Repetition in non-native texts: A comparison of argumentative essays written by L2 learners of English and German

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Die Kohäsion, d.h. Textoberflächenverbindungen zwischen Sätzen und Textteilen, wird durch verschiedene grammatische und lexikalische Kohäsionsmittel erreicht (vgl. Halliday & Hasan 1976). Im Kontext des Zweitsprachenlernens (L2) bedeutet das, dass L2-Lernende die Fähigkeit erwerben sollen, Kohäsionsmittel angemessen zu benutzen. Die vorliegende Studie untersucht die Verwendung von Wiederholungen als einem bestimmten Typ der Kohäsionsmittel in 30 argumentativen Texten der L2- Deutschlernenden und in 30 Texten der L2-Englischlernenden. Im Gegensatz zu früheren Studien fokussiert sich die Analyse auf die Form der wiederholten Einheiten und die Unterschiede zwischen deutschen und englischen L2-Texten. Die Ergebnisse zeigen, dass in den analysierten L2-Texten die Wiederholung von orthografischen Wörtern häufiger als die von Phrasen und Satzmustern vorkommt. Englische L2-Texte weisen einen höheren Anteil an Variationen als deutsche L2-Texte auf.

1. Introduction

Text production is a complex process involving not only generation and formulation of ideas, but also attending to how to weave those ideas into an interconnected unit. A writer's task is to create links between different text segments in order to maintain coherence (Halliday & Hasan 1976) i.e. semantic and conceptual relationships between parts of the text (Averintseva-Klisch 2013). This goal can be achieved by using "lexicogrammatical systems that have evolved specifically as a resource for making it possible to transcend the boundaries of the clause […] and are collectively known as the system of COHESION" (Halliday & Matthiessen 2004: 532). While it may be argued that cohesion is conceptually shared by all languages, how it is realised in texts in terms of linguistic choices may be dependent, inter alia, on the distinct features of a particular language.

Producing a piece of writing that will be perceived by readers as cohesive and coherent presents a considerable challenge to any writer, but even more so to non-

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native users, who may struggle with aspects such as selecting linguistic devices in line with morphological and syntactic rules of their second language (L2). As part of an extensive analysis of cohesion and coherence in L2 writing, the study reported in this article explores the formal aspect of a particular subset of cohesive devices – that of repetition – used in texts by Croatian university students of L2 English and German. The focus on repetition has been motivated by a rather contradictory perception of its usage: while text linguists see repetition as a powerful device exerting a significant cohesive force, (foreign) language teachers at large often advise avoiding it when giving instructions for writing a composition or an essay on some general topic. The present study is in essence exploratory for it aims to identify the repetition types in English and German L2 texts, but it also seeks to establish if between the two groups of writers there are any similarities and, especially, differences that may point to specific aspects of repetition as used by non-native writers. This, in turn, might have considerable practical implications for academic writing courses if they are to be adapted to students' needs.

Before embarking on the details of the study, we discuss the notions of cohesion and repetition and offer an overview of relevant studies on repetition in L2 texts.

2. Cohesion

Cohesion and coherence are generally considered the key features of good writing. While coherence remains a much debated illusive concept among text linguists, the discussion of which falls outside the scope of this article,[4] there seems to be an agreement as to what constitutes cohesion. Cohesion refers to overt semantic relations between lexical and grammatical items in the text (Halliday & Hasan 1976; de Beaugrande & Dressler 1981; Hoey 1991; Averintseva-Klisch 2013). What most of its definitions suggest, cohesion is characterised by several important features: it is a 'semantic' concept, because it "refers to relations of meaning that exist within the text and that define it as a text" (Halliday & Hasan 1976: 4); it is a 'relational' concept: an item is not cohesive in its own right, a relation to another item makes it cohesive; it is a 'context-dependent' concept: to deem a relation between two items cohesive requires its interpretation in the context of the discourse (Hoey 1991); it surpasses grammatical structure (Halliday & Hasan 1976; Halliday 1994); it concerns features of the textual 'surface' (Mahlberg 2009: 103), it refers to both 'grammatical' and 'lexical' elements which

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4   But see e.g. van Dijk (1977); Widdowson (1978); de Beaugrande and Dressler (1981); Brinker (2001); Adamzik (2016).

form connections between text segments, both intra-sententially and inter-sententially, with potentially quite large text segments in between the two (Tanskanen 2006). Two lexical items that are semantically bonded form a cohesive tie (Halliday & Hasan 1976; Hasan 1984), or a link (Hoey 1991), or a cohesive unit (Tanskanen 2006). Hence, it is the idea of "two-ness" (Hasan 1984: 185) that underlies cohesion: cohesion is formed when two items are directly related to each other (Halliday & Hasan 1976) whereby they may but do not need to have the same referent (Halliday & Hasan 1976: 318f.; Halliday & Matthiessen 2004). In addition to co-reference, cohesion can also be created by a comparative reference (Halliday & Hasan 1976: 282). So, a cohesive pair is formed if its second element is interpretable in connection to the first, i.e. if the two linguistic items come from the same semantic field and form a co-extensional tie (Hasan 1984; Morley 2009: 6).

The above enumerated features of cohesion have been incorporated into all classifications of cohesive devices, albeit in somewhat different ways. Following the seminal early model proposed by Halliday and Hasan (1976), cohesion is analysed by examining what has become to be known as cohesive devices. These cohesive devices, or markers, are generally divided into two broad categories of cohesive relations: grammatical and lexical.

The cohesive effect achieved by the selection of lexical items is called lexical cohesion. "Lexical cohesion is about meaning in text" (Flowerdew & Mahlberg 2009: 1). It is based on the premise that lexical items "are not defined in terms of particular grammatical environments" (Halliday & Matthiessen 2004: 538) and that they form semantic relationships with other lexical items that have occurred before in a particular context (Halliday & Hasan 1976: 274). In other words, lexical cohesion rests on the networks of lexical relations that are created in discourse. Because it encompasses items which belong to an open system (Martin 2001: 37) and which often enter multiple relationships, lexical cohesion may be expected to account for many of the cohesive ties, thus making a significant contribution to making a text a text (Halliday & Hasan 1976; Hoey 1991; Károly 2002; Flowerdew & Mahlberg 2009).

The existing taxonomies of grammatical cohesive devices seem to mainly follow Halliday and Hasan's (1976) model and include reference, ellipsis, substitution, and conjunction, whereas those of lexical cohesion usually incorporate two basic categories, i.e. repetition and collocation.

