

Discourse Community Collocations and L2 Writing Content

Mohammad Aghajanzadeh¹

ID: IJEAP-1706-1056

Javier Villoria Prieto²

Received: 17/04/2016 Accepted: 22/08/2016 Available online: 01/11/2016

Abstract

Taking the position that writing can be an important skill to foster knowledge building pedagogy, this article explores vocabulary as a supportive tool for this purpose. Having this in mind, a compilation of conceptually loaded vocabularies pertaining to seven discourse communities was developed, two of which were given to a group of L2 writers to investigate the implications of phraseology for content richness in foreign language writing. Sixty-six essays composed by 33 language learners preparing for two tests of English for General Academic Purposes, namely IELTS, and TOEFL, were investigated before and after receiving these concept-carrying lexical items. The study revealed that novice writers of academic essays could enhance the quality of essay content with the help of vocabularies which carry concepts and ideas. Retrospective interviews using stimulated recalls indicated that EFL writers had virtually no access to vocabularies needed for presenting most of concepts and believed that these lexical items would help them write better. So practical are these collocations for both making up content deficiency in academic writing and meanwhile assisting learners in broadening their topical knowledge scholarship that syllabus designers and EFL instructors can utilize them for higher pedagogical yields.

Keywords: content richness, corpus, discourse community collocations, L2 writing

1. Introduction

Knowledge building theory encourages important skills such as collaboration, learning how to learn, and knowledge construction in current educational contexts (Bereiter, 2002). The main accent of this theory that has been well embraced by L2 researchers specializing in children's literacy development and essay writing has fallen on learners' knowledge transformation through encouraging reasoned thinking and advancing what they already know (Fulkerson, 2005; Ryshine-pankova & Byrnes, 2013; Wells, 2000). The explicit pursuit of idea development brings pedagogy into much closer alignment with creative knowledge work as undertaken at professional levels (Scardamalia & Bereiter, 2006). This educational ambition will be encouraged through knowledge-building discourse by which students will show commitment to progress through discussions devoted to sharing information

¹ Payame Noor University, Iran, Email: teachingutopia@yahoo.com

² University of Granada, Email: villoria@ugr.es

and venting opinions, to seek common understanding, and to expand the base of accepted facts along with persuasion and evidence.

Two types of conceptual insufficiency are usually seen in students' writings: occasionally learners know the concept without any access to the respective word in L2 or they know neither the concept nor the lexical item. Schoonen, Snellings, Stevenson, and Van Gelderen (2009) propose Inhibition Hypothesis, which predicts that the high demands of linguistic dimensions of FL composition will draw upon resources and inhibit attention to conceptual or ideological perspectives of FL writing, such as content elaboration, monitoring and higher-order revisions. This scant attention has also been detected in writing teachers' discourse which suffers from a disproportionate share of *ideational talk*, by which teachers introduce concepts, ideas, and argument, compared with the dominant micro-episode *linguistic talk* dealing with vocabulary, grammar and other related features (Aghajanzadeh & Hemmati, 2014). These two studies simply insinuate scant resources available to novice L2 writers to enrich their writing with quality contents and creative ideas.

Sifting through several recent studies on lexical bundles (Chang & Kuo, 2011; Cortes, 2013; Eriksson, 2012; Flowerdew, 2013; Salazar, 2014), it can be understood that they are mostly handled as a medium to express concepts and ideas in a manner that is aligned with community expectations. In a study on interdisciplinary expressions used in 15 academic disciplines, for instance, it was concluded that they could help novice academic writers present clear forms and functions while writing several parts of research papers such as literature review, results, and discussion (Maswan, Kanamaru & Tajino, 2013). Text-forming and organizing properties of lexis have significantly been accommodated in L2 writing studies but the concept forming potential of lexical items keeps a low profile in publications.

As Schiro (2008) posits, education should allow a person to become a responsible member of the community through creating social awareness in specific and in general sense. Taking Freirean approach to language education into account, we can speculate that the most important criterion for the choice of lexical items is that they must have the potential to confront the social and cultural reality in which the people live. Vittoria (2014) finds this approach as a contemporary thrust of pedagogy inasmuch as learners will be prompted to discuss the existential situation of the vocabularies and their relationship with the reality they signify. Underscored in several distinguished studies for their importance to second language writing, lexical items have received scant attention for their knowledge-building potential. This study, thus, aims to explore whether vocabularies can be used as concept forming elements to fulfill this compelling vision for foreign language writing.

