

DEVELOPING ACADEMIC WRITING SKILLS IN ENGLISH AS L2 BY MEANS OF COLLABORATIVE E-LEARNING TOOLS

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Abstract: Collaborative work has become increasingly important; however, many teachers do not include it in teaching writing since they regard writing process as an individual act. The aim of this research is to show a new approach in teaching academic writing. It is based on the sociocultural theory, constructivism and the developed process writing model. The idea is that students go through the process of collaboration by using wiki, forum and glossary, and in the end participate in peer editing and peer assessment activities (through workshops). The research question was whether the students who participated in various collaborative activities performed better in the final exam when compared to the students who did not participate or took small part in them. The research took place in 2012 at the Faculty of Political Sciences in Belgrade. It was confirmed that the students who participated in collaborative activities showed continuous development in writing. Furthermore, they performed better in the final test when they had to write an argumentative essay. The students particularly showed good results in compositional organization, mainly in using the funnel introduction, formulating the thesis statement and controlling idea, providing good supporting details. After ten weeks of collaborative practice, the shape and internal pattern of their essays became clearer, and organisational skills were more adequately controlled. The research also showed that blogs and glossaries were not as useful as it is generally thought. The best results were by using wiki, forum and workshop.

Keywords: English, academic writing, writing skill, collaborative learning, collaborative assessment, distance learning

INTRODUCTION

“It’s not about the *tool*, it’s *using* the tools to facilitate *learning*“

(Churches, 2009)

Writing is one of the most important basic skills that belongs to the three Rs (reading, writing and arithmetic). Developing writing skills is a very demanding and difficult task both for teachers and students. It becomes even more difficult when it comes to developing writing skills in a foreign language. Traditional classroom setting and paper based tasks make this process complicated. Moreover, it needs time to go through the whole process of writing, revising, evaluating and re-writing. On the other hand, if eLearning tools are implemented when teaching writing, this process becomes simpler and shorter in time. The results are better in the end, too. The

aim of this paper is to show a new approach in teaching academic writing where online tools for peer assessment are used. This approach is based on the research that took place in 2013 with students at the Faculty of Political Sciences in Belgrade. The theoretical background can be found in the theory of socioculturalism and constructivism. The model for developing writing skills is the model for process writing (The Hayes-Flower writing model 1981), but revised and adapted for this approach.

Rapid technological developments have enabled evolution of technologies used for learning. Expansion of numerous tools has diversified educators’ options towards the implementation of the technology-supported learning, including a heterogeneous set of tools, such as Learning Management Systems (LMS), virtual classrooms, massive open online courses, and serious games. These tools (usually called Web 2.0 tools) can offer a lot to educators because

they allow for socialization, cooperation, creativity, authenticity and sharing (Peachey, 2009). One of the most important aspect of using them is that they provide interaction between students, which leads to better socialization and cooperation online.

The role of interaction in online learning is crucial for effective learning because it is not only student-student interaction that matters. Six different forms of interaction that account for learning can be recognized in distance learning education: student-student, student-teacher, student-content, teacher-teacher, teacher-content and content-content (Zornić & Hasanović, 2011). Some authors believe that this kind of learning is called e-learning 2.0, because students learn to interact with each other within the electronic tools:

In this concept, students are active participants who share ideas, solve outstanding problems, using different sources of information together to create new knowledge. This approach to the collection of "small pieces of content, loosely connected" in the ad hoc formed learning communities is called e-learning 2.0. (Kljakić, 2007)

Theories that support such new vision of the learning process are based on the assumption that students are active participants who seek and construct knowledge within a context that has meaning to them. In addition to emphasizing the interaction and active learning process, which originate from the socio-cultural theory and the theory of constructivism, there are elements of behaviorism and cognitive approach, which should not be ignored when designing courses. Communication and collaborative learning can be realized by means of collaborative tools (which are generally an integral part of the learning management system, or can be applied as an application on the network). For our research we used Moodle with its modules wiki, forum, blog, glossary and workshop, meticulously designed to support scaffolding and peer learning.

