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# PBL as a Tool for Teaching Languages

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## Abstract

This paper presents the findings of a mixed-methods study based on an experiment testing a pedagogical method PBL (Problem Based Learning) in teaching French oral and written communication skills.

The primary aim of the experiment was to develop students' French oral and written communication skills, using Problem based learning (PBL) methodology. The second aim of the experiment was to develop professional skills, such as critical and analytical skills, autonomy and decision- making skills, social as well as problem solving skills.

The experiment involved a group of 9 undergraduate students, with a A2/B1 level in French and was conducted in the middle of the Spring semester 2021, at a University of Applied Sciences in Helsinki, Finland.

The study involved application of qualitative and quantitative data collection methods. Data was collected using teacher's observations, followed by a feedback survey, provided by the students. The teacher's observations involved monitoring the learning process, following and assessment of students' research notes and professional assignments, as well as their participation during tutorial discussions. The students' feedback survey provided information on the students' learning self-assessment, as well as their assessment of the learning method.

The findings and results of the data analysis demonstrated that the PBL method proved very effective in developing the students' language skills. It also allowed the students to expand their professional skills by exposing them to realistic, albeit simulated, professional situations. In addition, the students' motivation, and the level of autonomy increased. The students also demonstrated better understanding and assimilation of their learning.

Future studies involving larger samples of participants would provide more information and insights into the value of PBL in language teaching.

Key words: Problem Based Learning (PBL); Language learning; Professional skills.

## 1 INTRODUCTION

As the students' interests and their needs to meet the expectations of the business world are constantly changing, teachers need to question the role of language learning in educational programs, as well as the forms and contents of the learning, in order to keep it motivating, relevant and useful for the students [1]. The author also points out that "students today have much less time in which to acquire knowledge of another language as one small part of their education" [1, p.10]. Besides, the globalization has multiplied international contacts which demand from students the ability to communicate efficiently with those who speak, think, act and react differently.

In view of the above, language teachers need to provide students not only with language structures and vocabulary, for personal and career purposes, but also with opportunities to develop and strengthen their communication skills. These include not only oral and written skills in a given language, but also empathy and active listening. In addition, such skills as autonomy and decision-making skills, problem-solving, and critical thinking and analytical skills are also of pivotal importance.

Introduced in the early 1970's in North America, in the health sciences curricula [2], PBL was defined by Walker et al. [3, p.7], as "an instructional learner-centered approach that empowers learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop a viable solution to a defined problem". Additionally, PBL was identified as aiming to develop problem - solving skills through a self- directed learning [4], and helping students to develop skills, such as "information search, analysis of information and capacity

to find the essential, applying knowledge, problem recognition, critical thinking, creative problem solving, argumentation skills, presentation skills, self-confidence, respect for others, teamwork and cooperation skills” [5, p.13].

In addition, PBL has been identified as supporting development of mathematical problem-solving ability and self-confidence within secondary education [6], teaching approaches to sustainability within higher education [7], and computer programming skills within higher education [8], to name a few. Dutch et al. [9], highlighted that whereas traditional methods revolve around content-driven lectures with the emphasis on abstract concepts, PBL on the contrary revolves around concrete examples and applications. According to Larson [10], students in PBL classroom environment improve their social skills as they have more opportunities to use and practice the language for authentic communication. PBL requires the students to engage in active and self-directed learning strategies. Therefore, PBL renders itself more than an appropriate pedagogical tool for language teaching, and offers a paradigm shift from teaching and learning in a traditional way.

Through individual research, the students “engage with a problem with whatever their current knowledge/experience affords” [11, p.12]. Besides the opportunity for the students to use and develop their oral, reading and written skills, PBL displays another significant advantage over traditional learning methods: the change of the role of the students as learners. Students take responsibility for acquiring and developing their knowledge, as they seek actively the relevant information they need. This prepares them for social construction of knowledge, implemented in group discussions, facilitated by a teacher (i.e., so-called tutor). In the group discussions knowledge is shared, co-constructed and a collective and satisfying solution to the problem is found [10], whilst maintaining a high level of student engagement in learning the expected content [12]. Moreover, regarding the assessment techniques, the traditional approach focuses on recall of information and facts, whereas the PBL approach challenges the students to perform at higher cognitive levels of understanding [9].