2.1 Repetition as a cohesive device

Repetition or reiteration – an occurrence of an item that has been previously mentioned in the text – is "the most direct form of lexical cohesion" (Halliday & Matthiessen 2004: 571). It is often considered central to lexical cohesion (Hoey 1991: 6) and therefore features in all classifications of lexical cohesive devices (see Table 1).

Table 1: Classifications of lexical cohesion (summary)

Halliday and Hasan (1976)	Hasan (1984)	Martin (1992)[5]	Hoey (1991; 1994)	Halliday and Matthiessen ([3]2004)	Tanskanen (2006)	Averintseva-Klisch (2013)
Reiteration: same word (repetition)	A. General:	Taxonomic: repetition	Repetition: simple & complex	Repetition	Reiteration: simple & complex repetition	Recurrence (full or partial)
	Repetition	Taxonomic: synonymy	Repetition: substitution			Substitution
Reiteration: synonym (or near synonym, incl. hyponym)	Synonymy	Taxonomic: hyponymy	Repetition: superordinate	Synonymy: synonymy in the narrower sense	Reiteration: substitution	Synonymy
	Antonymy	Taxonomic: meronymy	Repetition: hyponymy	Synonymy: super-ordinates	Reiteration: equivalence	Hyponymy or hyperonymy
Reiteration: super-ordinate	Hyponymy	Repetition: simple paraphrase	Repetition: complex repetition or paraphrase	Hyponymy	Reiteration: generalisation (subordinate or hyponymic)	Metaphor
Reiteration: general noun	Meronymy	Taxonomic: contrast	Repetition: closed set	Meronymy		
		Nuclear: extending and enhancing	(Repetition: complex paraphrase)	Co-hyponymy	Reiteration: specification (meronymy)	
				Co-meronymy	Reiteration: co-specification (co-	
	B. Instantial:			Synonymy: antonymy	hyponymy & co-meronymy)	
	Equivalence Naming Semblance				Reiteration: contrast	
Collocation				Collocation	Collocation[6]	

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5   A simplified overview based on Tanskanen (2006).
6   Reduced to the overarching term, but contains more elaborate subcategories.

Although there are some terminological differences, all classifications in Table 1 distinguish between a straightforward simple repetition referring to recurrence of an item in an identical form, and a complex repetition, i.e. instances where the repeated item in some semantically based way resumes the previous one, but takes a modified form. Most complex modifications that are recognized as repetition can be identified in terms of types of paradigmatic lexical relations, i.e. synonymy, hyponymy, meronymy, antonymy, etc. Just as in lexical semantics – or perhaps because of that – their definitions as cohesive devices are often quite vague and their boundaries fuzzy, which the authors readily acknowledge or play down as being less important for text analysis than linguistic description (cf. Halliday & Hasan 1976; Hoey 1991). Tanskanen (2006) chooses to replace those labels with more general discourse-based terms to enable her to focus on discourse-specific lexical relations resulting from the writer's decision to use an item and to avoid constraints imposed by the preconceived lexico-semantic categories and descriptions. Thus, the differences in classifications outlined in Table 1 are mostly attributable to the wide range of paradigmatic semantic relations that lexical items potentially have. Since the primary purpose of classifications has often been to serve as a tool for text analysis, they focus on different aspects. Therefore, they should not be perceived as competing, but rather as complementing each other (Tanskanen 2006).

The fact that some text linguists (de Beaugrande & Dressler 1981; Adamzik 2016) do not make an explicit distinction between lexical and grammatical cohesive devices supports this point of view. Yet, de Beaugrande & Dressler's (1981) description of how patterns are reused refers to lexical recurrence which includes recurrence (exact repetition of elements or patterns); partial recurrence (adapting the expression to the setting, e.g. shifting of elements to different word classes, but using the same basic items); parallelism (adding a new element to a repeated structure); and paraphrase (rewording the repeated content).

The problem of what falls into the category of repetition is further aggravated by the question whether using pronouns to substitute nouns is viewed as grammatical or lexical cohesion. Hoey (1991), Tanskanen (2006) and Averintseva-Klisch (2013), to name a few, treated such cases as a special type of repetition, which they justify by the fact that pronouns function similarly to genuine lexical repetition. This, in fact, can be traced back to Halliday and Hasan (1976), who – despite considering pronoun substitution as an example of a grammatical category of reference – implied that if repetition is viewed as "as a means of avoiding the repetition of lexical items" (Halliday & Hasan 1976: 281), pronoun substitution would be treated as lexical repetition. The present study involves only pronoun repetition (e.g. "we">"we") but not pronoun substitution, since the starting point was the recurrence of wording involving a semantic tie.

The definitions of repetition types suggest that cohesion does not depend "on the presence of explicitly anaphoric items […], but on the establishment of semantic relation which may take any one of various forms" (Halliday & Hasan 1976: 13). Repeated items are not necessarily co-referential, even if often they are, but they must be conceptually equivalent (de Beaugrande & Dressler 1981), i.e. contextually related and based on identity (Halliday & Mathiessen 2004; Tanskanen 2006). If the two items used have "markedly different senses" they cannot be regarded as repetition (Hoey 1991: 54).

As lexical cohesion is based on semantic relations created between two constituents in a textual environment, it is not sufficient to clarify what those semantic relations are, but we need to ascertain how they are linguistically realised, i.e. what 'form' those constituents may take. To do so, however, the aspect of semantic relations and the aspect of form must be observed in chorus. Namely, semantic relations imply a relationship between constituents based on meaning, but meaning often spans larger language constituents. Besides, the two semantically related constituents may but do not have to be formally related (Halliday & Hasan 1976: 8). Therefore, what is implied by 'constituents' cannot be covered by the folk-linguistic term 'word'. As a solution, the term 'lexical item' has been introduced (cf. Sinclair 2004). It clearly shows that "a unit of meaning is not the same as a single word" (Mahlberg 2009: 112) and, in the analysis of lexical cohesion, it allows for taking into consideration units other than orthographic words, i.e. phrases or clauses (Sinclair 2004: 84).

