THE EFFECT OF TWO DIFFERENT MODES OF FEEDBACK ON LEXICAL DEVELOPMENT OF ACADEMIC REGISTER IN ESP/EAP STUDENTS' WRITING

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Abstract

Feedback is considered a powerful tool for developing EFL learners' writing proficiency and this role might be supported by Sociocultural Theory. This theoretical framework assumes that learning is a social phenomenon, and that human intellectual capacities, including language development, are socially and culturally mediated within the zone of proximal development (Villamil & Guerrero, 2006; Vygotsky, 1978). The current study examines the effect of two modes of multi-draft electronic feedback (e-feedback) on the lexical development of ESP/EAP students' writing using AntWordProfiler (Anthony, 2014). The participants of the study were 65 ESP/EAP advanced learners who were divided into two groups. The first group (the teacher group) was provided with multi-draft teacher e-feedback on their subsequent drafts, while the other one (the peer group) was given both peer and teacher e-feedback on their drafts. The study investigates the lexical developments in academic register between pre-test and post-test learner corpora collected in the teacher and peer group, and compares the differences between both groups. The results indicate that the students' use of academic and specific vocabulary showed development between the pre-test and post-test in both groups, at the expense of less advanced and less specific vocabulary. The findings also show that these lexical developments do not differ between the comparison groups, suggesting that students might equally benefit from peer feedback as they do from teacher feedback.

Key words: academic writing, register, feedback, learner corpus, lexical development

Introduction

Feedback plays an important role in education, and is crucial for encouraging and consolidating learning (Brophy, 1981, p. 22). Hattie and Timperley (2007, p. 81) conceptualise feedback as "information provided by an agent (e.g., teacher, peer, book, parent, self, experience) regarding aspects of one's performance or understanding". There is a range of theoretical stances on the role and nature of feedback from a

Second Language Acquisition perspective. The stance taken in this study is based on the Sociocultural Theory originating in the work of Vygotsky (1978), who views learning not as an individual activity but one with social and collaborative dimensions. Learning as a mental activity is mediated through social interactions with an expert, between learners, or among more capable peers. It should optimally occur in the zone of proximal development (ZPD) which is a theoretical construct defined as the area between the potential level of development where learners can solve problems independently and the current level of their development where they can solve problems with the assistance of an expert or a more developed peer (Vygotsky, 1978, p. 86). ZPD for and second language learning was reformulated as the distance between two levels of development indicated by the level of the learner's current linguistic production and the level of the learner's potential linguistic production. The level of potential production is then determined through learner's language produced with the assistance of a teacher or a peer (Foster & Ohta, 2005, p. 414). The support provided by an expert or a peer in ZPD is referred to as scaffolding which is removed once the novice learner is capable of independent functioning (Wood, Bruner, & Ross 1976, p. 90).

There is an extensive body of studies investigating the phenomenon of providing feedback on ESL/EFL students' writing from various perspectives. The following review focuses on studies investigating the effects of different types of feedback on language development. Chaudron (1984) compared the impact of teacher and peer feedback on students' improvements in the revision of their writing, and found neither of them was superior in promoting improvement on revision. Hedgcock and Lefkowitz's (1992) experimental study compared a control group with only teacher-written feedback and an experimental group where oral peer feedback was provided. After analysing the final drafts of both groups, the experimental group achieved significantly higher scores than the control group. Similar results were presented by Miao, Badger and Zhen (2006) in a study which showed that both teacher and peer feedback and subsequent revisions helped to improve the quality of students' writing, and that teacher feedback seemed to contribute to greater improvement in the quality of students' writing between the first and final drafts. Ruegg (2015) investigated the relative effects of peer and teacher feedback on improvement in EFL students' writing ability. The effect was measured by the difference between gains in scores between the pre-test and post-test writing. The teacher feedback group improved significantly more in grammar scores than the peer feedback group, but there was no significant difference between gains in organisation, vocabulary, content or the total essay scores between the groups.

The present study aims to investigate the effect of two modes of e-feedback on lexical development in the writing of EFL students studying English for Academic and Specific Purposes (ESP/EAP, i.e., for simplicity's sake, from now on EASP) at the tertiary level. The study was conducted in the last semester of the four-semester EASP course at

the Faculty of Economics and Administration at Masaryk University (Brno, the Czech Republic). One of the main objectives of this four-semester course is to develop communicative language competence (CLC) in English as a foreign language in an academic and professional context. In terms of writing, and in context of this course, this might be narrowed to developing sociolinguistic competence. Bachman and Palmer (1996, p. 70) in their model of language ability define it as knowledge of sociolinguistic conventions for creating and interpreting language appropriately for the setting in which language is used in terms of language user's sensitivity to differences in dialects or varieties, registers, and to idiomatic or natural use of language.

