių išmanymas lėmė tai, kad anglų kalbos mokinių leksinis pasirinkimas ir tokio pasirinkimo pagrindimas statistiškai skyrėsi nuo tų, kuriuos pateikė gimtakalbiai. Remiantis tyrimo išvadomis, anglų kalbos kaip svetimiosios mokytojams patartina daugiau dėmesio skirti žodžių vartosenos kontekstui bei stiprinti žodyno kompetenciją.

Raktažodžiai: artimi sinonimai, sinonimija, leksinis pasirinkimas, anglų kaip svetimiosios kalbos (EFL) mokiniai, anglų kalbos kaip svetimiosios mokymas (TEFL)

1. Introduction

The concept of near-synonymy, also known as plesionymy, is an important linguistic phenomenon which, on the one hand, has been widely researched (Cruse 1986; Cruse 2000; Divjak 2008), yet, on the other hand, lacks clear classification and requires further investigation (Cruse 2000; Storjohann 2009). While this phenomenon was predominantly discussed in the context of machine learning and machine translation (DiMarco et al., 1993; Edmonds, Hirst 2002; Inkpen, Hirst 2003; Inkpen 2007), it has been gaining more attention in the field of English as a foreign language (EFL) studies (Liu, Zhong 2014; Kim 2020; Phoocharoensil 2021). Even though there are multiple definitions of near-synonyms, most of them have the following aspects in common: (1) near-synonyms must have overlapping shades of meaning but different contextual usage, (2) contrasting features are of greater importance than shared characteristics, and (3) the differences between the words must be evident, yet they cannot be too substantial (DiMarco et al. 1993; Cruse 2000). In the sentence “I made {an error | a blunder} in introducing her to my husband” (DiMarco et al. 1993: 121), the word *blunder* is different from *error* not only semantically in that it implies greater negligence, but also stylistically. The word *blunder* is more emphatic than *error*, which is reflected in dictionary definitions where *blunder* is defined as “a serious” and “big mistake” as opposed to *error*, which is more neutral and simply implies that what was done “is not correct, not accurate” (*Cambridge Dictionary* n.d.). Such semantic and stylistic aspects suggest that these two words can be regarded as near-synonyms. While in the above-mentioned sentence both words are interchangeable as far as grammatical accuracy is concerned, the meaning of the sentence will change depending on which word is used and this is something a speaker must be aware of.

The abundance of lexical options available for expressing the single concept of a “mistake” is what many EFL learners might find overwhelming. *Thesaurus.com*, for instance, lists 12 other vocabulary items as “the most relevant” synonyms for the word “mistake” (2021) in addition to the already mentioned *blunder* and *error*. What makes things even more complicated for learners of English is the fact that a dictionary might be of little help when it comes to establishing how the synonymous words differ from each other and how to use them accurately. As some studies have suggested, dictionaries often lack the information necessary for learners to be able to dissect the difference in connotations of words regarded as synonyms (Islamiyah, Al Fajri 2019; Petcharat, Phoocharoensil 2017; Liu, Espino 2012; Liu 2010).

Accurate usage of synonymous words may be equally challenging for learners of English at the early stages of language acquisition as for those who already speak English at an advanced level as demonstrated by previous studies (Khazaal 2019; Majed 2017; Nada 2014; Shen 2010). The challenges faced by EFL learners when expanding and applying their knowledge of synonyms is what gives this subject relevance and importance in the context of language proficiency development. The study conducted by Wafa (2018) investigated lexical errors produced by third-year EFL students majoring in English. As a result of error analysis, the researcher observed that 14.6% of the mistakes constituted semantic errors, which might be explained by the fact that the students have “inadequate understanding and acquisition of vocabulary” (Wafa 2018: 163). Confusion of sense relations (10%) and collocation errors (4%) were classified as the most frequent semantic errors, while near-synonyms were shown to be the most challenging words for students. As a matter of fact, near-synonyms turned out to be more problematic than collocations. This may be explained by the fact that when dealing with collocations, lexical choice is determined by the phrase itself and how it is commonly used rather than by the context of the whole sentence as is often the case with near-synonyms. Wafa’s study, along with many others (e.g. Sun 2011; Martin 1984; Khan et al. 2018), highlights the importance of lexical accuracy for developing language fluency. Interestingly, near-synonyms can also be used as a vocabulary teaching technique on their

own. Previous research has demonstrated that teaching vocabulary through pairs of near-synonyms is beneficial for long term memory retention at advanced levels of proficiency in particular (Yevchuk 2021).

While it has been shown that advanced speakers of English do experience difficulties with synonyms, little research has been done on what students' reasoning is behind the lexical choices they make. The current research aims to fill this gap by comparing the argumentation of advanced non-native speakers of English when it comes to choosing between two words which are similar in meaning to the responses given by native speakers of English. Based on the objectives of the study, the following research questions were formulated:

1. Are lexical choices of advanced non-native users of English different from the choices of native speakers of English?
2. Do justifications for lexical choices given by advanced users of English resemble rationales of native speakers of English?
3. Do native speakers of English differ from each other in lexical choices and justifications?

2. Literature review

EFL learners who are trying to master a foreign language are often encouraged to see and interpret linguistic knowledge in binary categories: right or wrong, accurate or inaccurate, natural or unnatural, proper or improper. While these categories might work well for certain goals and in certain circumstances, when it comes to lexical choices, things may not be so black and white. After all, what can be regarded as the “right” word in a given context might be purely subjective. Words communicate ideas, which can be expressed clearly or ambiguously, subjectively or objectively, poorly or effectively. Essentially every speaker brings some unique linguistic configurations and constructions to the table. But are there any identifiable patterns in the way speakers interpret various linguistic contexts and what role does language fluency play in it?