THEORETICAL FRAMEWORK

Sociocultural theory and constructivism are rich soil for explaining collaborative learning, the importance of social interaction in online learning environments and using collaborative

tools in learning. A Russian psychologist Lev Vygotsky developed his theory of collaborative learning through the construct of "the zone of proximal development"; Jerome Bruner, an American psychologist, introduced the ideas of "scaffolding", "discovery learning" and "mutual learning cultures", while Eric Mazur, an American physicist, proposed "peer instruction". All these authors believe that a learner needs interaction and collaboration with other learners in order for learning processes to occur.

Vygotsky, a pioneer in this field, argued that children learn best in a social environment, and construct meaning through interaction with others. He stated that "with collaboration, direction, or some kind of help the child is always able to do more and solve more difficult tasks that he can independently" (Vigotski, 1996/1934). He also explained that there is the zone of actual development and the zone of proximal development which is defined as "the distance between the actual developmental level as determined by the independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vigotski, 1996/1934). In brief, there are no limits in learning as long as there is a more capable person to interact with.

When applied to second language acquisition, sociocultural theory sees learning as dialogically based, i.e., "acquisition occurs in rather than as a result of interaction" (Ellis, 2008: 526). Bruner continued in the same manner as Vygotsky and introduced the idea of "scaffolding". Scaffolding is the same concept as the zone of proximal development. It is "the dialogic process by which one speaker assists another in performing a function that he or she cannot perform alone" (Ellis, 2008: 527). This means that in peer learning children are more prone to make progress

Bruner continued in the same manner as Vygotsky and introduced the ideas of "scaffolding", "mutual learning cultures" and "discovery learning". Scaffolding is closely linked to the zone of proximal development. It is "an inter-psychological process through which learners internalize knowledge dialogically" (Ellis, 2008). It is concerned with nature of tutorial process where an expert (the one who knows the answer) helps the other (who is less

expert) to solve the problem, carry out a task or achieve a goal (Wood, Bruner, & Ross, 1976). In describing the importance of mutual learning cultures, Bruner states that “[t]here is a mutual sharing of knowledge and ideas, mutual aid in mastering material, division of labor, and exchange of roles, opportunity to reflect on the group’s activities [...] The teacher is the enabler, *primus inter pares*.” (Bruner, 1996). Students can take an active part in the learning process if the classes are organized in a way that supports learning through discovery (discovery learning). This type of learning requires students to independently and inductively draw conclusions; not only to be passive listeners-receptors of the presented material; they must process the problem set before them as part of their cognitive abilities, which leads both to an increase in the quality of knowledge and its durability, and to the development of intellectual abilities. Learning must be experiential:

Most Net Gen learners prefer to learn by doing rather than by being told what to do. The role having grown up with video games plays in this preference is unclear, but Net Gen students learn well through discovery—by exploring for themselves or with their peers. This exploratory style enables them to better retain information and use it in creative, meaningful ways. (Oblinger & Oblinger, 2005).

Eric Mazur's idea on peer instruction is similar to the idea of scaffolding. Mazur developed his idea at the beginning of the 90s and has so far supported it by numerous studies (Fagen, Crouch, & Mazur, 2002). Peer instruction is an interactive strategy in teaching when teachers’ lecture is stopped periodically to pose a question (these questions are called ConceptTests). The procedure is as follows:

- Question posed
 - Students given time to think
 - Students record or report individual answers
 - Neighboring students discuss their answer
 - Feedback to teacher: Tally of answers
 - Explanation of the correct answer
- (Turpen & Finkelstein, 2010)

Christudason also emphasizes the role of peer learning. She defines peer learning as “a form of cooperative learning that enhances the value of

student-student interaction and results in various advantageous learning outcomes” (Christudason, 2003). In order to make the most of peer learning activities, instructors must provide ‘intellectual scaffolding’, i.e. “teachers prime students by selecting discussion topics that all students are likely to have some relevant knowledge of; they also raise questions/issues that prompt students towards more sophisticated levels of thinking. In addition, collaborative processes are devised to get all group members to participate meaningfully” (Christudason, 2003). She also concluded from her research that peer learning activities result in (a) team-building spirit and more supportive relationships; (b) greater psychological well-being, social competence, communication skills and self-esteem; and (c) higher achievement and greater productivity in terms of enhanced learning outcomes (Christudason, 2003).