Many text linguists use the term lexical item in their discussion of lexical cohesion (e.g. Halliday & Hasan 1976; Hasan 1984; Mahlberg 2009), although they often simply use it in place of 'word' (cf. Martin 1992), conceptualise it in various ways, or use other terms more or less synonymously. In addition to lexical items, Halliday and Hasan (1976: 7) also use the term 'structured units' which they define as grammatical units, i.e. sentences, clauses, groups and words, that are potentially internally cohesive. However, the examples in their analysis (Chapter 8) contain mostly single orthographic words and a few compounds (e.g. nail box) and phrases (e.g. thirty years old, a group of students, thing lost – I didn't lose anything). Hasan (1984: 194) defines lexical items as "ways in which a lexical category may be realised" but also uses the term 'lexical tokens'. The examples she provides are very similar in form to those found in Halliday and Hasan (1976). To refer to the choice of lexical and grammatical items, Halliday and Hasan (1976) and Halliday and Matthiessen (2004) occasionally use the term 'lexicogrammatical form', i.e. wording. The view that a strict separation of lexis and grammar is unnecessary is also expounded by recent corpus linguistic theories and ardently advocated by Mahlberg (2009). Both Tanskanen (2006) and Károly (2012) opt for the term 'lexical unit'. Károly (2002: 97) defines it as "a unit whose

meaning cannot be compositionally derived from the meaning of its constituent elements" and includes a one-word unit (also including compounds orthographically realised as one word with or without hyphen), idioms (including phrasal verbs), and phrasal compounds (such as noun + noun or adjective + noun that are often used together to denote a concept). But Tanskanen (2006: 10) argues that she chose the term lexical unit mainly because it enables her to define it depending "on the text and the context in which it is used".

De Beaugrande and Dressler (1981), whose model of cohesion is largely based on repetition, find it necessary to analyse the recurrence of not only elements but also of patterns (i.e. units of syntax) which encompass the phrase (a head with at least one dependent element), the clause (a unit with at least one noun or noun-phrase and an agreeing verb or verb-phrase), and the sentence (a bounded unit with at least one non-dependent clause). They provide the following example: "For quartering large bodies of troops ... For protecting them ... For cutting off our trade ... For imposing taxes ... For depriving us ... For transporting us ... For abolishing the free System" (ibid.: 61). In addition to repetition of lexical items, repetition of the format may also help establish points of contact and hence facilitate text reception, given the limited time and processing resources. This view is shared by Averintseva, Bryant and Peschel (2019) who emphasise the need to include phrases in the analysis of repetition for pedagogical purposes as well.

In this study, Altmann and Köhler's (2015) term 'textual unit' is used, because it is possibly the broadest of all. It denotes "any phenomenon in a text which can be defined in an operational way, i.e. a phenomenon which can be identified unambiguously on a set of criteria and whose properties can be measured" (ibid.: 1). The list of potential textual units includes graphemes, morphemes, lexemes, word-forms, phrases, clauses, sentences, paragraphs, metrical foot, motifs, etc. The researcher can classify the units according to an unlimited number of properties (e.g. word class, derivations, compounds, inflectional paradigm, relative frequency, number of synonyms, etc.), or their function in discourse (e.g. grammatical function, reference, co-reference, anaphora, cataphora, argumentation, etc.), which can be further subdivided if necessary.

Next, 'repetition' is used as an overarching term referring to all instances of recurrence of wording in the text, regardless whether it is repeated fully or partially. 'Wording' is defined as the choice of words and grammatical structures (Halliday & Matthiessen 2004). To be identified as repetition, the repeated textual unit must share the information content of the resumed textual unit, i.e. there has to exist a semantic tie between two elements.

2.2 Repetition in L2 texts

As the large body of research on lexical cohesion in L2 writing suggests, repetition seems to be the most frequently used type of lexical cohesion by L2 learners regardless of their level of proficiency, first language (L1) or type of instruction (Meisuo 2000; Kang 2005; Mojica 2006; LLah & Jimenez-Catalán 2007; Rahman 2013; Kadiri, Igbokwe, Okebalama & Egbe 2016; Staples & Reppen 2016; Chanyoo 2018). Other lexical cohesive devices are generally underused. For example, Mojica (2006) found that 60 % of lexical repetition denoted resuming an identical item, and Kadiri et al. (2016) calculated that repetition made up 89 % of lexical cohesion. Participants in Naser and Almoisheer's (2018) study used either simple or complex lexical repetition. Whereas the percentage of simple repetition per text ranged from 48 to 100 in eight out of 60 cases, complex repetition was not identified in as many as 15 compositions. Other types of lexical repetition (following Hoey 1991), i.e. simple paraphrases, hyponymy, co-reference and superordinate, were not recorded in any of the compositions. Since texts with a higher density of lexical repetition were found to be more coherent, it was concluded that even simple lexical repetition may contribute to text quality. Finally, the authors speculate that the observed repetition of simple words points to non-native writers' attempts to compensate for insufficient vocabulary knowledge. This is not surprising because many non-native writers are still developing language learners to whom producing a longer stretch of written language presents a great challenge at many levels. In order to produce a cohesive text, they have to know which language elements (i.e. units of grammar and vocabulary) may be used to create a connected text. The fact that written texts generally require a more explicit and varied marking of lexical relations (cf. Tanskanen 2006) adds further to the problem. But, a higher level of language proficiency does not suffice, for L2 writers must also know which writing conventions and rhetorical traditions apply in the L2, and what role discourse and context have in selecting language elements (Olshtain & Celce-Murcia 2001).

Interestingly, repetition, especially simple, is the most frequently used type of lexical cohesion in L1 texts too, but its frequency varies depending on the text type and genre (Tanskanen 2006, Berzlánovich & Redeker 2012). However, L2 writers repeat the same words and phrases much more often than L1 writers who tend to vary the ways in which they resume items (Reynolds 1995; Kang 2005; Rahman 2013). For example, Rahman's (2013) comparison of L1 and L2 writers in English showed that while exact repetition makes up more than 90 % of all lexical cohesion devices in L2 essays, it accounts for only 30 % of lexical cohe-

sion devices in L1 essays. Rahman (2013) concluded that L1 and L2 use of cohesive devices differ in frequency, variety and control: L1 texts displayed a balanced use of variety of cohesive devices, while L2 texts showed overuse of some types (e.g. repetition and reference). Based on computational indices of lexical coreferentiality, Crossley and McNamara (2009) confirmed that L1 compositions are superior to L2 compositions in that they display more lexical coreferentiality as well as hypernymy[7] than L2 compositions and thus are more cohesive. The results indicate that the lexical measures related to cohesion used in the study differentiate between L1 and L2 compositions. There are studies, however, that found no differences in the use of repetition between L1 and L2 texts (Scarcella 1984, as cited in Ehrlich 1988).

3. The present study[8] – rationale and aims

For repetition to have a cohesive effect, it is crucial that the repeated item constructs a semantic relationship with the item it resumes. How this is realised is less important, for its form may vary a great deal. As the analysis of classifications of repetition has revealed, repetition involves anything from repeating a lexical item to using a general word, and not just "a number of things in between" (Halliday & Hasan 1976: 278), but also beyond.