2. Literature

AgustínLlach (2011) sees a mutual relation between vocabulary and writing. Writing practice, on the one hand, contributes to the development of vocabulary. On the other hand, lexical performance is a good indicator of composition quality and communicative success of the text. Using a reference corpus to assess the collocational value of L2 bigrams in a longitudinal survey, Bestgen and Granger (2014) indicated the important role phraseology plays in L2 writing development: the more usage of collgrams which combine lexis and grammar, the higher quality of text produced by ESL writers. Given that a lexical corpus should be employed for academic English pedagogy, Flowerdew (2015) notes that students' level of language proficiency should be taken into account. She suggests that frequency account should not form the base of findings, and learnability and teachability of lexical items are more important factors that compilers should consider. Another significant matter which should be considered is the incredible range of topic variation in any corpus of texts and the choice of specific words that have received scant attention applied linguistics literature. Miller and Biber (2015) believe corpus studies should not solely pursue the goal of generalizing to a discourse domain. Internal representativeness achieved through measures of lexical richness in a corpus which rest on the significance of words should also be taken into account. These statements do not cast discredit on frequency-oriented corpus studies but emphasize that students can utilize a collection of lexical items when they are goal oriented and have potential usability in productive tasks such as composition writing. Hu and Nassaji (2016) in an investigation into implications of vocabulary learning tasks came to conclusion that learner engagement, instantiation, and productive generation included in *Technique Feature Analysis* (Nation & Webb, 2011) are important features which help vocabularies be learned better.

According to the revisited model of communicative competence put forward by Celce- Murcia (2007), context-specific lexis and collocational knowledge which are represented in terms of *formulaic competence* can be utilized to satisfy the basic requirement of *sociocultural competence*, i.e. background knowledge of discipline-specific readership and community custom. However, intercultural dialogue or communication and exchange of ideas should not be the ultimate purpose of language teaching - but something more than this: involvement in civil society beyond the local level should be what foreign language instructors pursue (Byram, 2008). Moral abilities, participatory capabilities, intellectual skills, and globally common core values and concerns, are to be represented in EFL materials for the purpose of citizenship education. Byram (2008) has a high opinion of constructive exchange of expressions to

gain international social cohesions. Seeing explicit interrelationship between social systems, vocabularies, and concepts, Loewenstein and Ocasio (2002) believe that organizational actions and changes are constituted and understood through vocabularies. Larson (2011), likewise, subscribes to the view that metaphorical structures used by environmentalists influence readers' perception of the environment and encourage their sustainable presence on earth. Given this functional significance of lexicons, recognized in the fields of management and ecology, they can raise readers' awareness of concerns articulated by several discourse communities. Swales (1990) adhering to social constructionism sees writing as a social act by which discourse communities with a set of public common goals have to manifest. A *discourse community* with a threshold level of members also has a specific set of vocabularies which its size is not fixed and gets larger by its member. It has been supported that frequent lexical combinations allow writers enter a given community, and connect appropriate use of these compounds to communicative competence in a field of study (Chen & Baker 2010; Hyland, 2008). Hyland and Tse (2007) do not have a high opinion of general academic vocabulary and argue that L2 students should engage with the actual use of lexical items in particular contexts.

The exchange of thoughts and insights between studies on English language learning and teaching composition has caused many experts to accept the interdisciplinary nature of writing in which social, cultural, linguistic, and cognitive faculties are seriously involved (Leki, 2003). We need to focus on academic vocabulary at college level since it affords students "a set of options to refer to those activities that characterize academic work, organize scientific discourse and build the rhetoric of academic texts" (Paquot, 2010, p. 28). Thonney (2011) believes community-oriented instruction is more likely to concentrate on reality of writing through engaging with social and communal issues, making decision, Planning, thinking critically, finding readership, and solving problems. Added to these skills is an awareness of discourse specificity and register distinctiveness of words in writing, noted by Schmitt (2010), which makes student writers communicatively competent in a discourse community.

Writing instructors may find themselves confronted upon considering above-mentioned features in writing instruction but Fulkerson (2005) claims that student writers "are presumed to be neither cognitively deficient nor linguistically impoverished"; thus, several discourse communities can be introduced to them (pp. 677-678). According to Swales (1990) *discourse community* is not confined to only academic disciplines but can cover public domains such as family or sport clubs which have shared conventions. Unlike *speech community*, it is not determined geographically and does not seek for

sociolinguistic grouping, but for sociorhetorical grouping instead that focuses on functionality through commonality of concerns and goals. Thonney (2011) sees no problem and believes, despite the variety, student had better be provided with general knowledge of academic discourse regarding disciplines. Harmon and Hedrick (2005) argue that content area vocabularies are labels for important concepts which ease the understanding of discipline-specific texts. L2 writing can be employed for shaping and expressing content as it taps into the extensive capacities of languages as semiotic systems (Biber, Gray, & Poonpon, 2011). Ryshina-Pankova and Byrnes (2013), impressed by systemic functional linguistics, go along with this view and find writing as a knowledge construction medium to develop advanced L2 literacy. In particular, in their study they found the positive implications of grammatical metaphor and evaluative expressions for the conceptual refiguration of content and the textual configuration of that content as knowledge.