Similar questions have generated a number of studies. For instance, a study conducted by Wongkhan and Thienthong (2020) looks at language fluency in terms of academic experience of the study participants: first- and second-year students formed the less experienced group (LE), while third- and fourth-year undergraduate students were regarded as more experienced (ME). The researchers' goal was to establish whether academic experience makes a difference in regard to students' ability to choose the most appropriate word from a list of synonyms in an academic context, a task that can be quite challenging for students. The researchers chose to study synonyms in the context of collocation, as these linguistic notions are closely related, “in that collocation is adopted as a robust measure for determining near-synonyms and establishing near-synonymy” (Kilgarriff et al. 2014 as cited in Wongkhan, Thienthong 2020: 3). Moreover, as Liu and Zhong (2014) pointed out, the differentiating features of near-synonyms often arise from their typical collocates; therefore, mastering synonyms goes hand in hand with learning collocations. *Significantly* and *importantly*, for example, are synonyms which in many cases can be used interchangeably. In an academic context, however, when the quantitative results of a study are discussed, one is more likely to come across a phrase *significantly different* rather than *importantly different* (Wongkhan, Thienthong 2020: 3).

Regarding the performance of students, the ME group was more successful at choosing the most appropriate synonyms, supported by the fact that the ME group “chose the collocations which expressed high frequency and strong typicality” (Wongkhan, Thienthong 2020: 8). This supports the idea that students can develop sufficient academic vocabulary regardless of whether they are taught vocabulary

explicitly. Regarding students' justifications for their lexical choices, the LE group indicated "making guesses" significantly more frequently than the ME group. The ME group, on the contrary, relied heavily on the context as well as their personal experience with the vocabulary. The researchers concluded that "acquisition and mastery of specialized language like an academic one are significantly attributed to considerable exposure to language in discourse" (Wongkhan, Thienthong 2020: 9) and that the students' ability to choose the most appropriate synonym was positively associated with their academic experience.

Mora and Valls-Ferrer (2012) arrived at a similar conclusion; however, the exposure in their study was measured not in years of academic experience but in months spent studying abroad. The researchers compared what effect two different learning environments, formal instruction (FI) and a study abroad visit (SA), had on the development of fluency, accuracy, and language complexity of EFL students who spoke English at an advanced level at the time of the experiment. The results of the study revealed that "for both fluency and accuracy, the size of the gains obtained during FI is much smaller than that obtained during the SA period" (Mora, Valls-Ferrer 2012: 624). This suggests that SA experience, unlike the FI period, provided the EFL learners with the kind of L2 practice necessary for improving their fluency.

In an attempt to identify patterns in EFL students' cognition, Kim (2020) conducted a study to investigate how students arrive at correct, near-correct, or mistaken answers when they try to discriminate between near-synonyms with the help of cues and concordance lines found in the corpus. The students' task was to identify the differences between the words based on the examples of sentences given to them, which included the target words. The second step involved classifying the vocabulary items and, finally, the participants had to generalize their findings regarding near-synonyms and how these words could be used in other contexts. After collecting the data, participants' answers were analyzed and categorized as either correct, near-correct, or mistaken. The study points out that "[t]he participants arrived at near-correct answers (a) when they failed to examine enough linguistic cues or (b) when they ignored counter-evidence" (Kim 2020: 34). Meanwhile, the mistaken answers resulted from using inappropriate linguistic cues or misinterpreting concordance lines.

In summary, the subject of near-synonyms has been generating an increasing number of studies in the field of teaching English as a foreign language (Mora, Valls-Ferrer 2012; Liu, Zhong 2014; Kim 2020; Wongkhan, Thienthong 2020; Phoocharoensil 2021). One of the reasons why researchers take interest in this linguistic phenomenon is the complex nature of near-synonyms, which presents a challenge for EFL learners at all levels of proficiency. When dealing with near-synonyms, the level of an EFL learners' exposure or direct experience with the language as well as their ability to analyze and deconstruct textual linguistic clues seem to contribute to students' accuracy as well as overall fluency.

3. Methodology

3.1. Participants

The current study involves 45 Estonian high-school senior students with a C1 level of proficiency as determined by a certified placement test (CEPT) administered in October 2020. A group of 58 respondents who speak English as their 1st language (L1) served as a control group in this study.

As Figures 1 and 2 show, the groups were different in terms of their age. While most of the EFL students (86.7%) were 18, the remainder were 19 years old; in the English L1 group, 18 and 19 year-olds comprised less than half (43.1%) of the respondents.