As previously shown, most studies on lexical cohesion addressed the types and frequency of cohesive devices used, and explored differences across genres and between good and weak compositions, those written by native and non-native writers, or those written by writers in their L1 and L2. Despite an impressive number of studies, however, few generalisations are possible. This may be attributed to reasons related to the methodological decisions made by researchers (cf. Berzlánovich & Redeker 2012; Károly 2012). First, there is the question of the extent to which lexical cohesion can be theorised as an index of a good text. Second, studies conceptualised lexical cohesion following different taxonomies which were often adapted to their specific research purposes. Consequently, the

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7   Lexical coreferentiality involves "noun overlap between sentences, argument overlap between sentences, and stem overlap between sentences. Noun overlap measures how often a common noun is shared between two sentences. Argument overlap measures how often two sentences share nouns with common stems, while stem overlap measures how often a noun in one sentence shares a common stem with other word types in another sentence" (Crossley & McNamara 2009: 124). Hypernymy is "the number of levels a word has in a conceptual, taxonomic hierarchy" (ibid.: 125).

8   The present research was conducted as part of the *KohPiTekst* project: *Textual Coherence in Foreign Language Writing: Croatian, German, English, French and Hungarian in Comparison* (Research project IP-2016-06-5736 Croatian Science Foundation and Faculty of Humanities and Social Sciences, University of Osijek; 1 Mar 2017 - 29 Feb 2020).

authors understood and applied the key terminology in different ways. So, the term repetition (or reiteration) may have been restricted to same item repetition, or it may have been used as a superordinate including all types of lexical cohesive devices, from same item repetition to synonyms, hyponyms and similar categories. This difference surely affects the interpretation and comparison of the results across studies. Finally, a surprising number of studies failed to specify what unit(s) of analysis it focused on, although – judging by the examples provided as illustrations – they mostly only took into account the orthographic word. Notable exceptions are studies by Károly (2012), Staples and Reppen (2016), and studies based on computational indices generated by TAACO (e.g. Crossley & McNamara 2011; Crossley, Kyle & McNamara 2016), which systematically, but in very different ways, took into account linguistic elements beyond the word, such as compounds, phrases, clauses, idioms, or even sentences. These elements can also "enter into relationships of repetition" (Károly 2012: 96). Therefore, their inclusion in the analysis provides a more detailed portrait of "how repetition extends to lexico-grammatical patterns (rather than just lexical)" (Staples & Reppen 2016: 29).

The present study is an attempt to enhance the understanding of the linguistic elements, i.e. 'forms' which L2 writers use repeatedly in their attempt to create ties between components to produce a cohesive and coherent whole. A systematic analysis of repeated linguistic elements may yield insight into how L2 writers tackle formulating the text. Just as it is expected that a text written on a certain topic (such as the one set in the writing task used in this study) will contain lexical items related to that topic and that some lexical items will recur (cf. Adamzik 2016: 254), it can be expected that other forms will be repeated too.

The study additionally aims to compare compositions in two L2s (English and German), which, to the best of our knowledge, has not been undertaken before. Namely, just about all analyses reported in the studies cited in this article were conducted on English. When other languages were included, they were participants' L1. Because cohesive devices can be realised at morphological and syntactic level, etymologically and typologically diverse languages may be difficult to compare formally, but related languages, such as English and German, lend themselves to text linguistic comparisons which may provide useful information about phenomena related to repetition that may be shared or specific to a particular language (Tanskanen 2006).

The study aims to answer the following research questions:
  (1) What textual units are repeated in argumentative essays written by non-native users of English and of German?
  (2) Which elements of repeated textual units are varied?

(3) What differences in repetition of textual units can be observed between English and German argumentative essays?

4. Methods

4.1 Analysis

The study is conceived as an exploratory study which combines qualitative and quantitative procedures. This approach was chosen because of our strong conviction that the state of the art in research on cohesion, as has been previously shown, necessitates it. There is no existing taxonomy that could be used to investigate formal realisations of repetition.

The key notions are defined on the basis of existing theoretical propositions and previous research. Since the analysis sets out to identify which forms are repeated, it must include any and all possible textual units (Altmann & Köhler 2015) repeated in a text. To be identified as repetition, the repeated textual unit must share the form and information content of the resumed textual unit. In describing and categorizing identified textual units, the following grammatical categories are used: word class categories (we use the term 'word' to save space) and syntactic constituents (phrases and clauses). The repeated textual units are divided into full (those resuming a previously mentioned textual unit verbatim) and partial (those with some modifications) repetitions. Each partial repetition is then scrutinised to identify which aspect was modified.

The analysis was manually conducted by two researchers. All essays were read with a focus on the wording. Instances of repetitions of any textual units were marked and inspected to establish whether they are related. A third researcher was invited to help resolve any cases of divergence until full agreement was reached. In this way quantitative data about the distribution of repetitions across texts was generated.

4.2. Description of the corpus

The corpus for this study consisted of 60 argumentative essays, 30 in English and 30 in German, collected within *KohPiTekst*, a large scale project investigating text coherence and cohesion in five languages (see ft. 8). Essays were written by Croatian first-year university students majoring in English or German. All students had passed the B2 level (CEFR) of the Croatian state school-leaving exam in

English or German as the university entrance requirement. The English and German language study programmes are comparable in terms of courses and number of classes. Prior to the enrolment in the undergraduate study programmes, all students had learnt English or German in the secondary school as their first foreign language. The demographic data show that all students' L1 was Croatian and that none of them had spent more than a few weeks or months in a German or English speaking country, or was a native speaker of the language they studied, apart from one student of German who lived for several years in Germany as a child, but did not reach native-like competence in German.

Students were asked to write an essay of 200 to 230 words in which they had to present two points of view and express their opinion. The topic was formulated as "Life in the city" in English and "Das Leben in der Stadt" in German. Table 2 summarises the data of the essays. The texts analysed do not vary much in length or other indices. The only statistically significant difference between the two sets of essays was between the number of t-units[9] ($U = 135.5$, $p < 001$).

Table 2: Information on the essays analysed

	English	German
Number of essays	30	30
Word count	6,928	7,380
Average word count (Median/Mean/SD)	228.5/230.93/38.86	241/246/42.46
Word count range	146-311	188-337
Number of topics	235	245
Average number of topics (Median/Mean/SD)	8/8.4/2.17	9/9.4/2.77
Topics range	5-14	4-15
Number of t-units*	435	540
Average number of t-units (Median/Mean/SD)	15/15.5/3.93	20/20.8/4.41
t-units range	7-22	11-32

Data on topics and t-units taken from the KohPiTekst
* $U = 135.5$, $p < .001$, Mann-Whitney

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9   The term 't-unit' refers to smaller units of a text which correspond to a simple sentence, or a complex sentence containing one superordinate and one subordinate clause, or the main clause.