Academic writing as a text variety might be analysed from the perspective of register, which is defined by Biber and Conrad (2009, p. 6) as "a variety of language associated with a particular situation of use". The description of a register covers three major components: the situational context, the linguistic features, and the functional relationships between the first two components. The present study focuses on certain linguistic features of academic register, namely vocabulary features in terms of register-relevant lexical choice (Biber & Conrad, 2009, p. 78), and aims to find out whether multi-draft e-feedback has any effect on the lexical development of academic register in EASP students' writing, and whether different modes of feedback provision lead to a different level of this development.

Method

Participants

The participants of the study were 65 undergraduate students in an EASP course focusing on Business English with a target CEFR level of C1. The population of the study was homogenous in terms of language proficiency, as all students have to accomplish three prerequisite courses completed by standardised pro-achievement end-of-course tests. The participants were enrolled in four seminar groups of the 13-week EASP course in the spring semester of the academic year 2018. Each of these four seminar groups was randomly assigned to one of the comparison groups (Group 1, Group 2), each receiving a different treatment. Table 1 shows a detailed description of participants' profiles.

Table 1. Learner profiles

		Group 1	Group 2
Gender	Male	17	11
	Female	16	21
Age	Mean	21.4	21.4
	Range	21 – 24	21 – 23
L1 background	Czech	21	15
	Slovak	11	17
	Other	1	0
English proficiency test (*CEFR based*)	Mean Score	59.3	61.8
	SD	11.3	14.3
Course test 1 results	Mean Score	54.7	56.3
	SD	6.5	7.4
Course test 2 results	Mean Score	52.7	53.8
	SD	6.4	6.8
Course test 3 results	Mean Score	44.5	46.8
	SD	5.9	5.6

B1: 42-63; B2: 64-86; C1: 87-95
Course test 1+2: Max.: 75pts. / Min. to pass: 45pts.
Course test 3:   Max.: 65pts. / Min. to pass: 39pts.

Aim and research questions

The study quantitatively investigates the effect of multi-draft e-feedback on lexical development in EASP students' writing. Specifically, it investigates how the lexical characteristics of students writing reflect academic register-relevant lexical choice in response to multi-draft e-feedback. In doing so, the study poses three research questions:

RQ1: What is the effect of teacher-only multi-draft e-feedback on register-relevant lexical choice?

RQ2: What is the effect of multi-draft e-feedback provided by both peer and teacher on register-relevant lexical choice?

RQ3: Is there any difference in the effect of the two modes of multi-draft e-feedback on register-relevant lexical choice?

Research design

The research took the form of a quasi-experiment pre-test-post-test comparison group design, with the treatment differing between the groups (Mackey & Gass, 2005, pp. 146-147). Each comparison group (Group 1, Group 2) was formed by two randomly assigned intact seminar groups chosen by participants depending on their schedule needs. Pre-tests and post-tests were conducted to measure the effect of the treatment in the comparison groups.

The research was carried out over 13 weeks (*t1-t4*). In the first six consecutive contact sessions (*t1*), the participants were introduced to the features of academic writing in English, and to the features of a specific genre – the problem-solution essay. After being provided with this input, they were asked to write three drafts of a pre-test essay, and they were provided with e-feedback on each draft (*t2-t3*). In Group 1, e-feedback on all three drafts was provided only by the teacher, whereas in Group 2, teacher e-feedback was replaced by peer e-feedback on the first draft. Finally, the participants were asked to write post-test problem-solution essays (*t4*). Table 2 shows the research design.

