


Research Article

# The Impact of Problem-Based Learning on Teaching the Aspect of Audience in ESP Writing

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**Abstract:** The main aim of this study was to test the influence of problem-based learning (PBL) on the teaching of students' writing skills in English for specific purposes (ESP). There is very little research available that deal with specific aspects of writing, global and local, and their connections with the teaching method because researchers generally only test overall improvement of writing skills. According to the stated problem, goals and tasks, the research was performed by causal method – experiment with parallel groups. The experimental (treatment) group learned about the basic features of business writing according to pre-planned PBL teaching units. The same content was also taught in the control group by lecturing and illustrative teaching methods. Given the results, we can see that the experimental group had more pronounced trait score 2 for the aspect audience at the initial measurement, experimental group had more pronounced feature of score 4 at the final measurement. Student papers on the final measurement are fully compliant with audience, their status and relationship with the writer; i.e. tone, word choice, document type fully correspond to a given audience with the appropriate level of formality for a given audience. The results of t test for paired samples indicate that learning through problem solving is very useful if you want to develop aspect of audience in ESP writing as it encourages the development of higher-order intellectual skills and creative thinking, which are related to the global aspects of writing.

**Keywords:** problem-based learning (PBL); ESP writing; audience

## 1. Introduction

There is greater complexity when it comes to target readers and the purpose of writing in the workplace, as opposed to writing classes at the school, where the tasks of writing are directed to the main reader – the teacher, and only for one purpose – assessment of knowledge. Therefore, it is unlikely that the skills acquired in writing classes and knowledge of some general principles will be sufficient to help students in work contexts outside the classroom.

Jones (1982) found that the majority of courses for students for whom English is not a native, failed to teach students about the audience and how audience shapes their writing and that students' prior knowledge (cultural, language and life experiences) helps students to write appropriate for the target audience. According to Hyland (2004), this type of instruction can be used when teachers have sufficient knowledge about the cultural contexts of different genres are used. This knowledge, combined with approach oriented to the genre, facilitates the ability of teachers to use students' prior knowledge in learning about a new genre (Hyland 2004, pp. 55-56). Similarly, the approach based on the genre can serve as a tool for students for whom English is not their mother tongue acquire a comprehensive understanding of the demands of the audience in academic and professional contexts (Hyland, 2004, p. 43).

In addition, there is very little research focusing on the development of specific aspects of writing, both global and local, and their relation to the type of instruction, since researchers most often examine only the overall improvement of writing skills. Certain authors (Davidson, 1998; Rollinson, 2005) argue that higher-order intellectual skills (analysis, synthesis, and application of ideas and information) are reflected in the global aspects of writing, which are mostly conceptual and structural, and are therefore referred to in the literature as higher-order concerns. Higher-order concerns represent the “big picture” of

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writing, such as content and focus, purpose and audience, and organization. Lower-order concerns, also known as local aspects, are less related to meaning and more to “correctness,” that is, grammar, style, and mechanics. Due to studies showing a connection between problem-based learning (PBL) and the development of higher-order intellectual skills and critical thinking, PBL is more strongly associated with global aspects of writing than with local ones (Davidson, 1998; Rollinson, 2005). These authors assume that the increase in students’ critical thinking in writing skills is most clearly manifested in the global aspects of writing, since critical thinking skills are by their nature more focused on the global aspect and the presentation of ideas (Davidson, 1998; Rollinson, 2005).

The study aims to determine how different didactic and methodological organization of education contributes to the adoption of writing skills within the frame of English business language. Therefore, the paper aims to determine how the experimental factor (PBL) affects the teaching to be efficient and rational, motivates and encourages students to acquire knowledge in a relatively autonomous way, intensifying research and analysis of the phenomena studied, training for permanent self-education.

The general hypothesis (Ho) in our study could be formulated as follows:

(Ho) – By implementing a PBL model achieved better results in teaching the aspect of audience in English for specific purposes (ESP) course are achieved rather than by traditional teaching.

Specific hypotheses

H1. There is no statistically significant difference between the initial and final measurement in the experimental group in the degree of adoption of aspects of audience.