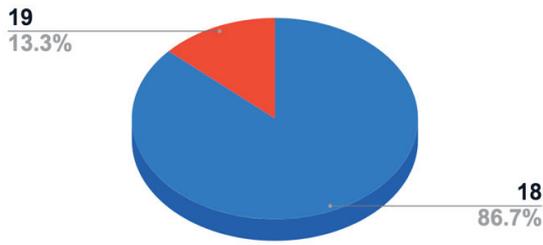


Figure 1. Age of EFL learners

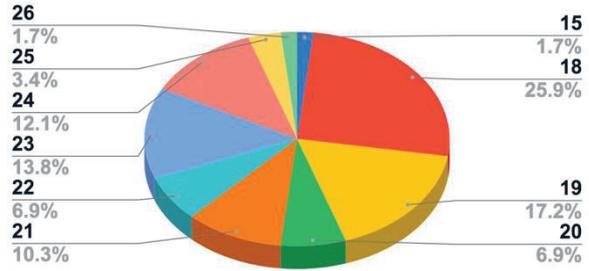


Figure 2. Age of English L1 participants

Even though all EFL students were at a C1 level of proficiency in English, some of them were exposed to English more through academia than others. As Figure 3 demonstrates, most of the EFL students (68.8%) belonged to an English specialized class with a stronger focus on English. As for the academic background of the English L1 group, 67.2% were still in college, 2 were in high school, and 15 were graduate students (see Figure 4).

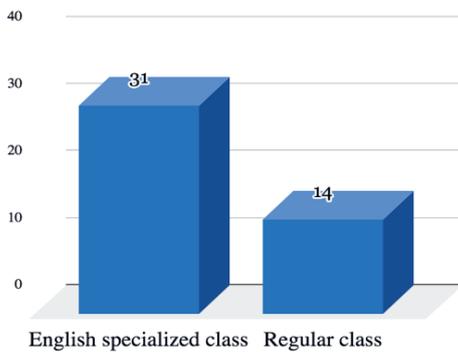


Figure 3. Specialization of EFL students

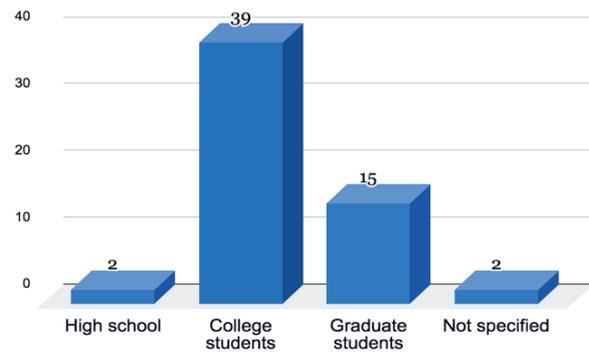


Figure 4. Education of English L1 participants

3.2. Materials and instruments

A forced-choice questionnaire was used to collect data, requiring participants to make a choice and to explain the reasoning behind vocabulary decisions. Each question consisted of a sentence with two near-synonyms to choose from to fill in the blank. A complete list of sentences used in the questionnaire can be found in Appendix 1. For each question, participants who did not speak English as their 1st language had a third option “I don’t know” in order to prevent them from simply guessing the right answer. The students were asked to use this option only if one or both words from the suggested answers were unknown to them. When selecting the “I don’t know” option, students also had to underline the word they were not familiar with.

The sentences used in the questionnaire were selected from the Corpus of Contemporary American English (COCA Davies 2008-). In general, a representative corpus of a particular language variety gives a comprehensive up-to-date overview of how that language is being used, unlike textbooks, which are more of a static snapshot of a language at a particular period of time. The sentences used in the questionnaire were specifically taken from the “Blog” genre of the corpus. Considering the demographic of the participants, sentences originating from informal contexts were included rather than strictly academic texts. Some of the sentences were slightly shortened for efficiency purposes. The sen-

tences were reviewed and approved by a native speaker of English with an advanced degree in English Literature prior to distributing the questionnaire to the participants to ensure accuracy.

The near-synonyms used in the questionnaire consist of 4 pairs of verbs (*modify* vs *transform*; *elevate* vs *lift*; *collect* vs *accumulate*; and *acquire* vs *obtain*); 4 pairs of nouns (*sites* vs *spots*; *fate* vs *destiny*; *fallacy* vs *error*; and *ally* vs *partner*); 4 pairs of adjectives (*intended* vs *intentional*; *important* vs *major*; *unfriendly* vs *hostile*; and *arguable* vs *controversial*); and 4 pairs of adverbs (*repeatedly* vs *regularly*; *deliberately* vs *consciously*; *traditionally* vs *historically*; and *constantly* vs *consistently*). The reason for including verbs, nouns, adjectives, and adverbs is that most studies include only 2 or at the most 3 parts of speech (Liu, Zhong 2014; Kim 2020), meanwhile the current study aims to address this limitation by including 4 lexical categories in order to cover a full range of open word classes.

For the purpose of the study, near-synonyms with syntactic restrictions of structural variation were omitted. “A syntactical restriction is a variation of near-synonyms concerning their grammatical structure. For instance, the words *ajar* and *open* are near-synonyms but *ajar* can only be predicative and not attributive, while *open* can be either way” (Edmonds, Hirst 2002: 111). The reason for such omission was that the participants were advanced speakers of English, thus less likely to be confused by grammatical structure; moreover, with such omission, the focus of the study could be directed at exploring how non-native speakers understand and interpret meanings of near-synonyms.

3.3. Procedure

The questionnaire was distributed to students in Estonia in October 2020. While Estonian students filled out physical questionnaires, L1 speakers completed the questionnaire online. The L1 group was reached through social media, particularly Facebook groups associated with different universities across the US and created for their students.

3.4. Data analysis

As part of the quantitative analysis, the answers provided by EFL students and English L1 speakers were analyzed using IBM SPSS Statistics (Version 23). In order to determine whether the difference between the two groups was statistically significant, a Chi-square test was used. This test is aimed at establishing whether language choices and rationale of advanced speakers of English are statistically different from the answers of English L1 speakers. In certain cases, when over 20% of the expected counts of cells were less than 5, the Fisher’s Exact test was used to obtain the *P* value.