Idea generation appears as an integral element of writing that is almost considered by cognitive models of this language skill (Galbraith, 2009). Despite receiving scant attention compared with other cognitive processes in writing, developing new ideas can contribute to writing success (Alamargot & Chanquoy, 2001; Galbraith, 2009). Crossley, Muldner, and McNamara (2016) assert that idea generation leads to higher quality texts in students' writing. This important part of writing is interpreted in terms of fluency, flexibility, elaboration, and originality. Fluency refers to the number of ideas but flexibility is accounted when ideas are different. Expansion and novelty of ideas are estimated through elaboration and originality respectively, as they clearly suggest.

... essays that contain greater elaboration and more ideas are scored more highly and that idea generation is best predicted by linguistic features related to the number of ideas, the uniqueness of ideas, and coherence between those ideas at the global level. (p.346)

Crossley and McNamara (2016) strongly claim that there has been no study yet to investigate the implications of linguistic features such as vocabulary for idea generation in writing. All things considered, this study aimed to develop a lexical compilation to meet this importantly perceived need in language teaching and learning and consequently see its effects on quality of content delivered in foreign language writing.

3. Method

The present study was conducted in two phases: the first one was germane to developing the lexical compilation associated with conceptual collocations; and in the second phase writing quality of a group of EFL writers who received a limited set of collocations was investigated.

3.1 Discourse Community Collocation Compilation

The compilation included 996 collocations related to seven subject areas: health, crime, the environment, education, family and social life, media and entertainment, and work and business. Interestingly, 981 of them were two-word bundles. General interest magazines, mobile news applications such as News Digest and Play Newsstand were the main sources of collection. Some vocabularies may seem subject-specific but they are a part of social discourse appearing as a conventional variety in public discourse areas such as general interest magazines. The entries of advanced English dictionaries were also looked up for nouns which shared certain conceptual and collocational properties. They were also used to testify the suitability of words for the collection because two criteria had to carefully be satisfied to eventually include the lexical items in the compilation: First, they had to be in the noun category of dictionary entries. Second, they had to have no specific labels such as technical, idiom, and colloquial.

To have a better understanding of the vocabulary compilation, two important issues should be noted: Firstly, among many classifications provided for lexical bundles the collection built up for the current study can be sorted into *topic*, one of five subcategorizations of research-oriented bundles, proposed by Hyland (2008). However, this subcategorization merely deals with technical terms and, as Salazar (2014) notes; its application is confined to research objects and procedures. Nation (2001) subscribes to the view that there are degrees of 'technicalness' depending on how limited a word is to a specific area. Secondly, the compilation for the current study was not developed in regard to frequency and semantic opacity-which are two typical features considered for lexical bundles studies- and discipline or subject specificity, which is the main criterion for content vocabularies in content based instruction. This amounts to saying that the pedagogical function of two-word vocabularies in carrying ideas and concepts was the only criterion to be met for compiling the intended lexical items and no specific model was taken into account for this purpose.

Collocations have been seen as a group of words that belong together. Some of them are common occurrence of some words but others shape a single unit whose meaning cannot be clearly understood by its components (Nation, 2005). This definition best suffices to consider the vocabularies of the collection as discourse communities collocations (DCCs), which is an umbrella term going beyond any specifications such as technical or academic vocabularies. It should be noted that these vocabularies are distinct from other collocations as the pivot and collocates cannot be easily distinguished and both parts carry a concept within a sentence.

3.2 Experiment

Thirty-three Iranian language learners who intended to sit for English proficiency tests, namely IELTS and TOEFL, were the participants of the study. They were studying academic English in two separate language institutes which had accommodated them at B2 level of CEFR. They were typically supposed to write two essays per week. Sixty-six essays of them (two essays of every participant) on two issues (family and social life and the environment) were collected for pre-test rating. It is worthy of note that the average score of two essays for each participant was considered for data analysis. Accordingly, they received respective discourse community collocations (DCCs) for further comparative analysis (See Appendix A). Every vocabulary was provided in English sentences accompanied by Persian translation prior to the writing session. All attempts were made to answer the formulated research question: Do L2 learners deliver richer content in their English academic essays through employing discourse community collocations? Consequently, the following null hypothesis was posed: There is not any significant difference in content quality of essays written before and after usage of discourse community collocations.