5. Results

5.1. Repetition of textual units

The analysis revealed that L2 writers in both languages repeat the following textual units: words, compounds, phrases, clauses, but also (parts of) clauses and sentences. Compounds were treated as a separate category because of their specific syntactic and semantic integrity. Compounds in English may feature spaces or hyphens between constituents, but may be orthographically realised as one unit, just like the German ones. In addition to these, there were instances of repeated wording larger than clauses. Since clause is the largest syntactic constituent, and for lack of a better option, we decided to classify such instances under the category of 'sentence' or 'part of sentence' (see table 6 for examples).

Table 3 shows the final categorisation of repeated textual units and their frequency across texts in two languages. In both L2s, we observed predominant use of word repetition and many phrase repetitions. In English, smaller units were usually repeated without variation, units above the phrase level were usually repeated with some variation. However, all types of units were more frequently used with no variation.

Table 3: Frequencies of repeated textual units

Type of unit	No variation		Variation		Total	
	English	German	English	German	English	German
clause/part of clause	12	20	19	7	31	27
compound	6	49	8	17	14	66
sentence/part of sentence	3	12	7	6	10	18
phrase	100	295	72	34	172	329
word	467	460	113	26	580	486
	588	836	219	90	807	926

Word class categories included nouns, verbs, adjectives, adverbs and pronouns. In fact, texts displayed a noteworthy number of repeated pronouns. It must be noted that the cases in which pronouns were used as a means of substitution/ reference were not included in the count, i.e. only the cases in which pronouns are actually repeated (and thus form a cohesive tie) were taken into consideration. Most frequently, these were generic uses of *you, some, I, everyone, we, they, one, nothing* in English, and of *man*, *sie, du*, *wir*, *jemand*, *alle*, *ich* in German. The data in Table 4 show that pronouns used in a generic sense to denote people are frequent in German texts and account for 36 % of word repetitions. In English texts, they account for 15 % of word repetitions. The most frequent word repetitions in both subcorpora (58 % in English and 44 % in German texts) refer

to nouns. Verbs are similarly frequent in both groups. One point of difference refers to the use of adjective repetition: while they make up 12 % of word repetitions in English texts, they account for only 3 % of word repetitions in German texts.

Table 4: Frequencies of repetition of word class categories

		Adjective	Adverb	Noun	Pronoun	Verb	Total
English texts	frequency	72	18	334	85	71	580
	percentage	12.4	3.1	57.6	14.7	12.2	100
German texts	frequency	14	15	215	175	67	486
	percentage	2.9	3.1	44.2	36.0	13.8	100

The category of phrases was further subdivided into noun phrases, adjective phrases, adverb phrases and prepositional phrases. Table 5 provides data on the repetitions of different phrase types. Noun phrases are the most frequent. However, prepositional phrases are very frequent as well: they make up 46 % of phrase repetitions in German texts and 21 % of phrase repetitions in English texts.

Table 5: Frequencies of repetition of phrase types

		Phrase type				
		Adjective phrase	Adverb phrase	Noun phrase	Prepositional phrase	Total
English texts	frequency	3	1	132	36	172
	percentage	1.7	0.6	76.7	20.9	100
German texts	frequency	4	1	174	150	329
	percentage	1.2	0.3	52.9	45.6	100

5.2 Analysis of variation

After establishing which textual units were partially repeated, we examined the modifications in detail. Table 6 contains the categories, descriptions and examples of partial repetition.

Table 6: Types of partially repeated textual units[10]

Variation type	Modified aspect	Description	Example
Variation involving word formation process	Prefix	Prefix added, omitted or changed without word class change	*disadvantages of living in the city > advantages of living in the city* *Vorteile > Nachteile*
	Word (sub)class	Word (sub)class change by implicit or explicit derivation	*life > live* *rühiges > Rühe*
Variation involving inflection	Number	Change of noun number	*cities > city* *das Dorf > die Dörfer*
	Degree	Change of adjective or adverb degree of comparison (i.e. a comparative form follows the base form of an adjective)	*easy > easier* *interessant > interessanter*
Variation involving syntactic change	Type of unit	Type of unit of the original element is changed (e.g. from noun phrase to infinitive clause)	*life in the city > live in the city* *das Leben in der Stadt > in der Stadt zu leben*
	Part of clause	One part of clause is repeated, the rest is changed	*if you are a person that > if you are a kind of person that* *wenn wir in einer Stadt leben > wenn man in der Stadt lebt*
	Part of sentence	One part of sentence is repeated, the rest is changed	*will be discussed > will be shown and discussed* *Es ist schöner, auf dem Land zu leben. > Es ist schöner, eine Familie ausserhalb der Stadt aufzuziehen.*

It is interesting to observe variation in the case of compound repetition. Of 14 instances of compound repetition in English, there were 8 variations. In 5 cases,

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10   Original wording by participants, including errors, was kept in all examples.

the variation involved the change of the type of unit (e.g. using a sentence to produce a compound: *The air is polluted > air pollution*). There were 3 examples of one compound constituent replacing another (e.g. *air pollution > noise pollution*).

Of 66 instances of compound repetition in German, there were 17 variations. In 10 cases, a simple word was added to another simple word thus forming a compound (*Spaß > Spaßmöglichkeiten, Leben > Lebensstil*). In 4 cases, a type of unit was changed (e.g. using a noun phrase to produce a compound: *das Leben in der Stadt > Stadtleben*). One constituent was replaced by another in two cases (*Internet Empfang > WiFi Emfang*). In one instance the number of the compound was changed.

5.3 Differences in repetition between English and German texts

The quantitative results (tables 2-4) were subjected to statistical tests to determine whether the differences in the use of repetition between English and German texts are statistically significant. The results of the χ^2 tests indicated that students writing in German are more likely to repeat the same textual units than those writing in English, χ^2 (4, $N = 60$) = 97.097, $p < .01$. In contrast, English writers vary their repetition of all textual units but compounds more often than German writers, χ^2 (4, $N = 60$) = 27.948, $p < .01$. Next, the differences in the density of repetition with and without variation (per number of words, topics and t-units) was explored. Again, English writers modify elements of repeated textual units statistically significantly more often, whereas German writers tend to repeat textual units without variation more often, although only the difference in the density of repetition with no variation per word is statistically significant (Table 7).