It has been shown that interaction, cooperation, collaboration and socialization have deep theoretical background in explaining the psychology of learning processes. When using online resources for learning, it is necessary to use those which will take all these aspects into account.

COLLABORATIVE (PEER) LEARNING

Collaborative learning, cooperative learning and peer learning are synonymous and mean learning in a group in which all members of the group take responsibility not only for their own learning, but also for the learning of their peers, “Collaborative learning is a type of cooperative learning which fosters the value of interaction between students and results in a variety of successful outcomes” (Christudason, 2003). They have a common goal, which can be problem-solving, research or upgrading skills. If we think of nowadays learners that belong to the Internet generation, they value social interaction a lot: “The Net Gen often prefers to learn and work in teams. A peer-to-peer approach is common, as well, where students help each other. In fact, Net Geners find peers more credible than teachers when it comes to determining what is worth paying attention to.” (Oblinger & Oblinger, 2005)

The implications for teaching are that a learning platform needs to provide a socially rich environment in which students can explore their

domain knowledge together with their peers, teachers and outside experts. Social networks and its activities, when used appropriately, can be viewed as manifestation of informal learning and a platform that allows collaboration and effective communication. Courses for distance learning should be created in such a way that will abound in tools that enable discussions, collaborative work, problem solving and support in learning.

PEER ASSESSMENT

An important aspect of peer learning is peer assessment. In this section we will give a definition of peer assessment/evaluation, emphasize the benefits and provide a model on how it should be implemented.

Peer assessment is a process of assessment in which schoolmates, colleagues from the faculty or peers evaluate each other's work. Falchikov (1995) defines peer assessment as “the process through which groups of individuals rate their peers”. Topping proposed a more detailed definition, “Peer assessment is defined as an arrangement in which individuals consider the amount, level, value, worth, quality, or success of the products or outcomes of learning of peers of similar status” (Topping, 1998: 250). A similar idea is with the concept peer editing: it is a technique where students work together, review, correct and suggest changes or comment on the paper before the final version is submitted to the teacher.

It is obvious that there is a difference between traditional, deep-rooted ways of assessment only by teachers and alternative evaluation by and among the students. Traditional assessment views the student as a passive recipient of knowledge who can be assessed only by authorities such as teachers. Learning is an individual process and the evaluation is objective and neutral (Anderson, 1998, cited in Lee 2009). An alternative assessment expects from students to apply their knowledge and skills in order to read with understanding, analyze, criticize and evaluate the work of others. There is a mutual benefit in this interaction – both for the one who evaluates and for the one who is evaluated. The task assigned to the evaluator is cognitively

demanding and meets the highest levels of Bloom's taxonomy. In the analysis and evaluation of the works of others, the evaluators become aware of their own work and develop critical skills.

While conducted our research, we insisted that the students from the beginning understand the importance of collaborative learning. They did not have the freedom to arbitrarily provide feedback, but the feedback was based on the peer review sheet. The questions from the sheet were used to create online peer review tool in the workshop.

Collaborative assessment, despite some shortcomings, which are largely culturally conditioned (Zhang, 1995), has many advantages and should be implemented in the current model of the writing process and the creation of distance learning courses.

RESEARCH¹

The scope of this research was developing academic writing skills in English as L2 by means of electronic collaborative tools (wikis, forums, blogs, glossaries and workshops). The research took place in 2013 at the Faculty of Political Sciences in Belgrade. 105 students participated in the research. The 10-week course “Introduction to Academic Writing” took place online on Moodle platform called Writing Lab at globetrotter.rs. The research question was whether the students who participated in various collaborative activities performed better in the final exam when compared to the students who did not participate or took small part in them. The main hypothesis was that the students who use e-learning collaborative tools have better results in the final exam. It is because they develop critical thinking skills in the process of collaborative/peer assessment which helps them with their own writing.