To draw a robust conclusion it was decided to employ two different rating scales in which content is represented differently. Content knowledge as a major component of task representation was the only assessment criterion. Two raters with an interrater reliability of .87, estimated through Cronbach Alpha, were asked to compare the quality of content student writers set forth before and after studying discourse community collocations. This variable was rated from 1 to 4 according to the scoring rubric developed by Eckstein, Chariton, and McCollum (2011). In their rubric content embodies:

1-an effective statement of purpose that is argumentative, not descriptive

2-verifiable, current, and relevant details

3-insightful commentary

4-well-developed ideas for the fully understood issue

ESL Composition Profile, developed by Jacob et al. (1981), was used as another scoring rubric by which content is scored according to knowledge of writers, significance and authenticity of ideas, development of thesis, and relevance. It is worthy of note that this assessment tool was also employed to know the degree of the effect DCCs had on other writing variables as a secondary concern.

Language learners receiving the intended vocabularies for writing improvement underwent a retrospective interview using stimulated recalls. The semi-structured interview protocol developed by the researchers originally included eight open questions which shrank to five major questions: a) Had you

known the concept before vocabularies were given to you? b) Had you known the concept but not the word? c) Did they help you organize your thoughts with interesting topic sentences? d) Did they help you extend your arguments in writing? e) Did they help you extend your wording length? Students were debriefed on discourse community collocations of two subject matters they had used in their essays and their answers were accordingly coded and presented in percentage. Students were asked to express their opinions about DCCs used in their own essays for the first two questions but other three questions were responded generally.

4. Results

In the experimental phase, the effect of DCCs on content quality in students' essays came under close examination through two different writing assessment scales. Table 1 shows the content score mean rise from 1.8 to 2.4 after introducing DCCs. T-test applied to two paired samples proved the rejection of null hypothesis and revealed that there was a significant difference in content quality of essays written before and after usage of discourse community collocations (Sig.<0.05).

It should be added that the average number of DCCs in two essays was 6.3, ranging from 2 to 10.

Table 1

T Test: Two Paired Samples

SUMMARY		Alpha	0.05	Hyp Mean	0			
Groups	Count	Mean	StdDev	Std Err	t	df	Cohen d	Effect r
Group 1	33	1.8636 36	0.5042 43					
Group 2	33	2.4696 97	0.4319 18					
Difference	33	- 0.6060 6	0.5117	0.0890 76	- 6.8038 9	32	1.1844 06	0.7689 46

T TEST

	P-value	t-crit	lower	upper	sig
One Tail	5.41E-08	1.6938 89			yes
Two Tail	1.08E-07	2.0369 33	- 0.7875	- 0.4246	yes

As mentioned earlier, in addition to an academic writing assessment rubric, an essay writing assessment rubric generally used in EFL and ESL settings was used to draw a firm conclusion regarding the effectiveness of DCCs. However, other variables of the assessment rubric were also investigated to see through their change after students used the collocations in their writing. As Table 2 shows, Multivariate Paired Sample Hotelling's T-Square using Real Statistics Software Pack revealed that there was not any significant difference in overall writing scores of the group before and after receiving the collocations ($F=2.8$, $Sig.>0.05$).

Table 2
Paired Sample Hotelling's T-Square

N	df1	df2	F	T2	α	P-value
33	5	28	2.82	17.34	.05	.073

However, once inspected one by one independently, all variables except *content* proved unchanged. As table 3 shows, *content* significantly improved to mean score 23.5 from 18.4 ($Sig.>0.05$).

Table 3
Multivariate Extension of Hotelling's T-Square

Variables	Mean		T2	Sig.
	Pre	Post		
Content	18.4	23.5	8.12	.001
Organization	13.2	13.5	1.81	.061
Vocabulary	13.3	13.2	.93	.092
Language use	17.8	17.7	.67	.234
Mechanics	4.4	4.2	.13	.583

It is interesting to note that two new DCCs (*electronic piracy* and *pamper holiday*) were detected in students' writing which shows the dynamic nature of this lexical compilation.

Each learner was asked to answer five questions regarding vocabularies they used from the collection. Excerpts 1 and 2 show the positive role served by DCCs in students' writing in that they found them useful in developing new ideas and extending the content.