However, although widely recognized as an effective method, and applied to various subjects, PBL as a pedagogical approach in language teaching has been limited. [13 & 14]. The reason for that was mainly because of time constraints, the necessity to reorganize the course curricula and the difficulty to teach a foreign language and find a specific and appropriate content at the same time [10].

However, as Dutch et al. [9], rightly pointed out, the didactic instruction keeps the students in the role of passive receivers of knowledge, whereas the real and deeper learning should be based on the discovery and the experiencing of the knowledge. This discovery needs to be nonetheless guided and mentored. In this regard, the PBL tutorial sessions provide a clear and safe framework. Each PBL session (tutorial) has the same structure and a step-by-step process. This offers the students opportunities to learn from constructive feedback and improve their performance in the following sessions. Despite the same structure, the content of each tutorial is different, initiated by a *trigger*. The trigger can take a form of an audio and/or visual material, and article, picture, short text created by the teacher, or a story which the students can relate to [5]. The purpose of the trigger is to raise questions in order to inspire the learners to explore new topics. Larsson [10] stresses the necessity for the trigger to provide a challenging and relevant content, as closely as possible connected to the students’ reality, to remain interesting. The teacher takes the role of a tutor, guiding the learning process through questions, ensuring a safe and positive environment as well as the learning of the content.

## 2 METHODOLOGY

The study was conducted in Spring 2021, as part of a 5 ECTS communication course French 4, which aimed at developing the students’ oral and written communication skills through topics related to their students’ life. The number of participants for this particular course is usually rather small (10-15 students), which supports the application of PBL approach. The PBL tutorials (two tutorials, altogether five sessions lasting of 1,5 hours each, and comprising two triggers) have been implemented in the middle of the course. This timing was purposeful to ensure a familiar, trustful and respectful atmosphere among the students, thus creating a positive group rapport. It also prepared and equipped the students with argumentative vocabulary and activities, to guarantee a sufficient command of the language to keep up their creativity and motivation. Placing the PBL in the middle of the course also gave the teacher a better understanding of the group’s level and dynamic.

During the first session, the PBL 8-steps and the roles of the participants were explained. The tutorials followed the 3 stages: the opening session, the personal study, and the closing session. Each stage used different steps. The first stage followed steps 1 to 5: studying the trigger, identifying the main problem, brainstorming, classifying and categorizing, and finally determining the learning objectives (the research sub-topics).

During the second stage (step 6), the students carried out research individually in order to study the learning objectives and answer the problem. The last stage, following steps 7 and 8, consisted of discussing and sharing the findings, and in receiving feedback.

In the first tutorial session also the roles of the participants were allocated. These were: the discussion leader, the recorder, and the observer. The discussion leader followed the agenda, lead the discussion, and ensured everyone's equal participation. The recorder kept a record of the proceedings, and summarized the discussion. The observer followed the performance of the participants during the discussion and gave constructive feedback to the group as a whole and to each individual participant. Additionally, students were provided with various templates, which were used by the discussion leader (agendas for opening and closing sessions, by the recorder (memos for opening and closing sessions), and the observer (feedback form) and by the all group (PBL's notes format). Each document was uploaded to Moodle (the school's learning platform) before the following session. The documents were evaluated by the teacher, as well as the participation during the discussions, using various criteria to assess the language and the content.

During the discussion the group shared the knowledge generated by research carried out prior to the tutorial session.

The tutor's role was limited to guiding the process only when necessary. In other words, the tutor would only intervene, by asking questions or writing just one word or expression on the board, whenever the group reached a dead end, stumbled, got frustrated or silent, or lost motivation and interest. This little help from the tutor was particularly essential during the opening session, when the group got exhausted or lost. Regarding the closing session, the tutor might have reminded about the steps to be followed. Besides the guidance, the tutor observed the group's dynamic and the input of each individual, regarding the language and the content. At the end of each session, the tutor gave feedback, based on the observations, to the group and each individual.

The two triggers used in the experiment were two short texts written by the teacher, based on her experience regarding students personal and professional needs and difficulties. The triggers were used in place of the didactic instruction, in which the teacher was responsible for delivering the content.