METHODOLOGY

At the beginning of the course students were given the **entry test**. The entry test was writing an argumentative essay (300 to 350 words) on the topic *Should Pride Parade be Allowed in Our*

¹ The research was part of the author's doctoral dissertation defended in 2017 at the Faculty of Philology, University of Belgrade.

Country? Students did not find out the number of points they received for this until the end of the course, because they re-examined their writing in the end (self-assessment).

During the 10-week course, the students participated in different **collaborative activities**: wiki, blog, glossary, forum and workshop². The main tasks for each week were:

1. to participate in the brainstorming activity by writing ideas - at least 3 ideas
2. to read the lesson
3. to write a paragraph
4. to assess friend's paragraph
5. to participate in the forum by both asking and answering questions
6. to add new vocabulary to glossary
7. write a blog entry- at least 200 words long one
8. comment on friend's blog entry - provide good arguments

At the end of the course, the student had their **final test** where they had to write an essay (300 to 350 words) on one of the following two topics:

1. In what ways has information technology changed work and working practices?
2. Guns don't kill people, people do. (Give your opinion.)

After the course had been completed, the statistical analysis was carried out.

RESEARCH RESULTS

105 students participated in the research divided into two groups based on their preferences to learn. One group of students did not participate in collaborative activities or participated minimally; instead, they preferred one-on-one interaction with the teacher. They were the control group. Our experimental group was made of students who participated in collaborative activities and gathered points in them (experimental group).

The number of students from experimental group participating in the collaborative activities is shown in Table 1:

Table 1 Number of participants in collaborative activities from experimental group

Collaborative activity	Number of participating students (n = 75)	Participation in %
Glossary	68	90,67
Wiki	68	90,67
Forum	59	78,67
Peer assessment	70	93,33
Blog	16	21,33

Statistical analysis of their final marks is shown in Table 2:

Table 2 Average final marks for both groups

	Number of students	Average mark on final exam	Average no. of points on final exam
Control group	30	8,03	31,33
Experimental group	75	8,89	34,71
Total	105		

The average mark of the students in the control group was 8,03, while for the ones in the experimental group was 8,89. The results of t-test when comparing these two groups is **p=0,006292905**. This result shows that these two sets of data from these groups are significantly different.

Progression of Students with Respect to the Initial Situation

This type of statistical testing was done with the results of students who participated in collaborative activities and those who did not. The aim was to determine the extent to which students progress from an initial state. To do this we took into consideration the following parameters: marks on the entry test, marks on the final test and the number of points obtained in the

² For detailed description of the work with the workshop, please see Implementing Peer Assessment Tools for Teaching Writing (Ljubojević, 2014).

collaborative activities (to determine the experimental group).

In order to monitor the effect of the experimental treatment in the experimental group the analysis of variance for repeated measures (ANOVA) was used. In this research, the experimental treatment refers to collaborative learning environment and application of tools for collaborative learning and assessment (Figure 1).