Excerpt 1

I knew half of concepts and ideas but I had 30 per cent of the phrases in English. I could make better ideas by them. I think some of them are difficult to understand or memorize even in Persian and need explanations to be remembered better. We can write more because ideas are ready. Best of all, we can simply show that we can write more academically with new ideas which are not similar to others.

Excerpt 2

Some concepts were really interesting. Many of them were greek to me, about 70 per cent. So I didn't know the words too. Honestly, I learned several new things. They helped me a lot for better opinions I never had before. I could write much better topic sentences that our teacher always emphasize.

Despite employing a varied degree of DCCs, all 33 participants perceived them as a helping strategy to cope with serious writing setbacks. Detailed results of five questions related to stimulated recalls have been shown in Table 4.

Table 4

The average percentage for five questions of the interview

	Knowing the concepts	Knowing the concepts but not knowing the word	Organization of thoughts with good topic sentences	Extension of argument	Wording length
	81	86	80	75	55

Overall 81 percent of concepts were familiar to student writers but 86 per cent of them were *wordless* for them before having access to DCCs. Seventy five per cent of participants found these vocabularies beneficial for supporting the topic sentences or extension of arguments. Comparatively, more students (80 %) found DCCs useful when it came to their role in fluent presentation of content through creative topic sentences. About half of students had a high

opinion of DCCs for their positive effect on essay length. In a word, they could write more when they had concept generators words at their disposal.

5. Discussion

The vocabulary collection compiled for the current study aimed to build a bridge between word knowledge and world knowledge, which is considered as an integral component of intercultural communicative competence (Lambert, 1994). This statement may conflict with what those who favor a quantitative approach to lexical studies argue for. Brezina and Gablasova (2015), say, shy away from developing a corpus for the purpose of developing new ideas for speaking and writing on the pretext of rapid changes brought by modernity that may hinder identification of necessary ideas. However, it should be noted that highly frequent collocations which carry only linguistic functions cannot guarantee the quality of productive language skills. Thus, there was a need to develop a compilation or, more professionally, a corpus to help language learners broaden their lexical scholarship through conceptual understanding of their perceived social reality.

The present study revealed that the language learners were almost conceptually aware but lexically under-resourced. Provided with discourse community collocations of the environment and family and social life, student writers could have access to vocabularies related to concepts of today's life and concerns. Apart from vocabulary learning, they could broaden the world knowledge scope through DCCs. He and Shi (2012) argue that the prompt that need specific topical knowledge can be challenging for L2 writers in terms of quality and quantity of contents. The interview cast light on the pressing need for these lexical bundles inasmuch as students expressed no reservation about their constructive implications for writing improvement in terms of content richness, organization, and wording length. It was observed students added two new collocations to the collection that suggests not only the dynamicity of the world is changing but also the heuristic faculty of learners when they are exposed to supportive materials. Upon learning vocabularies of specific community domain, students can raise their topical knowledge, which its role in foreign language writing appears crucial. This type of lexical sophistication may not lead to idea generation only when used in writing; accessibility and awareness of these collocations may also contribute to ideas development.

Kramersch (2013) asserts cultural materials in ELT have been affected by the globalized geopolitical landscape of 21st century which encourages common values, interests, and practices which unite members of several communities. This postmodernist approach to teaching culture engages students as participants who will not lose their identity but will experience social reality and see culture as a nation-free construct. Taking account of this approach,

Wierzbicka (1992) believes that languages include lexical items which are related to shared social reality and moral values, and guiding principles and are central to human identity and civilization. These human concepts universals run contrary to ethnocentrism which seeks for cultural superiority. All things considered, vocabulary can be an integral component of language teaching to raise awareness of social reality and globally shared praxis.

The findings of this research have significant implications for writing practice in that language learners could be taught writing strategies intended to raise idea development. Use of sophisticated words, highly recommended by Crossly et al. (2016) as one of the practical one to create new ideas in writing caused the essays to be judged as higher quality texts. It should be noted that as discourse community collocations bear close relation to world knowledge it may defy detailed assessment; all the more so because human raters cannot always develop reliable ratings on lexical items which are semantically identified in context (Crossley, Salsbury & McNemara, 2016). Notwithstanding this difficulty, instructors can give feedback on DCCs either in writing conferences or in written comments so that student writers will appreciate their significance in writing.