The open-ended answers of the study participants were analyzed qualitatively as well as quantitatively and grouped into five categories similar to those developed by Liu and Zhong (2014). The categories in the current study were labeled as follows: (1) linguistic intuition, (2) context/construal, (3) collocational use, (4) word meaning, and (5) stylistic. Answers which did not fit into either of the categories were excluded from the analysis for the purpose of generalizability. Each category, accompanied with examples of justifications provided by study participants, is discussed below.

(1) Vocabulary building processes differ greatly depending on whether a language is unconsciously *acquired* as a mother tongue or deliberately *learned* as a foreign language. Continuous and systematic exposure to a given language enables a speaker to develop a “feel” for that language, which can be described as appreciation of slight differences in shades of meaning between words (Martin 1984: 130). The question of whether or not advanced EFL speakers can exhibit the same level of intuitive reasoning as English L1 speakers remains open as some believe that having “the most reliable intuitions” is one of the integral characteristics of being a “native speaker” (Crystal 2003: 308), while others think

of language intuition as something that can be learned (Davies 2003). The lexical choices of study participants which were justified by what intuitively felt right were placed in the first category. For instance, such explanations as “sounds odd,” “I’m guessing,” “not sure,” “felt right”, and similar were included in this category.

(2) The complex and, at times, subjective nature of near-synonyms opens the door to interpretation and ambiguity. Despite the fact that there are phrases which are formulaic or fixed, there are countless cases when associations between words are fluid, meaning that there is no single right way of pairing words. Alternative grammatical or lexical ways of meaning-making is what is known as “construal” in cognitive linguistics. As Taylor (2002: 268) puts it, a word or a structure is a representation of “a speaker’s construal of a state of affairs.” In other words, construal is a reflection of a speaker’s point of view and their background knowledge on a subject (Taylor 2002). The context/construal category included cases when a student’s justification was contextualized and involved referencing the original sentence. This category also contained answers which reflected students’ unique ways of interpreting the meaning of the sentences and individual words. Additionally, the category reflected instances when students thought that one word in a pair would work better than the other due to the overall grammar of the sentence. Some examples from this category include such answers as “fits into the context,” “*transform* has a positive feeling [to] it, which goes well with the rest of the sentence,” and “as *purposeful* is a[n] [adjective], then *intentional* has to be also an [adjective]” (in this case the choice is motivated by the parallel structure of the sentence, meaning it is grammatically correct).

(3) In the context of near-synonyms, a more appropriate lexical choice is often determined by “collocational requirements” (DiMarco et al. 1993: 121). Cruse (2000: 76) defines collocations as “the more familiar kind of idioms [that] have to be individually learned.” As has been pointed out in previous studies, the fact that each collocation, as with idioms, has to be learned as an independent unit is precisely what makes acquisition of collocations challenging for EFL learners (Mirjalari, Khoram 2019; Farghal, Obiedat 1995). It is, however, crucial for EFL learners to gain increased and conscious awareness of collocations since the realization that “words do not *go* together, having first been apart, but, rather, *belong* together, and do not necessarily need separating” is what characterizes idiomaticity, a native-like level many EFL learners are striving to reach (Wray 2002: 212). Thus, the explanations of study participants, which reflected the fact that certain words simply “belong together” or can be regarded as fixed expressions, were added to the third category. Some example answers include the following explanations: “archeological site is also a term”; “the expression *fate being decided* is more common”; and “*Modify* just doesn’t suit/go with the word *life*.”

(4) Justifications that simply provided definitions of the near-synonyms and did not refer to the context were put into the fourth category. Some examples include “*transform* means completely change, *modify* is more like adapt” and “arguable – can be questioned, controversial – [stirs] up a lot of “conversation.” The answers which attempted to explain the meaning of the word were also included in this category (e.g. “lift is more physical (as in actually pick something up)” and “site – a significant place, spot – just a place”).

(5) When it comes to synonymic relations between words, style plays an important role and is commonly regarded as an independent classification unit in categorizing synonyms (Punga 2011; DiMarco et al. 1993; Cruse 2000). Such binary distinctions as formal vs informal, standard vs slang, technical vs non-technical, neutral vs poetic, speech vs writing, or a taboo word vs a euphemism comprise stylistic differences between synonymous words (Punga 2011: 82). When analyzing responses given by the study participants, the explanations that referred to the stylistic features of a word or a sentence were included in the fifth category. Some examples of justifications include “It is a more formal word”; “sounds more polite,” and “seems more fitting for academic atmosphere.”

4. Results

While most of the vocabulary items tested in the questionnaire were familiar to EFL students, in two cases (sentences 3 and 7), a high number marked the words *accumulate* and *fallacy* as unknown, prompting them to choose the “I don’t know” option. Such cases were excluded from the data analysis and are not reflected in Tables 1 and 2.