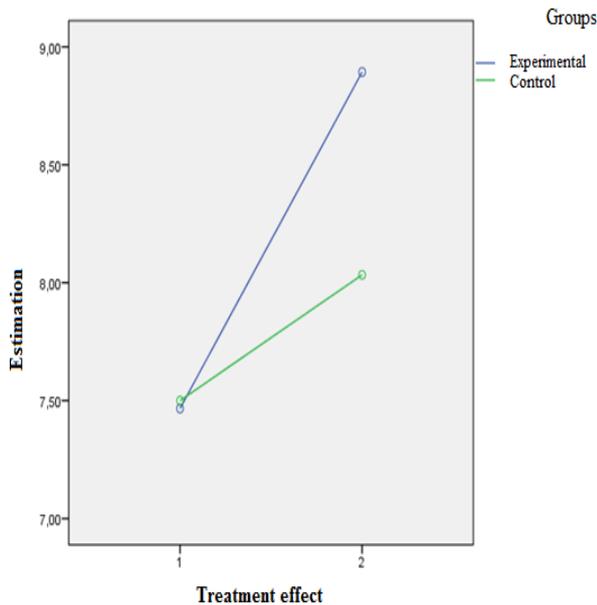


Table 3 Treatment effect for collaborative activities

	F	df	p	η^2
Treatment	49,35	1	,000	,324
Treatment and groups	10,25	1	,002	,091

We can observe in Table 3 on the basis of analysis of variance for repeated measures that there is a statistically significant treatment effect or the effect of collaborative activities ($F = 49.35$, $df = 1$, $p < .05$, $\eta^2 = .324$). We can say that we achieved the effect of collaborative activities and there is progress in the final test in comparison with the input test. There was a statistically significant effect of treatment groups (experimental - control) ($F = 10.25$, $df = 1$, $p < .05$, $\eta^2 = .091$).

It follows from this that progress has been made with the help of collaborative activities, while in the Figure 1 we note that progress has been made from the input to the final test. From Figure 1 we can see that there has been the effect of cooperative activities in the experimental group,

i.e., there is a significant difference between the entrance test and final test, much more significant than the differences between the entrance test and final test of the control group. We conclude that the treatment of collaborative activities has led to advances in the academic achievements of the experimental group.

CORRELATIONS

The highest correlation value is achieved compared to wikis and estimates the final test, a minimum between writing blog and the resulting number of points in the final test. Significant and noticeable height correlation is realized in the relationship workshops and assessments on the final test, and evaluation workshop on the organization of essays, forums and marks on the final test. Wikis did point to a good correlation with the score of the final test, but showed low i.e. negligible value in relation to the assessment of the content. The weakest correlation is shown in participating in writing a blog with the number of points in the final test.

Table 4 Correlations

Correlation	r
workshop – mark in the final exam	0,502
workshop – mark of the organization in the final exam	0,522
forum– mark in the final exam	0,476
forum – mark of the organization in the final exam	0,130
wiki – mark in the final exam	0,904
wiki – mark of the content	0,368
blog – number of points in the final exam	0,021

CONCLUSION

Statistical analysis showed that there was correlation between participation in peer assessment activity and the grade in the final

exam ($r=0,502$) and correlation between peer assessment activity and the grade for the essay organization in the final exam ($r=0,522$).

It was confirmed that the students who participated in collaborative activities showed continuous development in writing. Furthermore, they performed better in the final test when they had to write an argumentative essay. The students particularly showed good results in compositional organization, mainly in using the funnel introduction, formulating the topic sentence and controlling idea, providing good supporting details. After ten weeks of collaborative practice, the shape and internal pattern of their essays became clearer, and organizational skills were more adequately controlled.

Workshop in this research was used as the main tool for developing writing skills. Workshop is connected to the concept of collaborative learning because students can evaluate their own work and compare their scores with the scores given to them by another participant (a teacher or a student). Self-assessment is an important aspect in the development of critical thinking and fosters the autonomy of students.

Also, an important aspect of this research is shifting the focus from the traditional concept of a teacher as an instructor and evaluator to the students' new role. Student become evaluators and give each other explanations. Collaborative learning has a major role in distance education and the tools enable students to perform tasks in teams. Besides group work, tools for collaborative learning achieve continuous learning, monitoring and evaluation, which is in line with modern concepts of formative assessment, i.e. assessment for learning instead of the traditional assessment of learning. Moreover, the advantages offered by the distance learning are reflected in the fact that a teacher alone does not participate in the evaluation process, but also the students themselves develop an awareness of assessing the knowledge and achieve autonomy in learning. The teacher in this approach becomes a moderator who directs and monitors the process.

Theoretical contribution of this research is redefining the existing cognitive processes writing model. It suggests adding collaborative elements both to the prewriting phase and first draft phase. Because of the great emphasis it puts

upon collaboration and peer learning, this model is called socioconstructivist writing model of cognitive processes.

Practical aspects of the research refer to organizing classes for teaching writing skills: how to implement distance learning courses and how to apply socioconstructivist writing model of cognitive processes. Moreover, the valuable part is the designed ten-week Moodle course with SCORM created lessons, as well as one of the most detailed checklists for assessing writing (both for paragraphs and essays).

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