Table 2. Research design

	Group 1 (N=33 participants)	Group 2 (N=32 participants)
t1	Face-to-face input on the features of academic English and the genre of a problem-solution essay.	
t2	**PRE-TEST** **1st draft** of problem-solution essay	
t3	**TREATMENT**	
	Teacher feedback on the 1st draft	Face-to-face training on peer feedback provision
		Peer feedback on the 1st draft (*by 3 peers*)
	1st revision based on **teacher feedback**	1st revision based on **peer feedback**
	2nd draft	**2nd draft**
	Teacher feedback on the 2nd draft	**Teacher feedback** on the 2nd draft
	2nd revision based on **teacher feedback**	2nd revision based on **teacher feedback**
	3rd draft = Final version	**3rd draft = Final version**
	Teacher assessment of the final version	
t4	**POST-TEST** Post-test problem-solution essay assigned	

Treatment description

The treatment, the effect of which is investigated in this study, consists of three-draft e-feedback on the pre-test problem-solution essays. On their first and second drafts, Group 1 is provided with teacher-only asynchronous e-feedback, which takes the form of indirect coded feedback covering five broad categories: organisation, mechanics, academic style, vocabulary and grammar. Using different colour codes associated with one of the above categories, the teacher highlights problematic language in the students' texts. As the genre of problem-solution essay is new to students, they encounter certain difficulties while mastering it. Thus the teacher provides them also with comments in revision mode related to problems with its genre-relevant structure. Also, links to external sources are supplemented to provide a full explanation or metalinguistic information.

Furthermore, the teacher adds general evaluative commentary, informing the writer about the extent to which he/she meets the general expectations. Finally, a checklist with a 4-point scale is added to inform the writer about the extent to which they have met the specific expectations. The checklist includes eight categories, and the category "academic style" is further subdivided into five subcategories covering the features of academic writing which the participants were instructed on in contact classes.

The teacher e-feedback on the third draft is provided in the form of direct, corrective feedback in revision mode, accompanied by the above mentioned checklist. The teacher also assesses the essay in the same manner as if it was an exam essay, using an analytical scale covering four criteria (task completion, organisation, vocabulary, grammar) to inform the writer about the final exam assessment criteria. The teacher also evaluates the effort participants made to incorporate the feedback in their writing. Finally, a general evaluative commentary is added to summarise the writer's achievement with potential space for improvement.

Group 2 was also provided with three rounds of e-feedback on their three-draft composition writings. However, unlike Group 1, the e-feedback on the first draft was provided by three peers randomly and anonymously assigned by the online application Peer Review, which seamlessly ensures the logistics of essay exchanges among the participants. Prior to peer feedback, the peers were given a 45-minute training session to familiarise themselves with providing feedback to their peers (*t3*).

The manner of peer e-feedback provision resembles that of the teacher feedback. The peers highlight problematic language with different colour codes corresponding to five feedback categories and are asked to add comments in revision mode related to problematic content or essay structure. Furthermore, they are asked to use the same checklist as the teacher to indicate the extent to which their peers' essays meet

expectations. The second and third round of three-draft e-feedback is provided by the teacher in the same manner as in Group 1.

Data collection

Data collection took place over six weeks (*t2-t4*), in the course of which 65 pre-test essays and 65 post-test essays were collected (33 in Group 1, 32 in Group 2). These essays were compiled to form two pre-test corpora and two post-test corpora, and the prompts as shown in Figure 1 and 2 were used to elicit the texts for the corpora.

Write the first draft of a problem-solution essay of 350-450 words on ONE of the following topics, that will include:

- *introducing the situation*

- *stating the problem and its solutions*

- *concluding by summarising and evaluating*

1 A domestic appliance company is facing decreasing sales.

2 A country's economy is suffering from rising unemployment.

Figure 1. Prompt for eliciting pre-test learner corpora

Write the first draft of a problem-solution essay of 350-450 words on ONE of the following topics, that will include:

- *introducing the situation*

- *stating the problem and its solutions*

- *concluding by summarising and evaluating*

1 A small Czech brewery has recently been acquired by an American multinational.

2 A corporate customer has started defaulting on payments to its supplier.

Figure 2. Prompt for eliciting post-test learner corpora

Since the students are familiar with the genre and the stylistic and formal requirements for this task from the contact classes, these aspects are not explicitly included in the problem-solution essay prompts. To maximise the participants' interest in writing the essays, they are free to choose either of the topics, depending on their content knowledge.

The operationalisation of lexical development in our study

In line with the theoretical framework outlined above, students' lexical choice was computed using the freeware tool AntWordProfiler (Anthony, 2014) to profile the vocabulary level. This software generates a lexical frequency profile (LFP) which shows vocabulary statistics and frequency information about a corpus of texts. To generate the LFP, the software compares the texts against three level lists, and shows the relative proportion of words a learner uses at different vocabulary frequency levels (Laufer & Nation, 1995, p. 311).