As demonstrated in Table 1, only in 4 cases (items #5, #7, #10, #13) out of 16 sentences, an overwhelming majority of EFL students favored a particular word in a pair. In the 5th item, which included the phrase “archeological *sites/spots*”, 42 (95.5%) students selected the word “sites” while 2 students who selected the word “spots” both used the same justification, suggesting that the word *site* can be used in reference to digital spaces only and not physical ones. In the 7th item, 31 (96.9%) students indicated a preference for *fallacy*. In the 10th item (“The Republic of Ireland consists of 26 counties, which make up the *important/major* part of the large island commonly referred to as Ireland”), 43 (97.7%) students chose the word *major* as opposed to only 1 student who chose the word *important*. Also, in the 13th item (“...studies have *repeatedly/regularly* demonstrated that students in schools with strong school library programs learn more, get better grades, and score higher on standardized tests”), 44 (97.8%) students correctly chose the word *repeatedly*. Other cases, however, did not show such strong preference for one word.

Similarly to EFL students, the L1 group demonstrated strong lexical preferences for *sites*, *fallacy*, and *major* in the 5th, 7th and 10th items, respectively. Additionally, English L1 speakers had nearly a unanimous preference for *transform* in the 1st item with 100% of respondents choosing it; in the 14th item, 56 (96.6%) of the participants chose *deliberately* as opposed to only 73.0% of EFL students; and in the last item 56 (96.6%), L1 speakers chose *consistently* as opposed to only 76.2% in the EFL group.

Table 1. Lexical choices of EFL learners and English L1 speakers

#	Pairs of near-synonyms		EFL learners		English L1 respondents	
			Option A	Option B	Option A	Option B
1	A. modify	B. transform *	9 (20% ^{**})	36 (80%)	0 (0%)	58 (100%)
2	A. elevate	B. lift	30 (75%)	10 (25%)	49 (84.5%)	9 (15.1%)
3	A. collect	B. accumulate	15 (45.5%)	18 (54.5%)	13 (22.4%)	45 (77.6%)
4	A. acquire	B. obtain	17 (43.6%)	22 (56.4%)	36 (62.1%)	22 (37.9%)
5	A. sites	B. spots	42 (95.5%)	2 (4.5%)	58 (100%)	0 (0%)
6	A. fate	B. destiny	39 (92.9%)	3 (7.1%)	52 (89.7%)	6 (10.3%)
7	A. fallacy	B. error	31 (96.9%)	1 (3.1%)	55 (94.8%)	3 (5.2%)
8	A. partner	B. ally	14 (33.3%)	28 (66.7%)	10 (17.2%)	48 (82.8%)
9	A. intended	B. intentional	15 (38.5%)	24 (61.5%)	8 (13.8%)	50 (86.2%)
10	A. important	B. major	1 (2.3%)	43 (97.7%)	0 (0%)	58 (100%)
11	A. unfriendly	B. hostile	15 (34.1%)	29 (65.9%)	13 (22.4%)	45 (77.6%)
12	A. arguable	B. controversial	18 (46.2%)	21 (53.8%)	14 (24.1%)	44 (75.9%)
13	A. repeatedly	B. regularly	44 (97.8%)	1 (2.2%)	50 (86.2%)	8 (13.8%)
14	A. deliberately	B. consciously	27 (73.0%)	10 (27.0%)	57 (98.3%)	1 (1.7%)
15	A. traditionally	B. historically	30 (69.8%)	13 (30.2%)	50 (86.2%)	8 (13.8%)
16	A. constantly	B. consistently	10 (23.8%)	32 (76.2%)	2 (3.4%)	56 (96.6%)

* near-synonyms in bold are the words that appeared in the original sentences taken from the corpus

** % calculated within each group

The results of the Chi-square and Fisher’s Exact tests, summarized in Table 2, revealed a significant statistical difference between the EFL and English L1 groups in 7 out of 16 instances. In the 3rd item (“Most training centers operate on small budgets and must *collect/accumulate* money over time to purchase long-lasting, durable furniture for their classrooms”) with a sample of 91, the option *accumulate* was selected by 41 native speakers and 18 non-native speakers; 13 native speakers and 15 non-native speakers chose *collect*. These frequencies were significantly different, $\chi^2(1, N = 91) = 5.24, p = .022$.

Table 2. Results of the Chi-square and Fisher’s tests for EFL vs English L1

	Pairs of near-synonyms	Chi-score	P value	Fisher’s test P value
1	modify vs transform			.000
2	elevate vs lift	1.362	.243	
3	collect vs accumulate	5.242	.022	
4	acquire vs obtain	3.213	.073	
5	sites vs spots			.184
6	fate vs destiny			.730
7	fallacy vs error			1.000
8	partner vs ally	3.458	.063	
9	intended vs intentional	7.845	.005	
10	important vs major			.431
11	unfriendly vs hostile	1.713	.191	
12	arguable vs controversial	5.113	.024	
13	repeatedly vs regularly			.074
14	deliberately vs consciously			.000
15	traditionally vs historically	4.052	.044	
16	constantly vs consistently	9.564	.002	

P value < 0.05

Lexical choices of EFL students and L1 speakers were also significantly different in the 9th item (“I hope that when people read this book, it just might power their own search for a more purposeful and *intended/intentional* life.”). In the sample of 97, the word *intended* was chosen by 15 EFL students and 8 English L1 respondents, while *intentional* was selected by 50 native speakers and 24 EFL learners, $\chi^2(1, N = 97) = 7.84, p = .005$.

In the 12th sentence (“Although this is *arguable/controversial*, the notion that teachers decide which choices of methods and materials will produce student success turns out to be very useful in discussing competence.”), *arguable* was favored by 18 EFL students and 14 L1 speakers, while *controversial* was preferred by 44 L1 speakers and 21 EFL students, $\chi^2(1, N = 97) = 5.11, p = .024$.