A1. There is a statistically significant difference between the initial and final measurement in the experimental group in the degree of adoption of aspects of audience.

H2. There is no statistically significant difference between the initial and final measurement in the control group in the degree of adoption of aspects of audience.

A2. There is a statistically significant difference between the initial and final measurement in the control group in the degree of adoption of aspects of audience.

## 2. Literature Review

Perhaps due to its pragmatism, the desire to respond to academic and professional needs of the target students, as well as the lack of well-developed theoretical background, ESP relies on a variety of philosophical and theoretical assumptions (Hyland, 2003; Swales, 1990). Currently, ESP develops in three directions that overlap: socio-discursive, socio-cultural, and socio-political. Socio-discursive approach stresses genre analysis theory and pedagogy based on genre, socio-cultural focuses on the theory of situational learning, while socio-political emphasizes theory and application of critical pedagogy.

Genre analysis means that texts are always a response to the environment in which communication takes place, and tries to find out the purpose and functions of linguistic forms in texts. The writer has certain goals and intentions, as well as the relationship with the readers. Therefore, every text bears writer goals and his expectations about how information should form a relationship between a writer and the reader (Hyland, 2004).

Curricula based on genre (Feez according to Hyland, 2003) organized classes around the genres that students need to learn and social contexts in which they will work. This implies a pedagogy that leads students to control key genres on the basis of whole texts, selected in relation to the needs of students. In teaching ESP this implies an active and continuous support of teachers who models the appropriate strategies to meet the special purposes, guides students through the use of strategy and provides meaningful and relevant contexts for the use of these strategies.

The fact that genres are an essential part of the context in which they are used, combined with their fluidity and dynamism, arises the question whether they can be taught and how. Friedman (1993, p. 233) looks at the adequacy of explicit instruction in the case of professional genres and argues that the complexity of the language is not adequately described, and even when the rules are known, their number and complexity means that they can not be taught in language courses. She also speaks of the danger when a teacher who is not from the practice tries to explain the rules of the genre. This is a good reason not to teach genre explicitly. Knowledge of the genre comes through performance, a perfect situation for the adoption of professional genres is when a student learns from the more experienced colleague within the community in which he aspires to become an expert (Berkenkotter & Huckin, 1995).

Socio-cultural approach the necessity of inclusion in the target situation (Belcher, 2004) led to socio-cultural approach in ESP. Based on the theory of social constructivism by Vygotsky socio-cultural approach emphasizes the fundamental role of situational learning and gradual scaffolding. Situational learning is the theoretical approach in which students learn within certain contexts, usually in the context of the workplace, that is, refers to the learning that takes place in the same context in which it will be used. It was designed by Lave and Wenger (1991) as a model of learning through practice as a member of clearly defined linguistic and social communities, communities of practices.

Since students are involved in a community of practice, they familiarize themselves with the beliefs and behaviors that are practiced in the community. Situational learning is usually unintentional. Students do not fall into a situation expecting to learn what they do. Main idea is that learning and knowledge are context specific and that learning is achieved through participation in this context. For students with language barriers and low literacy, that inclusion is not enough. Educational institutions are not sufficiently equipped to provide gradual cognitive training (scaffolded cognitive apprenticeship) (Belcher, 2004). The important perspective of situational learning is legitimate peripheral participation (Lave & Wenger, 1991), which means that students are on the margins of a community of practice while the central position is occupied by old experienced members. During learning, the student moves toward the center, toward the groups that are more powerful in the community.

Critical pedagogy views language as a form of social practice and links language with the activities that surround it, focusing on how social relations, identity, knowledge, power, build through written texts. It attempts to demonstrate that discourses are not transparent, but they regulate knowledge, social relations and institutions. Critical discourse analysis examines how texts relate to social issues related to the distribution of power and knowledge, emphasizing the relationship between discourse and ideology.

Raising critical awareness of students includes discussions with students about the norms and communicative practices in targeted communities, encouraging students to criticize the negative aspects, making them aware of ways to change or modify the situation so to better position themselves in relation to it. Critical pedagogy (Basturkmen, 2006) is an attempt to avoid the simplified and formal approaches to the writing of specialized texts and learning predetermined target genres. It puts more emphasis on understanding the context by research it, the promotion of awareness and autonomy of students.

