The Implementation of the Project-Based Learning Approach in the Algerian EFL Context: Curriculum Designers' Expectations and Teachers' Obstacles

Meriem Baghoussi
Department of English, Faculty of Foreign Languages
University of Abdelhamid Ibn Badis, Mostaganem, Algeria

Ilhem Zoubida El Ouchdi
Department of English, Faculty of Letters and Languages
University of Abou Bakr Belkaid, Tlemcen, Algeria

Abstract
To help learners acquire and develop the necessary skills for the 21st century, Algeria has adopted the Competency-Based Approach (CBA) along with the Project-based Learning (PBL) approach within its educational system. Theoretically speaking, the goal behind such reform is to shift from a content-based to a process-based learning/teaching and thus to make learning more relevant and realistic for students. However, in practice, teachers find difficulties in putting into practice the two approaches. The aim of the present paper is to explore those obstacles that hinder the execution of the PBL approach in the third-year secondary education English classes and to identify to what extent English language teachers master and use PBL methodology in their classes. To reach the aim of the study, the following hypothesis is put forward: teachers lack both training and background knowledge on the approaches that help to implement PBL in classrooms. For the sake of collecting information about the issue tackled in this study, twenty EFL teachers from some secondary schools in Mostaganem city received a questionnaire. The research findings confirm the hypothesis mentioned above. They reveal that teachers neither master nor use the project-based instruction proficiently in their classrooms despite the guidance provided in the third-year pedagogical documents. Those hindrances are due to the lack of professional training and the insufficient theoretical knowledge on the diverse approaches, methods and strategies related to PBL.

Keywords: accompanying document, competency-based approach, project-based learning/instruction, teachers' obstacles, third-year curriculum/textbook

1. Introduction

Before 1962, the French language was widely used in different sectors in Algeria. In the past few decades, the Algerian government decided to use Arabic in politics and education. However, English was first introduced in middle schools as a second foreign language in 2001. Like many countries in the world, Algeria has given English an essential pre-eminence in its educational system. It has been introduced in all levels (middle, secondary and university) because it is an international language and a language that is widely used in scientific and technological fields. The main aim behind its introduction is mainly to face the requirements of globalization and get in touch with all people of the world and to reinforce the international political and economic relations. As the Ministry of National Education (MNE) (2006) points out:

> The aim behind teaching English in Algeria is to help our society to integrate harmoniously into the modern world by getting involved fully and effectively with the world multilingual communities that use this language in all kinds of interactions. Thanks to the sharing and exchanging of ideas, scientific experiments, cultural and economic capital, this involvement will enable a better understanding of oneself and others. In such a perspective, the old and narrow utilitarian conception of English learning will change and thus leading to a more daring approach where citizens will not be consumers, but actors and agents of change. Therefore, everyone will have the opportunity to get access to science, technology, and world culture.... (p. 3)

Since 2001, numerous changes have occurred in the Algerian educational system because of some deficiencies found in the previously implemented approaches, namely the communicative and the teaching by objectives approaches. Due to the rapid change that the educational systems of the world are continually witnessing, new teaching methods and approaches have emerged. Reconsidering the necessity of such change and thanks to the help provided by the Middle East and North Africa (MENA), the UNESCO and the Out-of-School Children Initiative (OOSCI) organizations, the Algerian MNE started to make some other reforms in its educational system in 2003 in order to adapt it to the national and the world requirements. To meet those requirements and to face the challenges of the 21st century needs, learners need to possess some skills like collaboration, creativity, critical thinking and communication. With the help of that reform and the birth of the new approach, namely the Competency-Based Approach (CBA) a noticeable shift occurred. The content-based curricula paved the way for the competency-based one. Since then, the MNE has introduced new curricula and textbooks at all school levels. The approach adopted within all those teaching resources is the CBA, an approach that embraces problem and project-based teaching/learning, learner-centredness, autonomy and some further approaches. Thanks to that approach, both teachers and learners' roles have changed. Learners are no more passive; they become actively engaged and responsible for their learning development. Correspondingly, the teacher's role has shifted from a spoon feeder of knowledge to a mentor, a guide and a facilitator, thus placing learners at the core of the learning process. In such an environment, learners will construct their own knowledge and try to exploit it, when and where necessary, in real-life situations. Since learner autonomy is the main focus of the learner-centered approach, the roles of the teacher and the learner changed. The process has become collaborative where the teacher has become a kind of companion. In this perspective, the Algerian English Framework (AEF), for example, has focused on learners' competencies to encourage them to use higher-order thinking

skills to solve real-life problems. Critical thinking, on the other hand, is also one of the 21st-century competencies that embrace the Project-Based Learning (PBL) approach. Accordingly, during the realization phase of the projects, students are supposed to make judgments and think critically to come to the final product.

Moreover, in order to facilitate the integration of the Algerian learner in the world community and increase the productivity and the efficiency of the educational system, the MNE has also focused on the incorporation of Information and Communication Technologies (ICTs) into schools and universities to help learners to obtain quality projects. Thanks to ICTs, learners can "investigate and construct new meaning. Technology helps them reach beyond the classroom to a community of learners" (Krauss & Boss, 2013, p. 9). So to put a focus on those technologies, the MNE (2006) confirms that ICTs:

- give access the Web to exchange ideas and opinions with all the people of the world through chatting and discussion forums;
- help learners to discover the world and its people, religions and cultures;
- create an authentic context of communication with native English speakers and non-native speakers;
- develop one's autonomy in reflection and action;
- help learners to work within a motivating educational frame;
- give access to various documentation for research;
- encourage learners to use different software to shape their projects;
- improve different technological skills…(p. 9-10).