30 EFL learners and 50 participants in the L1 group chose *traditionally* in the sentence “Breakfast is *traditionally/historically* believed to be the most or at least one of the most important meals of the day, but there is not much data available to say “yes” or “no” to this belief.” The second option, *historically*, was favored by 13 Estonian and 8 L1 speakers, $\chi^2(1, N = 101) = 4.05, p = .044$.

In the 16th item (“Research has *constantly/consistently* demonstrated that mental relaxation enables the brain to effectively clear itself and reboot, all the while forming new connections and associations.”), 56 out of 58 respondents who speak English as their first language chose *consistently*. This option was selected by 32 out of 42 EFL students, $\chi^2(1, N = 100) = 9.56, p = .002$.

Based on the results of the Fisher’s Exact test, it was established that the frequencies were significantly different in the 1st item (“It’s all part of our university’s unshakable belief in the power of education and the idea that teachers can *modify/transform* students’ lives.”) and in the 14th one (“I can’t believe the media in this country are *deliberately/consciously* trying to ignore this story because they know it will damage the president’s chances of being reelected.”). In the 1st item, L1 speakers unanimously chose “transform” as opposed to 9 out of 45 Estonian respondents ($p = .000$). In the latter sentence, 57 out of 58 L1 speakers selected *deliberately* as opposed to 27 out of 37 EFL respondents ($p = .000$).

As far as for choice justification (summarized in Table 3), clear differences between explanations of EFL learners and L1 speakers can be observed. First of all, 4.2% of EFL learners referred to their intuition when explaining lexical choices. Meanwhile, less than 1% of responses given by L1 speakers fall under this category. Quite the opposite can be said about the stylistic category. While 4.2% of L1 speakers’ justifications referred to stylistic features of sentences, only slightly over 1% of answers given by EFL learners mentioned it. What is more interesting is that the rest of the responses given by L1 speakers are fairly equally distributed among the remaining three categories: context/construal ($\approx 28\%$), collocational use ($\approx 27\%$), and word meaning ($\approx 33\%$). The distribution patterns of EFL learners’ answers associated with these categories, however, differ. A strikingly low percentage of answers (less than 9%) referred to collocational use of target near-synonyms. Moreover, nearly half of all answers given by EFL learners (45.5%) belong to the word meaning category. The number of responses belonging to the context/construal category was, on the other hand, fairly the same: 26.1% of total responses given by EFL learners and 27.8% of English L1 speakers’ answers. The responses that were incomplete or missing are reflected in the “not analyzed” section of Table 3.

Table 3. Rationale of EFL learners and L1 participants

Rationale	EFL learners		L1 respondents	
	№ of responses	% of total responses	№ of responses	% of total responses
linguistic intuition	30	4.20%	8	0.90%
context/construal	188	26.10%	258	27.80%
collocational use	62	8.60%	248	26.70%
word meaning	328	45.50%	307	33.10%
stylistic	10	1.40%	39	4.20%
not analyzed	102	14.20%	68	7.30%
Total	720		928	

Study participants’ free-form justifications for their lexical choices, which were coded based on the categories discussed in Section 3.4, were also analyzed statistically using the Fisher’s test to establish if the differences between the two groups were statistically significant. As reflected in Table 4, only in two instances (sentences 4 and 11), the difference was statistically insignificant.

Table 4. Results of the Fisher’s test

Pair #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Fisher’s test P value	.032	.003	.00	.576	.00	.001	.00	.002	.00	.003	.09	.00	.00	.003	.017	.006

P value < 0.05

5. Discussion

Lexical choices and supportive reasoning by study participants who speak English as either their 1st or foreign language were the primary focus of the current research. One of the main goals of the study was to compare the answers of the two groups and to analyze differences between them. The results of the study yield a number of important findings in this regard. First, while in most cases (12 out of 16 sentences) English L1 speakers had a strong preference for one word in the pair (with at least 80% of them choosing the same word), in the case of the EFL group, in less than half of the sentences (6 out of 16), the answers were as accordant. The fact that EFL learners were so split on their choices supports the claims made by other researchers regarding how synonyms remain challenging for non-native speakers even at advanced levels of proficiency (Khazaal 2019; Majed 2017; Nada 2014; Shen 2010). This claim is further supported by the statistically significant difference in 7 instances between the lexical choices of EFL learners and English L1 speakers.

Based on the results of the questionnaire, it can be inferred that despite having a sufficient vocabulary size to have reached English C1 level, EFL students lack vocabulary depth that would allow them to successfully choose the most appropriate word in various contexts. Vocabulary depth as opposed to vocabulary size (the number of vocabulary items and types a speaker knows) is defined in terms of “how much learners know about the meanings of the words they are familiar with, along with the connections that exist among the word meanings they know” (Curtis 2006: 54). In other words, depth of vocabulary is not a pinnacle that can be reached but rather a spectrum that can be broadened: the vaster the network of associations and meanings connected with a word, the broader the spectrum becomes. To be able to broaden students’ knowledge of vocabulary, it is necessary to understand what *knowing* a word means.