6. Conclusion

The essence of the present study was distilled from social constructionism to link vocabularies up with foreign language writing. A collection of discourse community collocations was compiled to find out their effectiveness in content richness of L2 essays. They proved useful from participants' vantage point and could also assist them in writing better. These conceptually loaded terms, which carry and project concepts and ideas, may be considered as a new category of lexical knowledge or productive lexical richness, at the very least. This type of collocation could afford student writers a concomitant opportunity of an introduction to discourse communities and global citizenship. When 21st century language learners are believed to "think globally, act locally", learning such words can be a useful strategy by which language learners can make their way to ownership of their learning and hold global citizenship in the foreign language classroom. Global citizenship education helps students reflect upon globally shared values and develop core skills through membership in a wider global community. Davies, Evans, and Reid (2005) encourage reflective education which prompts learners to give global obsessions thoughtful consideration. Global issues such human rights, poverty, and eco-unfriendly conduct can evoke a sense of solidarity and enrich the educational context with participatory skills and knowledge. Peaty (2010) insists on using global issues or acquiring sufficient knowledge of them in EFL to practice global citizenship. Hence it can be maintained that DCCs help students *write to learn* as well as

learning to write. They can be of great significance to operationally make the language classroom a meaningful venue to enhance cultural understanding of globally shared issues which has been emphasized by researchers (Borghetti, 2011; Moeller & Faltin Osborn, 2014; Witte, 2011).

Several suggestions can be offered, provided that the interest in discourse community collocations grows into a wider area of research and pedagogy especially by a corpus study. From a teaching perspective, form-focused reading and listening activities can spur students on to learning rich lexical items authentically and, in consequence, they can employ them in their writing. It is likely that DCCs accompanied by language tasks will motivate students to use them better. What is more, disproportionate presentation of facts and opinions can be a potential area of research by which researchers can look into whether DCCs can push students to use more facts and evidence in their writing as they may resort to authentic materials to understand and employ them more efficiently. Additionally, the small sample size of present study defied a correlational investigation or a truly experimental study, which can be a future concern to know whether the number of discourse community collocations positively correlate with or affect the quality of content and argument academic writers set out for their essays.

References

- Aghajanzadeh Kiasi, M., & Hemmati, F. (2014). The importance of 'teacher talk' in writing. *PortaLinguarum*, 22, 95-108.
- Alamargot, D., & Fayol, M. (2009). Modelling the development of written composition. In R. Beard, D. Myhill, J. Riley, & M. Nystrand (Eds.), *The Sage handbook of writing development* (pp. 23-47). Thousand Oaks, CA: Sage.
- Agustín Llach, M. P. (2011). *Lexical errors and accuracy in foreign language writing*. Bristol: Multilingual Matters.
- Anderson, J. M. (1996). Historical linguistics. In K. Malmkjaer (Ed.), *The linguistics encyclopedia* (pp. 189-216). London, UK: Routledge.
- Bereiter, C. (2002). *Education and mind in the knowledge age*. Mahwah, NJ: Lawrence Erlbaum.
- Bestgen, Y., & Granger, S. (2014). Quantifying the development of phraseological competence in L2 English writing: An automated

approach. *Journal of Second Language Writing*, 26, 28-41. doi: 10.1016/j.jslw.2014.09.004

Biber, D., Gray, B., & Poonpon, K. (2011). Should we use characteristics of conversation to measure grammatical complexity in L2 writing development? *TESOL Quarterly*, 45, 5–35. doi: 10.5054/tq.2011.244483

Brezina, V., & Gablasova, D. (2015). Is there a core general vocabulary? Introducing the new general service list. *Applied Linguistics*, 36 (1), 1-22.

Borghetti, C. (2011). How to teach it? Proposal for a methodological model of intercultural competence. In A. Witte & T. Harden (Eds.), *Intercultural competence: Concepts, challenges, evaluations* (pp. 141–159). Bern, Switzerland: Peter Lang.

Byram, M. (2008). *From foreign language education to education for intercultural citizenship: Essays and reflections*. Clevedon: Multilingual Matters.

Celce-Murcia M. (2007). Rethinking the role of communicative competence in language teaching. In Alcón Soler E & Safont Jordà MP (Eds.). *Intercultural language use and language learning* (pp. 41–57). Dordrecht: Springer.

Chang, C.-F. & C.-H. Kuo (2011). A corpus-based approach to online materials development for writing research articles. *English for Specific Purposes*, 30, 222–234.

Chen, Y. & Baker, P. (2010). Lexical bundles in L1 and L2 academic writing. *Language Learning and Technology*, 14(2), 30–49.

Cortes, V. (2013). The purpose of this study is to: Connecting lexical bundles and moves in research article introductions. *Journal of English for Academic Purposes*, 12 (1), 33–43.

Crossley, S. A., & McNamara, D. S. (2016). Say more and be more coherent: How text elaboration and cohesion can increase writing quality. *Journal of Writing Research*, 7(3), 351-370.