Before creating a trigger, the teacher pondered the question "What do I want the students to learn?". This meant predefining the problem and the learning objectives the students were expected to find and research. For this specific course, the main objective was for the students to practice and develop their oral, written and reading skills, in a motivating and independent way. They were also expected to develop active listening, appropriate vocabulary, and clarity of the speech. In order to provide the best conditions for an open discussion, the triggers were based on relevant topics ("Organizing an efficient meeting" & "French corporate culture"), where the students could see the benefit/value of a possible solution for their personal and professional life. For this reason, the triggers described several small problematic situations, linked to the main problem, the students face or might face in their professional life. As the students constantly work in groups during their studies, will do so in their future work environment those topics are more than relevant. The students might also benefit from learning about the topics during possible exchange trips to France.

The triggers were written using simple vocabulary and structures. Key words and a source of research were provided to guide and help the students with their research. The tutor, in the meantime, guided the students to help them identify the knowledge and experience they already had, and the knowledge they still needed to acquire in order to solve the problem, and complete the assignment.

## **2.1 Teacher's observations**

As the two topics chosen for the triggers were the same as the ones used previously in traditional lectures, it made it easier for the teacher to compare the learning outcomes, using both traditional lecture method and PBL method, from the perspective of activities, process and assessment.

Previously, using the didactic instruction, the teacher delivered the knowledge, placing the students in a passive role where the students did not always understand the benefit of it for their personal and professional growth. Whilst applying PBL method they used concrete tools, such as agenda and memos, and completed their homework and research for themselves and their peers. Even though two participants did not carry out any research for the first trigger, they were able to participate in the discussion relying on their own experience. The feedback from the observer encouraged them to prepare better for the next trigger. The tutor only provided the triggers and guided the discussion.

From the perspective of the process, the traditional pedagogical approach placed the teacher in charge of the learning process. It was focused on completing the homework assignment in order to get grades, whereas the reflection on learning, needs and development were not required. In contrast, the PBL approach, placed the

students in an active role of knowledge seekers, in charge of their learning. The opportunity to take different professional roles challenged and motivated most of the students. They did not need to be pushed to do their homework, they followed the deadlines, produced good content for their research notes and memos. Their performance during the discussion was excellent, and the tutor's assistance was minimal. Out of nine students, only two remained in the roles of team members. The students mentioned later that the use of another trigger would have helped them to assimilate better the PBL process and to take on other roles.

Finally, from the assessment's perspective, the traditional lectures placed the teacher in charge of the assessment, which kept the students in a passive role, as they were neither asked to assess their knowledge nor reflect on their learning. The PBL approach offered the students a possibility for peer assessment as well as the tutor. The responsibility of assessment and feedback was divided among all the participants, students and tutor. The students took the assessor's role very seriously, eager to help their peers to improve, but also to hear what the group thought about their own input.

In conclusion, with the traditional lectures, the teacher was in charge of the learning process and the assessment. As the students' experience revolved around content-driven lectures, emphasizing abstract concepts, they were not able to see the learning value and their development. On the contrary, the PBL approach provided a professional context, with concrete examples and applications which enhanced professional and independent behavior, where students could identify themselves as real professionals, and apply the knowledge. They owned their learning, could reflect on it, which made it deep and long lasting.

### 3 RESULTS

The quantitative, empirical data was gathered via a Webropol 3.0 survey questionnaire. The survey questionnaire was created for this specific experiment. At the end of the two PBL tutorials, the participants were asked to provide some demographic data and to answer questions related to their learning, self-assessment, and the assessment of the PBL's methodology.

The participants were previously informed that their participation in this survey would be and the data would be confidential. Six out of nine participants (5 females and 1 male) responded to the survey (see Table 1). The participants represented 3 different nationalities: Finnish/Russian, Finnish and Spanish. Most participants (83.3%) were familiar with PBL method from other courses, and some (20%) used the PBL method in the language of the course.

**Table 1.** Gender and age of the participants (n=6)

GENDER	n	Percent	AGE	n	Percent
Female	5	83.3%	17-20 years	1	16.7%
Male	1	16.6%	21-30 years	4	66.6%
Other	0	0.0%	31-40 years	0	0.0%
Prefer not to specify	0	0.0%	41 years or over	1	16.7%

**Table 2.** Participants' self-assessment regarding the impact of PBL on the development and improvement of their language skills(n=6)

	1 Not at all	2 A little	3 Sufficiently	4 Considerably	Average	Median
Your reading skills	0.0%	33.4%	33.3%	33.3%	3.0	3.0
Your writing skills	16.7%	0.0%	50.0%	33.3%	3.0	3.0

Your listening skills	0.0%	0.0%	16.7%	83.3%	3.8	4.0
Your speaking skills	0.0%	0.0%	0.0%	100.0%	4.0	4.0
Your grammatical skills	0.0%	66.6%	16.7%	16.7%	2.5	2.0

Table 2 illustrates that the learning outcomes have been reached. Only one of the respondents answered “not at all” for the category “writing skills”, which means that there has been improvement in all categories. All respondents said they developed considerably their speaking skills. The skills which were developed sufficiently or considerably were 1) the listening skills, 2) the writing skills, 3) the reading skills.