Richards (1976) breaks down vocabulary knowledge into 7 blocks. According to him, knowing a word entails knowing its frequency (how common a word is); understanding functional and situational restraints that come with the word (word register); being aware of its grammatical and structural properties (e.g. transitive and intransitive verbs); being familiar with all forms of the word (adjective, noun, verb, or adverb); having a network of association related to the word (e.g. synonyms and antonyms); grasping semantic features of the word (e.g. animate or inanimate, and human or non-human); and finally, knowing all the meanings accompanying the word (context-dependent meanings) (Richards 1976). For instance, in the 3rd sentence (“Most training centers operate on small budgets and must *collect/accumulate* money over time to purchase long-lasting, durable furniture for their classrooms.”), the word *accumulate* is more suitable as it drives the point of “over time” better. Also, using the word *collect* would imply that centers are asking for money, meanwhile the main idea of the sentence is that the centers need to save up. A striking number of EFL learners (45.5%) thought that *collect* was a better word choice. Looking at students’ justifications for choosing *collect*, it becomes clear that they do not truly *know* the meaning of *accumulate*, at least not in the sense that Richards defines *knowing*. Even though the students are familiar with some connotations of the word *accumulate*, they are not aware of all its meanings and semantic features. A common reason for not choosing *accumulate* was that this verb implies that centers are not putting any effort into the process of gathering the necessary resources, whereas *collect* suggests that they are actively involved in this activity. Clearly L1 speakers of English are more successful at choosing between similar words as they have a more comprehensive understanding of the range of syntactic, semantic, and stylistic features associated with each word.

Additionally, the research was aimed at establishing how justifications of advanced non-native users of English are different from native speakers of English. The results of the study revealed that EFL learners differ in their reasoning behind lexical choices from native speakers, as demonstrated by the

statistically significant difference in 14 sentences out of 16. Similarly to the findings of Liu and Zhong (2014), the word meaning category was dominant in both groups: 45.5% of justifications given by the EFL group were assigned to this category versus 33.3% in the L1 group. EFL learners appear to be more inclined to reason in terms of dictionary-like definitions when it comes to near-synonym discrimination, which might be related to the fact that dictionary use remains one of the most common vocabulary learning strategies among EFL learners (Laffey 2020; Fan 2020; Panduangkaew 2018). The definition of a word, however, does not necessarily communicate anything about connotations attached to the word; it does not elaborate on any associative connections, such as synonyms or antonyms surrounding the word, or explicitly mention common word collocations.

While dictionaries are undeniably useful for vocabulary learning purposes, they might not offer sufficient input to EFL learners of the intricacies of word meanings. The fact that advanced learners of English were not able to successfully choose the most appropriate word in nearly half of the sentences may suggest that EFL learners lack exposure or real experience with the language, unlike native speakers who are, as a rule, immersed into the language environment. EFL learners who participated in the study all came from the same environment where English was taught through formal instruction. One of the most apparent differences between native speakers and EFL learners is the amount of exposure they get to the target language. Immersive experience could facilitate learning and contribute to the development of fluency as suggested by the results of Mora and Valls-Ferrer (2012).

Another interesting difference between EFL learners and L1 speakers is that L1 speakers referred to the collocational use of certain phrases tested in the study more frequently than EFL learners, 26.70% as opposed to 8.60%. This finding suggests that EFL learners are less aware of the collocational nature of language than L1 speakers, which could have resulted in mistaken answers. According to Laufer and Waldman (2011), advanced learners' frequent attempts to utilize collocation in their speech often result in producing unnatural word combinations (as cited in Fioravanti et al. 2020: 292). In this study, which compared second language learners' (L2) to L1 speakers' intuition regarding lexical fixedness of word combinations (collocation), the researchers concluded that L2 speakers failed to recognize "lexical restrictions of collocations" and thus were more likely to deem a synonym of the original verb used in a verb + noun collocation as a more acceptable option than the original word (Fioravanti et al. 2020).

The final goal of the study was to establish any differences among native speakers in their lexical preferences and justifications. While in most cases an overwhelming majority of L1 speakers (over 80%) had a strong preference for one word in the pair, in 4 cases (sentences 3, 4, 11, 12) out of 16 the respondents' answers were more split. In the third sentence ("Most training centers operate on small budgets and must *collect/accumulate* money over time to purchase long-lasting, durable furniture for their classrooms."), 22.4% of respondents chose *collect*. A common reason for choosing *collect* was that it is more of an "active," "direct," and "intentional" verb, while *accumulate* sounds more "passive."

The most drastic difference between two near-synonymous words was the 4th sentence ("A scientist in a broad sense is one engaging in a systematic activity to *acquire/obtain* knowledge.") where only slightly more than 60% chose *acquire*, while the rest preferred *obtain*. "Personal preference" and "sounds better" were commonly cited as the main motivation for choosing *obtain*; however, the same explanations were given by the proponents of *acquire* just as frequently. Also, those who chose *acquire* often mentioned that this verb works better with abstract things like knowledge, while *obtain* would be more appropriate to use with physical objects, like a driver's license or a degree. One respondent wrote that in their opinion *obtain* gave a sense of learning something new, while *acquire* implied understanding something that is already known as the reason for choosing *obtain*. Considering that among those who speak English as their first language, there was no clear agreement as to which near-synonym would work better in the sentence, it might be beneficial to look closer into this pair of near-synonyms.