- Crossley, S. A., Muldner, K., & McNamara, D. S. (2016). Idea generation in student writing: Computational assessments and links to successful writing. *Written Communication*, 33(3), 328–354. doi: 10.1177/0741088316650178
- Crossley, S. A., Salsbury, T., & McNemara, D. S. (2015). Assessing lexical proficiency using analytic ratings: A case for collocation. *Applied Linguistics*, 36(5), 1–22. doi: 10.1093/applin/amt056
- Davies, I., Evans, M., & Reid, A. (2005). Globalising citizenship education? A critique of ‘global education’ and ‘citizenship education’. *British Journal of Educational Studies*, 53(1), 66–89. doi: 10.1111/j.1467-8527.2005.00284.x
- Eckstein, G., Chariton, J., & McCollum, R. M. (2011). Multi-draft composing: An iterative model for academic argument writing. *Journal of English for Academic Purposes*, 10, 162–172.
- Eriksson, A. (2012). Pedagogical perspectives on bundles: Teaching bundles to doctoral students of biochemistry. In J. Thomas & A. Boulton (eds.), *Input, process and product: Developments in teaching and language corpora* (pp. 195–211). Brno, Czech Rep.: Masaryk University Press.
- Flowerdew, L. (2015). Corpus-based research and pedagogy in EAP: From lexis to genre. *Language Teaching*, 48(1), 99 – 116. doi: 10.1017/S0261444813000037
- Fulkerson, R. (2005). Composition at the turn of the twenty-first Century. *College Composition and Communication*, 56(4), 654–687.
- Galbraith, D. (2009). Writing as discovery. *Teaching and Learning Writing*, 2(6), 5–26. doi: 10.1348/978185409X421129
- Harmon, J., & Hedrick, W. (2005). Research on vocabulary instruction in the content areas: Implication for struggling readers. *Reading & Writing Quarterly*, 21, 261–280.
- He, L., & Shi, L. (2012). Topical knowledge and ESL writing. *Language Testing*, 29(3), 443–464.

- Hu, H. M. & Nassaji, H. (2016). Effective vocabulary learning tasks: Involvement load hypothesis versus technique feature analysis. *System*, 56, 28-39. doi: 10.1016/j.system.2015.11.001
- Hyland, K. (2008). As can be seen: Lexical bundles and disciplinary variation. *English for Specific Purposes*, 27(1), 4–21.
- Hyland, K. & Tse, P. (2007). Is there an “academic vocabulary”? *TESOL Quarterly*, 41, 235-253.
- Flowerdew, L. (2013). Corpus-based research and pedagogy in EAP: From lexis to genre. *Language Teaching*, 26, 1–18.
- Jacobs, H. L., Zinkgraf, S. A., Wormuth, D. R., Hartfiel, V. F., & Hughey, J. B. (1981). *Testing ESL composition: A practical approach*. Rowley, MA: Newbury House.
- Kramsch, C. (2013). Culture in foreign language teaching. *Iranian Journal of Language Teaching Research*, 1 (1), 57-78.
- Larson, B. (2011). *Metaphors for environmental sustainability: Redefining our relationship with nature*. New Haven: Yale University Press.
- Leki, I. (2003). Coda: Pushing L2 writing research. *Journal of Second Language Writing*, 12, 103–105.
- Lambert, R. D. (Ed.). (1994). *Educational exchange and global competence*. New York: Council on International Educational Exchange.
- Loewenstein, J., & Ocasio, W. (2002). Vocabularies of organizing: How language links culture, cognition, and action in organizations. Paper presented at the 2002 meeting of the Academy of Management, Seattle, WA.
- Maswan, S., Kanamaru, T., & Tajino, A. (2013). Analyzing the journal corpus data on English expressions across discipline. *The Journal of ASIA TEFL*, 10 (4), 71-96.
- Miller, D., & Biber, D. (2015). Evaluating reliability in quantitative vocabulary studies: The influence of corpus design and composition. *International Journal of Corpus Linguistics*, 20 (1), 30–53. doi: 10.1075/ijcl.20.1.02mil