Table 7: Mann-Whitney for differences in density of repetition (per number of words, t-units and topics)

Type of repetition	median (IR)		U	p
	English texts ($n = 30$)	German texts ($n = 30$)		
no variation per word	.083 (.07-.1)	.106 (.09-.13)	184	< .001
variation per word	.032 (.02-.04)	.007 (.002-.02)	112	< .001
no variation per topic	2.26 (1.56-3.14)	2.66 (2.18-4.02)	256.5	.063
variation per topic	.76 (.55-1.28)	.15 (.00-.50)	94.5	< .001
no variation per t-unit	1.36 (1.-1.58)	1.3 (1-1.57)	328	.533
variation per t-unit	.5 (.37-.57)	.1 (.000-.17)	45.5	< .001

IR = interquartile range

6. Discussion

The present study explored the use of repetition to create cohesion in texts produced by non-native writers in two L2s, English and German. It is assumed that repetition of linguistic material is a common and one of the key features of all texts because it helps readers perceive a text as a wholesome unit (Sinclair 1991; Martin 2001; Stubbs 2001). Thus, repetition can be a powerful writing strategy L2 writers can use to write a cohesive text. Indeed, the results showed that L2 writers employed repetition quite frequently. The majority of repetitions involved repetition of the same textual unit. This holds especially for the German texts, where a staggering 90 % of all repetitions were repetitions of the same linguistic material. In the English texts, this holds for more than 70 % of repetitions. If we look at the total number of repetitions, we can see that the average number of repetitions per text was 27 in English, and 31 in German. This is in line with a number of previous studies (cf. Rahman 2013). A frequent use of exact repetition is a feature of L2 texts (Reynolds 1995; Kang 2005; Rahman 2013), perhaps because repetition with variation requires higher levels of linguistic knowledge.

The repetitions with variation differed in the number of elements varied and in the type of variation. The majority of variations in both subsets of texts included variations of word form (number, word class), part of clause or sentence where one element was added, changed or omitted. The instances of less frequent variations included the degree of comparison, and changing more than one element of the textual unit.

A more detailed inspection of the repeated linguistic material revealed several strategies that L2 writers used to create cohesion. Firstly, the title of the writing was utilised as the source of repetition. For example, the title *Life in the city* was used to produce the following textual units: *life outside the city, life in the village, life in the suburbs, live in the city*. Another strategy for establishing cohesion was repetition of sentence initial elements. For example, the descriptions of advantages and disadvantages of living in the city in some sentences did not contain many cohesive devices, but the prepositional phrase *In der Stadt* was repeatedly used at sentence beginnings (sometimes even in the consecutive sentences), tying those sentences with each other. Repetition of a subject and a modal verb and the repetition of a subordinate conjunction and a subject were also frequently observed in the German texts. The examples of repeated material include *wo sie, man kann, weil man, du kannst, du brauchst, ob Landleben oder Stadtleben besser*. As can be seen, such repetitions affect a part of a sentence.

The frequent occurrence of repetition in the analysed texts may indicate that participants have acquired a sense of the positive impact of repetition. But since

repetition seems to be rarely formally taught as a stylistically and functionally desirable writing strategy (Averintseva et al. 2019), it might be a consequence of their having been exposed to a variety of texts in the course of their language learning. This is why we wonder whether they used repetition consciously, for the purpose of creating cohesive ties in the text, or strategically, to fulfil the task. A future study utilising think aloud protocols or interviews could probe this question and thus provide useful guidelines for teaching writing.

We found that English writers modified textual units more often. This may be attributed to higher levels of language proficiency or confidence in the use of the language. Lexical cohesion in general, and repetition in particular, requires knowledge of lexical patterns and relationships in the target language (Halliday & Mathiessen 2004). In other words, limited lexical repertoire may prevent L2 writers from establishing lexical cohesion, as previous research has shown (Meisuo 2000; Liu & Braire 2005). As German is morphologically and syntactically more complex than English, German L2 writers may refrain from attempting to modify linguistic material to avoid making errors.

There were some important issues that we had to address in the analysis. First of all, in some cases it was not easy to determine what textual unit was repeated, i.e. if an observed repetition should be classified as word/phrase/sentence repetition or pattern repetition. The phrase *das Leben auf dem Lande* preceded by *das Leben in der Stadt* might be viewed as repetition of a noun phrase with variation, but it might also be considered repetition of the pattern "det. + head noun + modifier PP". As has been shown earlier (cf. Table 1), different authors dealing with lexical cohesion looked at individual lexemes and whether they are repeated fully or partially. In addition, they may have mentioned that repeated patterns created cohesive ties between text parts. However, when there is a textual unit consisting of more than one word appearing for the second time and when it exhibits some kind of variation, the question arises whether this should be treated as repetition with variation or pattern repetition. Such cases need to be carefully scrutinised and discussed, as has been done in this study.

Another important issue was the role of identity of reference/function. Cohesion is generally thought of as text surface connections between parts of the text. As Halliday (2014: 645) stresses, "the cohesion need not depend on identity of reference", and only surface text identity is enough for establishing cohesion. It might be true, but our analysis seems to suggest that cohesion accompanied by identity of reference produces a stronger cohesive force. For example, in German texts the repetition of the sentence beginning *man kann* was frequently observed. But, not each instance of repetition of *man kann* had the same effect on the reader as far as cohesion is concerned. The connection between two text parts containing *man kann* was perceived as stronger when this textual unit had the same function,

i.e. when the same meaning of the modal verb *können* was activated. This implies that identity of reference/function should be taken into consideration in the analysis of repetitions.

Next, the distance between the repeated textual unit and the unit it presupposes seemed to have a varying effect. Occasionally, larger repeated textual units had quite a large distance between them, but the cohesive tie was still effective. However, there were cases where the distance had the opposite effect.

Finally, the prominence of the textual unit seemed to bear quite an importance: prominent units tend to be repeated more frequently and with large distances between the two elements, and still create cohesion. To illustrate, the concluding paragraph may contain repetition of textual units appearing in the introductory paragraph, thus establishing cohesion. So, it is a combination of different factors, or rather their interpretation that influences the strength of cohesion (Halliday & Hasan 1976: 31-33).