There are three vocabulary frequency level lists. The first one contains the 1,000 most frequent words in English (List 1), the second one contains the second 1,000 most frequent words in English (List 2), and the third list contains 570 lower-frequency words which are typically found in academic texts. This Academic word list (AWL) is derived from a corpus of academic texts compiled from the sub-corpora of arts, commerce, law and science (Coxhead, 2000). The fourth list referred to here as List Others contains less-frequent words that do not appear in the three abovementioned lists.

Data analysis

Individual texts in pre-test and post-test learner corpora were analysed using AntWordProfiler to obtain their LFPs. As the lengths of the texts range from 305 to 418 words in the pre-test corpora, and from 301 to 560 words in the post-test corpora, percentages of individual students' frequencies were used for all the calculations. To avoid misinterpretation of the data by the computer-assisted tools, all essays were corrected for misspellings. Also, proper nouns, non-existent words, and abbreviations were deleted. Finally, incorrectly used words were omitted, as they could not be considered as part of the participant's productive lexicon (Laufer & Nation, 1995, p. 315). Table 3 shows the outline of the analysed data.

Table 3. Outline of data used for analysis

	Group 1		Group 2	
	Pre-test	*Post-test*	*Pre-test*	*Post-test*
N of essays	33	33	32	32
N of Tokens	13,084	12,485	13,119	12,897
Mean of Tokens	396	378	410	403
Range	305 – 529	30 – 443	345 – 536	332 – 560
SD	50.2	34.0	44.2	48.0

Results and discussion

This section gives an overview of the findings in light of the research questions.

RQ1: *What is the effect of teacher-only multi-draft e-feedback on register-relevant lexical choice?*

Table 4 presents means of percentages of words students used at different vocabulary frequency levels in their pre-test and post-test essays in Group 1 with teacher-only feedback. In both corpora, the majority of words belong to List 1 of the first 1,000 most frequent words in English, and the rest of the words are distributed among the remaining three vocabulary frequency lists.

Concerning the changes between pre-test and post-test essays in students' LFPs, in their pre-test essays the students used on average 79.3% words from List 1, and this percentage fell by 3.7% to 75.6% in their post-test essays. This decrease was compensated by either a greater use of words from the Academic wordlist or from the List Others. In their post-test essays, the students used 1.1% more words from the Academic wordlist, which is an increase from 9.9% to 11.0% between pre-test and post-test. Nevertheless, a more considerable 2.8% increase can be observed in the use of words from the List Others, from 4.9% in the pre-test essays to 7.4% in the post-test essays.

Regarding the importance of these changes, when effect size indices (Cohen d) were calculated, absolute effect sizes of 0 – 0.2 were taken to indicate a negligible effect; 0.2 – 0.49 indicated a small effect, 0.5 – 0.79 indicated a medium effect; and greater than 0.8 indicated a large effect (Mareš, Rabušic, & Soukup, 2015, p. 224). Thus, the decrease was negligible (0.07) for the students' lexical choice of the words from List 2, and there was a small increase (0.33) in the lexical choice from the Academic wordlist between the pre-test and post-test. However, the importance of the change in lexical choice was large for List 1 and the List Others, with the effect size index showing 0.92 for the decrease in the use of the words from List 1, and 1.22 for the increase in the use of the words from the List Others.

Table 4. Mean percentages and standard deviations of words (tokens) at different frequency levels for individual students in Group 1

Group 1	Pre-test		Post-test				
	Mean	SD	Mean	SD	Change	Cohen d	Effect size
List 1	79.3	4.6	75.6	3.6	-3.7	0.92	Large
List 2	6.2	1.6	6.0	1.5	-0.2	0.07	Negligible
AWL	9.9	3.2	11.0	3.2	1.1	0.33	Small
Others	4.6	2.1	7.4	2.5	2.8	1.22	Large

RQ2: What is the effect of multi-draft e-feedback provided by both peer and teacher on register-relevant lexical choice?

Table 5 presents the means of percentages of words students used at different vocabulary frequency levels in pre-test and post-test essays in Group 2, in which both peer and teacher feedback was provided. Similarly to Group 1, the majority of words students used in their pre-test and post-test essays belong to List 1, and the rest of the words are distributed among the remaining three lists.