- Moeller, A. J., & Faltin Osborn, S. R. (2014). A pragmatist perspective on building intercultural communicative competency: From theory to classroom practice. *Foreign Language Annals*, 47(4), 669–683. doi: 10.1111/flan.12115
- Nation, I.S.P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Nation, P. (2005). Teaching vocabulary. *Asian EFL Journal*, 7 (3), 47-54.
- Nation, P., & Webb, S. (2011). *Researching and analyzing vocabulary*. Boston: Heinle.
- Paquot, M. (2010). *Academic vocabulary in learner writing*. New York: Continuum.
- Peaty, D. (2010). *You, me and the world: A course in communicative English for global citizenship*. Tokyo: Kinseido.
- Ryshina-Pankova, M., & Byrnes, H. (2013). Writing as learning to know: Tracing knowledge construction in L2 German compositions. *Journal of Second Language Writing*, 22 (2), 179–197. doi: 10.1016/j.jslw.2013.03.009
- Salazar, D. (2014). *Lexical bundles in native and non-native scientific writing: Applying a corpus-based study to language teaching*. Amsterdam: John Benjamins.
- Scardamalia, M., & Bereiter, C. (2006). Knowledge building: Theory, pedagogy, and technology. In K. Sawyer (Ed.), *Cambridge handbook of the learning sciences* (pp. 97-118). New York: Cambridge University Press.
- Schiro, M. (2008). *Curriculum theory: Conflicting visions and enduring concerns*. LA: Sage Publication.
- Schmitt, N. (2010). *Researching vocabulary: A vocabulary research manual*. Basingstoke: Palgrave Macmillan.
- Schoonen, R., Snellings, P., Stevenson, M., & van Gelderen, A. (2009). Towards a blueprint of the foreign language writer: The linguistic and cognitive demands of foreign language writing. In R. M. Manchón (Ed.), *Writing in foreign language contexts: Learning, teaching, and research* (pp. 77-101). Clevedon, UK: Multilingual Matters.
- Swales, J. M. (1990). *Genre analysis: English in academic and research settings*. Cambridge: Cambridge University Press.

- Thonney, T. (2011). Teaching the conventions of academic discourse. *Teaching English in the Two-Year College*, 38 (4), 347-362.
- Vittoria, P. (2014). Dialogue in critical pedagogy: Generative word as counter-hegemonic action. *International Journal of Educational Policies*, 8(2), 103 -114.
- Wells, G. (2000). Dialogic inquiry in education: Building on the legacy of Vygotsky. In C. Lee & P. Smagorinsky (Eds.), *Vygotskian perspectives on literary research* (pp. 51-85). New York: Cambridge University Press.
- Wierzbicka, A. (1992). *Semantics, culture, and cognition: Universal human concepts in culture-specific configurations*. New York: Oxford University Press.
- Witte, A. (2011). On the teachability and learnability of intercultural competence: Developing facets of the “inter.” In A. Witte & T. Harden (Eds.), *Intercultural competence: Concepts, challenges, evaluations* (pp. 89–107). Bern, Switzerland: Peter Lang.

Appendix A

Carbon footprint
Dust bowl
Water footprint
E-cycling
Food miles
Desert greening
Emission standards
Green tax
Game reserve
Endangered species
Game warden
Landfill gas
Organic agriculture
Urban renewal
Rainwater harvesting
Urban planning
Air traffic
Green power
Light pollution
Eco-tourism
Fur farming
Nature reserve
Ethical consumerism
Whales stranding
Captive breeding
Greenhouse effect
Global dimming
Food security
Dump sites
Carbon credit
Environment movement
Emission camp
Waste management
Growth overfishing
Test ban
Forest fire
Alternative energy
Alternative transportation
Forest clearance
Traffic calming
Biodiversity
Renewable energy
Virgin forest

Car pooling
Oil spills
Ozone depletion
Over-grazing
Global warming
Urban sprawl
Concrete jungle
Refuse disposal
Heavy industry
Preservation order
Conspicuous consumption
Acid rain
Crop rotation
Green belt
Fuel ration
Car tax
Carbon tax
Carbon sink
Wildlife safari
White flight
Critical thinking
Life choice
Coffee morning
Midnight feast
Rush hour
Formative years
Book crossing
Sandwich generation
Quality time
Retail therapy
Midlife crisis
Dating agency
Class consciousness
Pop culture
Simple living
Color blind
Sedentary lifestyle
Boomerang child
Ambiguity tolerance
Video snacking
Surrogate mother
Kiddie cam

Herd instinct
Faith community
Camera shy
Ivory tower
Tower of strength
Retirement home
The purse strings
Captive audience
Marriage guidance
Power dressing
Video diary
Love affair
Maternal leave
Fire drill
Armchair travelling
Community policing
Online activism
Rent rebate
Social climber
Finishing school
Street children
Digital divide
Night spot
House-warming
Discretionary income
Living standards
Speed dating
Compulsive shopping
Maternal leave
Culture shock
Immigration detention
Glass ceiling
Fashion victim
Culture shock
V-chip
Food bank
Book club
Dress code