7. Conclusion

The present findings bear implications regarding the linguistic unit to be taken into consideration in the analysis of repetition, especially if it involves two languages. The fact that we took a broader perspective on formal realisations of repetition (i.e. textual units beyond the orthographical word), enabled us to reveal that the linguistic material which is repeated also involves compounds, phrases, clauses and even parts of sentences. In addition, we were able to identify specific differences between English and German texts. Both subgroups make ample use of repetition, but English L2 writers modify elements of textual units more often. The fact that German L2 writers shy away from introducing variation in the repeated textual units may be explained by their somewhat lower language proficiency, lack of self-confidence, or the fact that German has a more complex morpho-syntactical structure than English.

Some pedagogical implications may also be suggested. The approach to teaching cohesive devices, typically focusing on lists of functional connectives, often without any notice of semantic or syntactic constraints, has to be reconsidered (Widdowson 1978; Zamel 1983; Liu 2000; Bagarić Medve & Pavičić Takač 2013). A study on cohesive devices as indicators of the washback effect of the state school-leaving exam in English and German in Croatia found that "[t]he number of lexical cohesive devices decreased and at the same time the number of grammatical cohesive devices [especially those explicitly recommended in textbooks and exam materials] increased in the second generation in both languages" (Truck-Biljan 2019: 51). The change was attributed to the impact of the exam.

This further supports the view that teaching cohesive devices should involve a wider range of cohesive devices, including repetition, whose role in developing logical arguments and creating cohesive texts should be stressed. Repetition should be treated as a natural aspect of texts, and taught as a component of vocabulary (Mahlberg 2009) or grammar (Averintseva-Klisch et al. 2019). Such instruction should typically start from the text analysis and lead back to text production (Liu 2000; Harman 2013; Kuri & Doleschal 2016) in order to raise awareness of how repetition functions in discourse. Since even simplified texts lend themselves to such analysis (Crossley, Louwerse, McCarthy & McNamara 2007), it can be introduced in the curricula as soon as possible.

Unfortunately, textbooks rarely address repetition as a cohesive device (Averintseva-Klisch et al. 2019), and the literature on cohesion does not provide clear guidelines as to what type of repetition should be aimed for: while full repetition is rarely explicitly recommended (Hinkel 2004) and is often seen as problematic (McGee 2009), repetition with modification seems to be favoured (ibid.; Staples & Reppen 2016). Therefore, a pedagogical intervention would have to start with clarifying that the term repetition does not only refer to the reiteration of the same item, but is used as a superordinate term to cover the different types of repetition, and that it may include units beyond the orthographical word. Repetition types commonly dealt with only in terms of semantic description (e.g. synonyms, homonyms) or word formation (e.g. compounds) (Averintseva-Klisch et al. 2019) should also be addressed from the discourse point of view highlighting why and how they contribute to text quality.

To reword Halliday and Hasan's (1976) assertion, cohesion is about selecting two closely related textual units. Since it might not automatically emanate from high language proficiency, non-native writers need to learn how to do this efficiently in the L2. Although it is a complex and time-consuming task (Liu 2000; Mahlberg 2009), helping L2 writers increase the quality of the texts they produce might be worth every endeavour.

Our study is not without its limitations. Since it focused on the analysis of formal aspects of repetition, it did not address the quality of the cohesive ties. Future studies may define the strength associated with certain categories of textual units and thus provide information about how repetition of patterns (at word, phrase, clause and sentence level) help create a fluent text. We believe, for example, that phrase repetition may be stronger than word repetition, i.e. that, generally, pattern repetition might have a stronger effect. To gain a more comprehensive picture, other variables, such as the relationship between cohesion and identity of reference/function, or the distance between repetition and the textual unit it resumes as well as other types of cohesive devices may be included in the analysis, and correlated with indicators of text quality, or text cohesion and coherence.

A comparison with native speaker texts may also help highlight distinctive features of non-native texts. How the target language influences the way repetition is employed by non-native writers in other L2s may also be explored in future research.

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References

Adamzik, Kirsten (2016): *Textlinguistik: Grundlagen, Kontroversen, Perspektive* (2nd edition). Berlin, Boston: De Gruyter.

Altmann, Gabriel & Köhler, Reinhard (2015): *Forms and Degrees of Repetition in Texts: Detection and Analysis*. Berlin, Munich, Boston: De Gruyter.

Averintseva-Klisch, Maria (2013): *Textkohärenz*. Heidelberg: Universitätsverlag.

Averintseva-Klisch, Maria; Bryant, Doreen & Peschel, Corinna (2019): Referenzielle Kohärenz: Diskrepanz zwischen Theorie und Vermittlung. *Linguistik Online* 100: 7, 19-64.

Bagarić Medve, Vesna & Pavičić Takač, Višnja (2013): The influence of cohesion and coherence on text quality: A cross-linguistic study of foreign language learners' written production. In: Piechurska-Kuciel, Ewa & Szymanska-Czaplak, Elzbieta (eds.): *Language in Cognition and Affect*. Berlin, Heidelberg: Springer, 111-131.

Berzlánovich, Ildikó & Redeker, Gisela (2012): Genre-dependent interaction of coherence and lexical cohesion in written discourse. *Corpus Linguistics and Linguistic Theory* 8: 1, 183-208.

Brinker, Klaus (2001): *Linguistische Textanalyse. Eine Einführung in Grundbegriffe und Methoden*. Berlin: E. Schmidt.

Council of Europe (2001): *Common European Framework of Reference: Learning, Teaching, Assessment*. Cambridge: Cambridge University Press.

Chanyoo, Natthapong (2018): Cohesive devices and academic writing quality of Thai undergraduate students. *Journal of Language Teaching and Research* 9: 5, 994-1001.

Crossley, Scott; Kyle, Kristopher & McNamara, Danielle (2016): The tool for the automatic analysis of text cohesion (TAACO): Automatic assessment of local, global, and text cohesion. *Behavior Research Methods* 48: 4, 1227-1237.

Crossley, Scott; Louwerse, Max; McCarthy, Philip & McNamara, Danielle (2007): A linguistic analysis of simplified and authentic texts. *The Modern Language Journal* 91: 1, 15-30.

Crossley, Scott & McNamara, Danielle (2009): Computational assessment of lexical differences in L1 and L2 writing. *Journal of Second Language Writing* 18: 2, 119-135.

Crossley, Scott & McNamara, Danielle (2011): Shared features of L2 writing: Intergroup homogeneity and text classification. *Journal of Second Language Writing* 20: 4, 271-285.

de Beaugrande, Robert-Alain & Dressler, Wolfgang Ulrich (1981): *Einführung in die Textlinguistik*. Tübingen: Niemeyer.

Ehrlich, Susan (1988): Cohesive devices and discourse competence. *World Englishes* 7: 2, 111-118.