As for changes in the lexical choice from individual frequency lists between pre-test and post-test, the students used words from List 1 on average 79.3% in their pre-test essays, whereas in their post-test essays this percentage fell by 3.8% to 75.5%. This decrease was compensated by a higher use of words from the AWL and mainly from the List Others. In their post-test essays, the students used 1.0% more expressions from AWL, showing an increase from 10.1% to 11.1%. However, a more considerable 2.5% increase can be observed in the use of words from the List Others, from 4.5% to 7.0%.

Regarding the importance of these changes, the effect size was negligible (0.2) for the increase in the use of the words from List 2, and small (0.34) for the increased use of words from the AWL. However, the effect size was large (0.91) for the decrease in the use of words from the List 1 and for the increase (1.13) in the use of words from the List Others.

Table 5. Mean percentages and standard deviations of words (tokens) at different frequency levels for individual students in Group 2

Group 2	Pre-test		Post-test				
	Mean	SD	Mean	SD	Change	Cohen d	Effect size
List 1	79.3	3.7	75.5	4.5	-3.8	0.91	Large
List 2	6.1	1.2	6.4	2.0	0.3	0.2	Negligible
AWL	10.1	2.0	11.1	3.6	1.0	0.34	Small
Others	4.5	2.1	7.0	2.2	2.5	1.13	Large

RQ3:   Is there any difference in the effect of the two modes of multi-draft e-feedback on register-relevant lexical choice?

Table 6 presents the development between pre-test and post-test in the comparison groups which received different treatments. The frequencies of words used at different frequency levels as well as the effect sizes are similar in both groups between pre-test and post-test. The effect sizes were negligible for change in the lexical choice from List 2 and small for AWL. The effect size of the decrease in the lexical choice from List 1 was large: 0.92 in Group 1, and 0.91 in Group 2. This decrease was counterbalanced mainly by increased lexical choice from the List Others, with a large effect size: 1.22 in Group 1, and 1.13 in Group 2.

Table 6. Comparison of different treatments between Comparison Groups 1 and 2 and between pre-test and post-test

	Group 1			Group 2			
	Pre-test	Post-test	Cohen d	Pre-test	Post-test	(Cohen d)	Effect size
List 1	79.3	75.6	0.92	79.3	75.5	0.91	Large
List 2	6.2	6.0	0.07	6.1	6.4	0.2	Negligible
AWL	9.9	11.0	0.33	10.1	11.1	0.34	Small
Others	4.6	7.4	1.22	4.5	7.0	1.13	Large

Discussion and conclusion

This study investigates the effects of treatment in the form of two different modes of the multi-draft e-feedback provision on EASP students' writing, with regard to developing their sociolinguistic competence, which was operationalized as a register-relevant lexical choice. To investigate register-relevant lexical choice and its potential change after the

treatment, the corpus linguistic tool AntWordProfiler (Anthony, 2014) was used to generate the Lexical Frequency Profiles of students' texts.

The analysis of the pre-test and post-test students' LFPs indicates that the multi-draft e-feedback provision on subsequent versions of the same text has a positive effect on register-relevant lexical choice. After the treatment, the use of high-frequency words from List 1 decreased, while the use of low-frequency words from register-relevant Academic wordlist and List Others, where field-specific vocabulary mostly appear, increased. These changes measured by the effect size index are large for List 1 and List Others, which suggests that students prefer using more field-specific words after the treatment. Thus, the treatments seem to have a positive effect on developing their sociolinguistic competence narrowed to appropriacy of the register-relevant lexical choice.

As the effect of treatments does not differ between comparison groups, it can be concluded that the mode of multiple-draft e-feedback provision does not affect the register-relevant lexical choice in students' writing. Nevertheless, this finding has important pedagogical implications, since the replacement of one teacher feedback provision with peer feedback considerably reduces teacher feedback time, as the teacher spends approximately 20 minutes providing feedback on one essay. Regarding the number of essays to be provided with teacher feedback and time constraints pertinent to the organization of the academic year, using peers as feedback providers might prove beneficial to writing teachers.

Moreover, numerous studies advocate peer feedback. According to their findings, peer feedback seems to be more adequate to the developmental level of writers, thus providing them with more information for potential revisions (Allison & Ng, 1992; Chaudron, 1984). Peer feedback also gives students a sense of a broader and more authentic audience, and strengthens their sense of ownership of the text (Carson & Nelson, 1994; Mangelsdorf, 1992). By providing feedback, peers are also introduced to other ideas and views on the topic (Paulus, 1999). Finally, providing peer feedback can produce more significant improvement in the quality of writing of those providing it than of those only receiving it, as the findings of Lundstorm and Baker (2009) indicate.