### 3. Materials and Methods

#### 3.1. Procedure

As part of the diagnostic activities, the students wrote letters that were used as an initial test for ascertainment of their skills of writing business correspondence. The final measurement was performed a few days after the end of the experimental work. Students had 45 minutes to write a letter that was used as a final test for the determination of the final status of their writing skills. Final test, as well as the initial measurement, was carried out simultaneously in the experimental and control group.

The experimental group learned about the characteristics of business writing audience according to pre-planned teaching units, prepared according to principles of PBL implementation. Based on the results of theoretical analysis of PBL, we concluded that the most effective teaching unit is implemented in the following order:

1. Set up the problem (problem situation);
2. Defining the problem;
3. Hypotheses;
4. Decomposition of the problem (the main breakdown on the immediate problems);
5. Troubleshooting (verification of hypotheses);
6. Conclusions;

The same content was taught in the control group (96 members), but by lecturing and illustrative teaching methods. In the control group we did not make any special teaching units, but the teacher exposed and explained the subject matter. The teacher has verbally presented content, sometimes explaining the difference by showing examples of well and poorly written business documents.

#### 3.2. Participants

The study included 194 second year students at the Novi Sad Business School. The

experimental group had 98 members while the control group included 96 students. Students attended the subject Business English II.

### 3.3. *Methods, Techniques and Instruments*

According to the research problem and questions, the study was performed causal method - experiment with parallel groups. Under this method was applied valuation techniques. Assessment was conducted by instruments for initial and final measurement and analytical scoring scale.

Due to the specific linguistic structure which we studied, we have opted for a written letter as material for the initial and final measurement. One of the assumptions when it comes to teaching writing, is that if we limit the length of essays (expressed in number of words) we will increase objectivity because we equalize the conditions under which the essay writing takes place (Weigle, 2002). Therefore, we set the requirements for students that the composition does not exceed 150 words. The time limit was 45 minutes. Topics are selected from their textbook. On the initial test we asked students to write a cover letter while on the final test required a letter of request.

According to Weigle (2002), another key component of writing skills assessment is choosing scoring rubrics. Types of scales for assessing are primary trait scales, holistic, analytic. Primary trait scale is specific and defines only a certain aspect and can be applied only to a specific assignment, while holistic and analytical can be applied to any assignment. Holistic scale gives only one grade, while the analytical scales evaluate several aspects of a written task. Reliability of analytical scale is much higher because the reliability increases with a larger amount of data. Also, analytical scale is more suited to students of English as a foreign language (EFL), as different aspects of writing develop at different rates. Inexperienced assessors understand better analytical scale since each criterion is specifically explained (Weigle, 2002).

This paper is part of a doctoral dissertation that deals with research of effect of PBL on the development of local and global aspects of writing. With regard to research question, we choose an analytical scoring scales in which the aspect of audience is only one element. The scale is used to assess the work of students before and after the implementation of the experimental program. Students' papers were given marks from 1 to 5 for each of the analyzed aspects: style, organization, grammar, mechanics, purpose, audience. After creating PBL teaching units for every aspect in which we defined the key features of each aspect, we started writing descriptors in a scale, i.e., we explained the value of each rating on the scale. Descriptors of the scale are defined based on the characteristics of a particular aspect mentioned in the teaching units.

Since the instrument in assessment was analytical scale, raters were required to evaluate the initial and final test. In addition to the author, raters in the study were two teachers who have experience in teaching Business English.

Since many social research are based on the use of one method of research but there are limitations associated with this method, or a specific application of these methods, the triangulation offers the prospect of increasing the reliability of the results. Triangulation involves the integration of various data and the integration of theory and methods, and even comparative studies by several researchers in order to arrive at a precise description of certain social phenomena. Triangulation of researchers involves using several different researchers or evaluators in the evaluation process. In addition to the authors, assessors in the survey were two teachers who have experience in teaching business English. In order to equalize, evaluators discussed among themselves the scale and agreed to fully understand the criteria. Reviews of all three assessors will be agreed by factor analysis (R) multiple correlation for non-parametric data. All tables (factor analysis results) that are mentioned in the paper but do not appear in the paper, author can provide for an insight.