Another case where there was no clear agreement among L1 speakers was the 11th sentence (“The president is positively obsessed with it, but most of the public seems either indifferent or *unfriendly/hostile* to the idea of spending their money on favored green projects.”). 22.4% of respondents chose to use *unfriendly*, attributing it to the fact that *hostile* sounded too “extreme,” “aggressive,” “intense,” or “harsh.” Some of the answers mentioned that *unfriendly* shared more similarities with the adjective *indifferent* used in the sentence, and this is what prompted them to choose *unfriendly*. Yet again, similar reasoning resulted in 77.6% of participants favoring *hostile*. Those who chose *hostile* described *unfriendly* as “too mild” with *hostile* having “more emotional weight” and going better with ideas/opinions/public attitudes. Another common reason for favoring *hostile* was the political context which might call for charged language.

In the 12th sentence (“Although this is *arguable/controversial*, the notion that teachers decide which choices of methods and materials will produce student success turns out to be very useful in discussing competence.”), 24.1% chose *arguable*. Some explained their choice by the fact that this adjective works better with *notion*, as *notion* stands for an idea which can be argued, and this adjective makes it feel like there is a conversation taking place around the subject. Also, some said that *arguable* works better in this sentence as *controversial* is too strong and would imply that the topic is sensitive, while in reality it is not. Again, some of the reasons given by those who chose the other near-synonym were diametrically opposite to the ones mentioned earlier: “A notion is not arguable, it’s controversial” and “arguable sounds too fierce.”

In summary, native speakers may also arrive at mistaken answers when considering near-synonymous words as demonstrated by the examples of the sentences described above. Just as EFL students at the same level of proficiency differ from one another in their answers, L1 speakers might also have opposing views on interpreting the meaning of words and sentences. Such factors as age, level of education, socioeconomic status, and various sociolinguistic aspects might play a role in a speaker’s language comprehension and production skills. Additionally, the factor of having limited context may have influenced study participants’ lexical choices. Even though language is subjective, when dealing with specific instances, lexical choices become a matter of accuracy rather than individual preferences.

6. Conclusion

As demonstrated by the findings of the current research, advanced EFL learners experience difficulties when it comes to using near-synonyms accurately. This might be attributed to the fact that they lack exposure to the target language as well as their limited vocabulary depth. Additionally, EFL students seem to be unaware of collocations and their restrictive nature, and specifically the fact that there is less freedom and flexibility when it comes to collocates as these are predominately fixed expressions. The findings of the study suggest that EFL learners should be encouraged to articulate the differences between near-synonyms—specifically in cases where a word choice is not a matter of collocation but of semantics—as it may not only contribute to accuracy but also improve fluency. Additionally, the findings highlight the potential need for further research into near-synonyms (as they may play an important role in EFL curriculums) addressing a vocabulary knowledge gap elucidated by this study. In the context of teaching English as a foreign language such encouragement might be implemented in the form of corpus-based vocabulary exercises as well as through an inventory of students’ reasoning about near-synonyms, which is not commonly accounted for in standardized testing. Unlike using a dictionary which presents a condensed version of a word, a corpus provides a more diverse space for exploring various associative meanings of each word through unique and authentic texts that ultimately give a more comprehensive lexical picture of target words. A corpus offers the possibility to easily

find numerous examples of common word usage by looking at concordance lines, which can be sorted by text or genre type. Moreover, corpus tools such as frequency lists, collocations, and grammatical sequences, among others, can be utilized in the EFL classroom to enhance vocabulary teaching. Additionally, teachers should strive for increasing students' exposure to samples of natural language through authentic materials to improve students' understanding of the target culture and ultimately increase their fluency.

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Appendix 1. The questionnaire sentences with near-synonymic pairs of target words.

1. It's all part of our university's unshakable belief in the power of education and the idea that teachers can *modify/transform* students' lives.
2. There are certainly a handful of superhero books I'd *elevate/lift* to the level of literature, but they are definitely not the majority.
3. Most training centers operate on small budgets and must *collect/accumulate* money over time to purchase long-lasting, durable furniture for their classrooms.
4. A scientist in a broad sense is one engaging in a systematic activity to *acquire/obtain* knowledge.
5. Scientists in Sweden have completed a preliminary investigation of one of the most disturbing archaeological *sites/spots* to be uncovered in recent memory.
6. My gut feeling was telling me that both the shop itself and the village really deserved at least twelve months of hard work before its *fate/destiny* was decided.
7. The perception of a universal ideal weight is a complete *fallacy/error* since everyone's metabolism is different along with an individual dietary intake.
8. A well-rounded exercise regimen is your *partner/ally* to fighting disease, and to quitting smoking.
9. I hope that when people read this book, it just might power their own search for a more purposeful and *intended/intentional* life.
10. The Republic of Ireland consists of 26 counties, which make up the *important/major* part of the large island commonly referred to as Ireland.
11. The president is positively obsessed with it, but most of the public seems either indifferent or *unfriendly/hostile* to the idea of spending their money on favored green projects.
12. Although this is *arguable/controversial*, the notion that teachers decide which choices of methods and materials will produce student success turns out to be very useful in discussing competence.
13. Not only do strong school library programs create an environment where independent reading is valued, promoted, and encouraged, but studies have *repeatedly/regularly* demonstrated that students in schools with strong school library programs learn more, get better grades, and score higher on standardized tests.
14. I can't believe the media in this country are *deliberately/consciously* trying to ignore this story because they know it will damage the president's chances of being reelected.
15. Breakfast is *traditionally/historically* believed to be the most or at least one of the most important meals of the day, but there is not much data available to say "yes" or "no" to this belief.
16. Research has *constantly/consistently* demonstrated that mental relaxation enables the brain to effectively clear itself and reboot, all the while forming new connections and associations.