Flowerdew, John & Mahlberg, Michaela (2009): Introduction. In: Flowerdew, John & Mahlberg, Michaela (eds.): *Lexical Cohesion and Corpus Linguistics*. Amsterdam, Philadelphia: John Benjamins, 1-3.

Halliday, Michael A.K. (1994): *An Introduction to Functional Grammar*. London: Edward Arnold.

Halliday, Michael A.K. & Hasan, Ruqaija (1976): *Cohesion in English*. London: Longman.

Halliday, Michael A.K. & Matthiessen, Christian M.I.M. (2004): *An Introduction to Functional Grammar* (3rd edition). New York: Hodder Arnold.

Harman, Ruth (2013): Literary intertextuality in genre-based pedagogies: Building lexical cohesion in fifth-grade L2 writing. *Journal of Second Language Writing* 22, 125-140.

Hasan, Ruqaija (1984): Coherence and cohesive harmony. In: Flood, James (ed.): *Understanding reading comprehension.* Delaware: International Reading Association, 181-219.

Hinkel, Eli (2004): *Teaching Academic ESL Writing: Practical Techniques in Vocabulary and Grammar*. Mawah, New Jersey: Lawrence Erlbaum Associates.

Hoey, Michael (1991): *Patterns of Lexis in Text*. Oxford: Oxford University Press.

Hoey, Michael (1994): Patterns of lexis in narrative: a preliminary study. In: Tanskanen, Sanna-Kaisa & Wårvik, Brita (eds.): *Topics and Comments: Papers from the Discourse Project* (Anglicana Turkuensia 13). Turku: University of Turku, 1-40.

Kadiri, Goodluck C.; Igbokwe, Uche Lebechi; Okebalama, Udodirim Ngozi & Egbe, Cajetan Ikechukwu (2016): The use of lexical cohesion elements in the writing of ESL learners. *Research in Language* 14: 3, 221-234.

Kang, Jennifer Yusun (2005): Written narratives as an index of L2 competence in Korean EFL learners. *Journal of Second Language Writing* 14, 259-279.

Károly, Krisztina (2002): *Lexical Repetition in Text*. Frankfurt am Main: Peter Lang.

Kuri, Sonja & Doleschal, Ursula (2016): Zwölf Module für die Entwicklung von Textkompetenz in DaF/DaZ. Didaktische Anmerkungen für Unterrichtende. In: Perissutti, Anna-Maria; Kuri, Sonja & Doleschal, Ursula (eds.): *WRILAB2: A Didactical Approach to Develop Text Competence in L2*. Münster: LIT Verlag, 101-125.

Liu, Dilin (2000): Writing cohesion: Using content lexical ties in ESOL. *English Teaching Forum* 38: 1, 28-35.

LLah, María Pilar Agustín & Jimenez-Catalán, Rosa M. (2007): Lexical reiteration in EFL young learners' essays: Does it relate to the type of instruction? *International Journal of English Studies* 7: 2, 85-103.

Mahlberg, Michaela (2009): Lexical cohesion: Corpus linguistic theory and its application in English language teaching. In: Flowerdew, John & Mahlberg, Michaela (eds.): *Lexical Cohesion and Corpus Linguistics.* Amsterdam, Philadelphia: John Benjamins, 103-122.

Martin, James R. (1992): *English Text: System and Structure*. Philadelphia/Amsterdam: John Benjamins.

Martin, James R. (2001): Cohesion and texture. In: Schiffrin, Deborah; Tannen, Deborah & Hamilton, Heidi E. (eds.) (2001), 35-53.

McGee, Iain (2009): Traversing the lexical cohesion minefield. *ELT Journal* 63: 3, 212-220.

Meisuo, Zhang (2000): Cohesive features in the expository writing of undergraduates in two Chinese universities. *RELC Journal* 31: 1, 61-95.

Mojica, Leonisa A. (2006): Reiterations in ESL learners' academic papers: Do they contribute to lexical cohesiveness? *The Asia-Pacific Education Research* 15: 1, 105-125.

Morley, John (2009): Lexical cohesion and rhetorical structure. In: Flowerdew, John & Mahlberg, Michaela (eds.): *Lexical Cohesion and Corpus Linguistics*. Amsterdam, Philadelphia: John Benjamins, 5-22.

Naser, Mohammad & Almoisheer, Reem (2018): Lexical repetition and written text's unity from gender perspective: A case of languages and translation students at the University of Tabuk. *American Journal of Humanities and Social Sciences Research* 2: 3, 14-22.

Olshtain, Elite & Celce-Murcia, Marianne (2001): Discourse analysis and language teaching. In: Schiffrin, Deborah; Tannen, Deborah & Hamilton, Heidi E. (eds.) (2001), 707-724.

Rahman, Zuhair Abdul Amir Abdul (2013): The use of cohesive devices in descriptive writing by Omani student-teachers. *SAGE Open*, 1-10.

Reynolds, Dudley (1995): Repetition in nonnative speaker writing: More than quantity. *Studies in Second Language Acquisition* 17: 2, 185-209.

Schiffrin, Deborah; Tannen, Deborah & Hamilton, Heidi E. (eds.) (2001): *The Handbook of Discourse Analysis.* Malden, Oxford: Blackwell Publishers.

Sinclair, John (1991): *Corpus, Concordance, Collocation*. Oxford: Oxford University Press.

Sinclair, John (2004): *Trust the Text*. London: Routledge.

Staples, Shelley & Reppen, Randi (2016): Understanding first-year L2 writing: A lexico-grammatical analysis across L1s, genres, and language ratings. *Journal of Second Language Writing* 32: 1, 17-35.

Stubbs, Michael (2001): Computer-assisted text and corpus analysis: Lexical cohesion and communicative competence. In Schiffrin, Deborah; Tannen, Deborah & Hamilton, Heidi E. (eds.) (2001), 304-320.

Tanskanen, Sanna-Kaisa (2006): *Collaborating towards coherence: Lexical cohesion in English discourse*. Amsterdam: John Benjamins.

Truck-Biljan, Ninočka (2019): Cohesive Devices as Indicators of Test Washback. In: Brala-Vukanović, Marija & Memišević, Anita (eds.) *Language and its Effects*. Berlin: Peter Lang, 43-57.

van Dijk, Teun A. (1977): *Text and Context. Explorations in the Semantics and Pragmatics of Discourse*. New York: Longman.

Widdowson, Henry G. (1978): *Teaching Language as Communication*. London: Oxford University Press.

Zamel, Vivian (1983): Teaching those missing links in writing. *ELT Journal* 7: 1, 22-29.