## 4. Results

Given the results, we can see that the experimental group had more pronounced trait score 2 for the aspect audience at the initial measurement, experimental group had more pronounced feature of score 4 at the final measurement. Unlike the initial measurement, students are fully aware of their audience, what information audience needs and what they will do with that information, i.e., what they know, what they should know what they want to know, how they will react, what we want them to do after they read the letter. Student papers on the final measurement are fully compliant with audience, their status and relationship with



the writer; i.e. tone, word choice, document type fully correspond to a given audience with the appropriate level of formality for a given audience. Tables 1 and 2 show numerical and percentual representation for the audience aspect in the experimental and control groups.

**Table 1.** Numerical (n) and percentual (%) representation for the audience aspect in the experimental group.

EXP	audience-1		audience-2		audience-3		audience-4		audience-5	
	n	%	n	%	n	%	n	%	n	%
initial	7.	7.1	73.	74.5	14.	14.3	2.	2.0	2.	2.0
final	3.	3.1	48.	49.0	19.	19.4	26.	26.5	2.	2.0

**Table 2.** Numerical (n) and percentual (%) representation for the audience aspect in the control group.

CON	audience-1		audience-2		audience-3		audience-4		audience-5	
	n	%	n	%	n	%	n	%	n	%
initial	10.	10.4	47.	49.0	23.	24.0	10.	10.4	6.	6.3
final	8.	8.3	43.	44.8	28.	29.2	12.	12.5	5.	5.2

In relation to the aspect of the audience, the control group has no defined properties at the initial and final measurement.

T test for the experimental group (table 3) showed a significant difference ( $p < 0.005$ ), but difference in the control group (table 4) is not significant ( $p > 0.005$ ). Based on the value of  $p = .000$  the hypothesis H1 can be rejected and we can accept the alternative hypothesis A1 which means that there is a difference between the experimental groups at the initial and final measurement.

**Table 3.** Results of the dependent samples t test for the experimental group.

EXP	Test		Mean		t	P
	initial	final	2.173	2.408		
					-4.070	.000

**Table 4.** Results of the dependent samples t test for the control group.

CON	Test		Mean		t	P
	initial	Final	2.531	2.614		
					-1.422	.158

Based on the value of  $p = .140$  there is no reason not to accept the hypothesis H2, which states that no significant difference between the initial and final measuring in the control group in the aspect of audience, that is, students who have not been exposed to PBL have not improved their business writing audience.

## 5. Discussion

The study results show that PBL is an appropriate method for developing written communication and thus contributes to development of students writing skills for their future careers. The results suggest that the work of students in the experimental group showed

An important implication of these findings is that although the literature states (Davidson, 1998; Rollinson, 2005) PBL classes encourage the development of higher-order intellectual skills and creative thinking, which are related to the global aspects of writing.

The results were expected given that the PBL is a modern method, very close to the principles of post-process theory, principles of collaboration and active learning, and as such, according to Breuch (2002) contributes to the development of writing skills in ESP because it is concentrated on the social, contextual even political forces surrounding the writing process.

Most likely, explanation of positive results can be found in common principles of PBL and EFL methodology. With the introduction of PBL successful active learning is achieved, which provides motivation for learning, because it is interesting and at the same time provides an opportunity for the adoption of all language skills (Sidenko, 2006). PBL uses authentic materials (Brown, 1994), and encourages students to use language in meaningful contexts because it allows the student to develop a successful aspect of audience in teaching writing in the language of the profession. As mentioned by Jones (1982), during the problem-solving task, students feel the need to communicate with each other. In other words, students

naturally communicate in order to solve the problem. In this way, when troubleshooting the students do not learn the language but acquire it, since they do not think about language but try to communicate during the activity (Krashen, 1982).