This study suggests that peer feedback in multi-draft feedback provision has a similar effect on students' register-relevant lexical choice as does teacher-only multi-draft feedback. Considering the benefits of both, implementation of peer feedback in the process of developing students' writing skills might be seriously considered.

References

Allison, D., & Ng, P. (1992). Developing text revision abilities. In M. Lau & M. J. Murphy (Eds.), *Developing writing: Purposes and practice* (pp. 106-130). Hong Kong: Institute of Language Education.

Anthony, L. (2014). AntWordProfiler (Version 1.4.1) [Computer Software]. Tokyo, Japan: Waseda University. http://www.laurenceanthony.net/software

Bachman, L. F., & Palmer, A. S. (1996). *Language testing in practice: Designing and developing useful language tests.* Oxford: Oxford University Press.

Biber, D., & Conrad, S. (2009). *Register, genre, and style.* Cambridge, UK: Cambridge University Press.

Brophy, J. (1981). Teacher praise: A functional analysis. *Review of Educational Research, 51*(1), 5-32. Retrieved from www.jstor.org/stable/1170249

Carson, J. G., & Nelson, G. L. (1994). Writing groups: Cross-cultural issues. *Journal of Second Language Writing, 3*(1), 17-30. doi: 10.1016/1060-3743(94)90003-5

Chaudron, C. (1984). The effects of feedback on students' composition revisions. *RELC Journal, 15*(2), 1-14. doi: 10.1177/003368828401500201

Coxhead, A. (2000). A new Academic Word List. *TESOL Quarterly, 34*(2), 213-238. doi: 10.2307/3587951.

Foster, P., & Ohta, A. S. (2005) Negotiation for meaning and peer assistance in second language classrooms. *Applied Linguistics, 26*(3), 402-430. doi: 10.1093/applin/ami014

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research, 77*(1), 81-112. doi: 10.3102/003465430298487

Hedgcock, J., & Lefkowitz, N. (1992). Collaborative oral/aural revision in foreign language writing instruction. *Journal of Second Language Writing, 1*(3), 255-76. doi: 10.1016/1060-3743(92)90006-B

Mackey, A., & Gass, S. M. (2005). *Second language research: Methodology and design.* New Jersey: Lawrence Erlbaum Associates.

Mangelsdorf, K. (1992). Peer reviews in the ESL composition classroom: What do the students think? *ELT Journal, 46*(3), 274-284. doi: 10.1093/elt/46.3.274

Mareš, P., Rabušic, L., & Soukup, P. (2015). *Analýza sociálněvědních dat (nejen) v SPSS.* [Analysis of behavioral science data in SPSS. In Czech.] Brno: Masarykova univerzita.

Miao, Y., Badger, R., & Zhen, Y. (2006). A comparative study of peer and teacher feedback in a Chinese EFL writing class. *Journal of Second Language Writing, 15*(3), 179-200. doi: 10.1016/j.jslw.2006.09.004

Laufer, B. & Nation, P. (1995). Vocabulary size and use: Lexical richness in L2 written production. *Applied Linguistics, 16*(3), 307-322. doi: 10.1093/applin/16.3.307

Lundstrom, K., & Baker, W. (2009). To give is better than to receive: The benefits of peer review to the reviewer's own writing. *Journal of Second Language Writing, 18*(1), 30-43. doi: 10.1016/j.jslw.2008.06.002

Paulus, T. M. (1999). The effect of peer and teacher feedback on student writing. *Journal of Second Language Writing, 8*(3), 265-289. doi: 10.1016/j.sbspro.2015.06.018

Ruegg, R. (2015). The relative effects of peer and teacher feedback on improvement in EFL students' writing ability. *Linguistics and Education 29*, 73-82. doi: 10.1016/j.linged.2014.12.001

Villamil, O. S., & de Guerrero, M.C.M (2006). Sociocultural theory: A framework for understanding the social-cognitive dimension of peer feedback. In K. Hyland & F. Hyland (Eds.), *Feedback in second language writing: Context and issues* (pp. 23-41). New York: Cambridge University Press.

Vygotsky L. S. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Wood, D., Bruner, J., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry, 17*(2), 89-100. http://isites.harvard.edu/fs/docs/icb. topic850552.files/Wood1976.pdf