**Table 3.** Participants’ self-assessment regarding the impact of PBL on the development of their professional skills(n=6)

	1	2	3	4	5	Average	Median
Self-confidence	0.0%	0.0%	33.4%	33.3%	33.3%	4.0	4.0
Information search	0.0%	16.7%	0.0%	66.6%	16.7%	3.8	4.0
Analysis of information and capacity to find the essential	0.0%	0.0%	16.7%	66.6%	16.7%	4.0	4.0
Applying knowledge	0.0%	0.0%	16.7%	66.6%	16.7%	4.0	4.0
Problem recognition	0.0%	0.0%	33.3%	50.0%	16.7%	3.8	4.0
Critical thinking	0.0%	0.0%	16.7%	83.3%	0.0%	3.8	4.0
Creative problem solving	0.0%	0.0%	16.7%	83.3%	0.0%	3.8	4.0
Argumentation skills	0.0%	0.0%	83.3%	0.0%	16.7%	3.3	3.0
Respect for others	0.0%	0.0%	0.0%	50.0%	50.0%	4.5	4.5
Teamwork & Cooperation skills	0.0%	16.7%	33.3%	33.3%	16.7%	3.5	3.5
Presentation skills	0.0%	0.0%	33.3%	50.0%	16.7%	3.8	4.0

Table 3 shows that regarding the professional development, the learning outcomes have been reached. The answer “no development” was never chosen, which means that the students have developed all skills. Furthermore, the answer “a little development” was chosen only twice, which means that the students have developed all skills to some extent.

The skills they have developed the most were: 1) Respect for others; 2) Self-confidence, analytical skills, knowledge application; 3) Problem recognition, information search, critical thinking, creative problem solving, presentation skills; 4) Team work and cooperation skills; 5) Argumentation skills.

Most of the participants (83.3%) considered PBL to be a good learning method. 16.7% considered PBL a good learning method, but pointed out the importance of good command of English prior to using PBL. The examples of the following participants’ comments illustrate this.

*I think it was fantastic at this level. This is much more useful than studying the grammar as at least, I lack the opportunities to use the language in speaking and in conversation. This also adds a dimension about research and writing about a certain topic. Bravo!*

*I think PBL for language courses is a great tool to develop many skills and get confident in a foreign language. It should probably be used a lot more while learning new languages.*

*The PBL was great mostly because we had to speak a lot with each other and it wasn't too much of a problem because we were all sitting down to attempt the same task, the fact that we're trying to decipher the answer pushes the people speak a lot and discuss.*

#### 4 CONCLUSIONS

This paper presented the findings and results of a mixed-methods study based on an experiment testing a pedagogical method PBL (Problem Based Learning) in teaching French oral and written communication skills, as well as to develop professional skills, such as critical and analytical skills, autonomy and decision-making skills, social and problem-solving skills.

The teacher's observations revealed that within the clear and safe, albeit demanding framework of the PBL, the students, when asked to take on the roles of professionals, and active learners, perform and learn in a professional manner. As the students became more aware of their knowledge and their personal and professional needs, their participation, depending less on the teacher, increased as well as their attitude towards their learning, becoming independent, responsible, deeper and long-lasting.

The students' feedback survey demonstrated that all students developed considerably their speaking skills, but also their listening, writing, and reading skills. Moreover, they all observed a satisfying development of their professional skills, especially respect for others, self-confidence, analysis of and search for information, knowledge application, problem recognition, critical thinking, creative problem solving, presentation skills, team work, cooperation and argumentation skills. Finally, they all recommended PBL as a tool for language teaching. It can therefore be concluded that PBL is an effective method that can and should be used in language teaching. However, particular attention should be paid to the group size, the pre-requisite activities to ensure good command of argumentation, the implementation timing and number for PBL tutorials, quality and relevance of the triggers and finally, the role of the tutor.

Further similar studies, with larger groups of participants will bring more insights, as well as more opportunities for development.

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