Also, these results are consistent with a study by Ferris and Hedgcock (2005, p. 53) who believe that the reading of texts help students understand the various elements of writing, including the rhetorical structure and stylistic features. To resolve problem situations, students have to think, discuss, highlight and check the hypothesis, as well as read additional literature. Reading and analysis of the audience of authentic texts can help students to adopt aspects of professional writing audience. Better results in the experimental group can certainly be attributed to the fact that students have to read extensively, with the understanding that it would collect the information needed to solve the tasks within the PBL class. Krashen (1982) suggests that the writing ability is more connected with reading than listening and that knowledge of a certain genre is a result of exposure to reading different types of writing. In his opinion, writing skills are gained in the same way that we acquire speaking skills, by understanding written discourse and internationalization through exposure to numerous conventions that characterize the texts and suggested.

A large number of scholars agree that the students with different levels of knowledge develop through group work (De Grave et al., 1999; Evensen & Hmelo, 2000). Group work can optimize student participation. Students of different abilities naturally find their level and method of operation. Better students could help weaker (De Grave et al., 1999). In other words, the weaker students can hear what better students say, and better students improve their knowledge through the need to paraphrase and explain. By learning in this way, better students provide good models of language performance in learning to weaker students. In our study, students in the control group were better, weaker students had been able to successfully operate the same types of activities with the help of peers which is certainly one of the factors causing the students in the experimental group improved writing skills.

In addition to working in a group, students in the experimental group had the opportunity to use the language and to apply it in contexts and functions such as encountered in real situations at work. Problem teaching provided an opportunity for students to conceive, conceptualize targets and elements of writing, and the possible ways in which these objectives and certain aspects of the writing can be achieved in similar situations. Through learning through problem solving, classes had more sense, which led to improvements in students' writing skills of the experimental group.

In this study, students are provided with conditions for collaborative learning at every stage of their learning. To begin with, the students shared their known and unknown areas with their friends. Then, they had to set their own learning goals, seek information, exchange information with their peers, and summarize solutions. Most importantly, the students had to share the successes and failures in the preparation, writing and revising tasks until the tasks were successfully done. It can be seen that all the steps involved collaborative learning that promotes active communicative interaction among students. Therefore, it can be interpreted that PBL promotes a high degree of interaction and cooperation, which, to some extent, gradually led to better results in the experimental group.

PBL was designed for students to achieve a high degree of self-directed learning because they have to plan and manage every step of learning very carefully. Thus, self-discipline plays an important role for the success in problem solving. In other words, success in learning depends on the responsibility of students. Evensen and Hmelo (2000) point out through self-directed learning, students are encouraged to regulate and manage their own learning. From the above evidence, it could be said that learning based on problem solving develops discipline and accountability. Since students have limited time to search for information, prepare a draft for writing, and revising the draft, the role distribution is crucial and the duty of the students is to be well organized. Therefore, we can say that the students of the experimental group achieved success in learning through the development of self-discipline.

Finally, the most likely explanation of positive results in the experimental group is a great closeness of PBL and situated learning. PBL offers the possibility of cognitive apprenticeship, which helps learning in the field, providing students the opportunity to acquire, develop and use cognitive tools in authentic activities in the field. Learning occurs through social interaction and collaboration, and social construction of knowledge. With the help of PBL, constructivism and collaborative approaches to teaching and learning, and the expanded understanding of the role of teachers, teachers of ESP are finding new ways to take advantage of classes on site.

## 6. Conclusions

Implementation of PBL is just starting to be tested in areas such as ESP. This research has contributed to the field, providing an alternative functional approach in the literature of the ESP. Research has shown that learning aspects of writing based on PBL deserves further implementation in the courses of ESP, because in this way teachers facilitate the practical application of the language through a series of thematically-organized tasks. PBL recognizes the needs of students in terms of the communication, the communication environment, means of communication, language skills, functions, structure and puts precisely these needs student at the center of teaching foreign languages.

In conclusion, although the PBL does not appear in the literature of EFL, many of the ideas and principles of PBL have already been incorporated in the teaching of foreign languages. However, given the specific characteristics of language learners (for example, the level of knowledge, time constraints and motivation), some of the principles of PBL must change and adapt to the disciplines, and at the same time shows the essence of the PBL.

**Supplementary Materials & Data Availability Statement:** The paper containing the PBL based teaching unit on teaching the aspect of audience can be downloaded at:  
<https://pedagoskastvarnost.ff.uns.ac.rs/index.php/ps/article/view/24>

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