To highlight the impact of the recent educational reform on English teaching in Algeria, the present study on PBL at the level of secondary school third-year English classes can be a reflective mirror of such impact. It, in fact, attempts to investigate the accomplishment rate of the curriculum designers' expectations and the obstacles that teachers are facing to implement the PBL approach in classrooms. In other words, the work draws attention to both the use of PBL by teachers and whether they are applying it as expected by curriculum designers. In order to explore such an issue, the study will focus on the curriculum designers' expectations and the obstacles that hinder the implementation of PBL.

2. Literature Review
2.1. The Founding Principles of PBL
With the development of research in psychology and neuroscience, the relation between knowledge, thinking and doing becomes clear. Thanks to learning by doing, learners foster and develop their skills and competencies. The community, the peers and past experiences play an important role in the learning process. They also put learners in real-life contexts where learning improves through doing. Today, educationists are witnessing the rapid technological and scientific changes that are taking place in the 21st century. To succeed and face the challenges of the modern world, learners should be equipped with the appropriate and necessary knowledge, skills and competencies. Since the world is a large multi-language, culture and faith community, communication and collaboration have become a necessity. In this context, PBL has emerged,

paving the way to real-life learning experiences and problem-solving tasks beyond the classroom boundaries. There are many definitions and descriptions of PBL. Seen as a pedagogical approach, it helps learners to foster active and deep learning, thus engaging them and allowing them to investigate real-life issues in collaborative circumstances. The Buck Institute of Education (BIE) defines it as a "systematic teaching method that engages students in learning knowledge and skills through an extended inquiry process structured around complex, authentic questions and carefully designed products and tasks" (Markham et al., 2003, p. 4). It is also considered as a means to engage learners in "simultaneous acquisition of language, content, and skills" (Beckett & Slater, 2005, p. 108). PBL is essential for the development of learners' target language, which they will use in various real-life purposes. In such contexts, learners will develop their speaking, reading, writing and listening skills in a natural way (Sheppard & Stoller, 1995).

In addition, in PBL learners are mainly exercising their higher-order thinking skills which enable them to inquire, plan, judge, scrutinize, make decisions, draw conclusions, synthesize, thus allowing them to evaluate the projects they realized on the basis of real-life issues (Blank, 1997; Harwell, 1997; Dickinson et al., 1998; Westwood, 2008). Through projects, learners also communicate and collaborate to find solutions to various real-life issues.

Project-based learning is a way to prepare students for life by enabling them to stimulate and solve real problems. To describe the hallmarks of the project-based approach, Boss & Krauss (2007) acknowledge that:

- Projects form the centerpiece of the curriculum-they are not an add-on or extra at the end of a "real" unit.
- Students engage in real-world activities and practice the strategies of authentic disciplines.
- Students work collaboratively to solve problems that matter to them.
- Technology is integrated as a tool for discovery, collaboration, and communication, taking learners places they couldn't otherwise go and helping teachers achieve essential learning goals in new ways.
- Increasingly, teachers collaborate to design and implement projects that cross geographic boundaries or even jump time zones (p. 12).

2.2. Constructivism: the theory underlying PBL
Constructivism has its origins in the works of Dewey, Kant, Vico and Hegel. It is a learning theory that focuses on how learners construct new knowledge through experience. John Dewey (1933) claims that in solving problem situations, learners vigorously build their knowledge. Hence, students become very active, engaged and motivated learners all along the learning process. Since constructivism mainly focuses on learners' experiences, it becomes an essential agent in the implementation of PBL. Dewey sees the teacher as a nurturer, a facilitator and a collaborator. In this context, "since learning is something that the pupil has to do himself and for himself, the initiative lies with the learner. The teacher is a guide and director; he steers the boat, but the energy that propels it must come from those who are learning" (Dewey, 1933, p. 36). Learning occurs through experience, and a good teacher is the one who lets the learners do and solve real problems by themselves.

Railsback (2002) affirms that "project-based instructional strategies have their roots in the constructivist approach" (p. 6). Characteristically, the principles of PBL derive accurately from cognitive and social constructivism both of which embody the main strands of the constructivist theory. The project-based learning/teaching strategies have their origins in constructivism, an approach which is derived from the works of some theorists and psychologists like Jerome Bruner, Lev Vygotsky, Piaget and John Dewey.

2.2.1. *Cognitive Constructivism*

Cognitive constructivism traces back to the work of Jean Piaget, a developmental psychologist, who believed that learners develop their knowledge and that this development is a biological process. For Piaget, humans construct their knowledge by building it through experience. Each experience enables them to create new knowledge (schema). As Fosnot (2005) notes:

> Piaget describes assimilation as the "acting on" a situation with initial organizing schemes—to make the situation "similar" to the present cognitive structures of the learner. This gets to the heart of constructivism. We know the world through the schemes and structures we use to explore it. Perturbations to these assimilatory schemes cause cognitive reordering (accommodation) (p. 288).

This idea confirms that humans try to construct new knowledge by referring to their prior existing background knowledge. On the other hand, accommodation remains the process of associating previous knowledge (old schema) to a new one. As a result, students cease to be passive recipients who are spoon-fed by their teachers. They rather become active learners who try to make connections with background knowledge and collect new information to create and construct new products. Also, students analyse and make connections between the real world and their own.

2.2.2. *Social Constructivism*

Social constructivism, on the other hand, is a further development of the constructivist learning theory. According to Vygotsky (1978), learning takes place through social interaction in the presence of a More Knowledgeable Other (MKO) - a skilful tutor, a teacher or a parent. The latter can help the learner to use verbal communication. In other words, the learner and the tutor will cooperate and collaborate, a union that leads to the cognitive development of the learner. As long as the social environment is an important factor in learning, learners mainly learn through social interactions with more skilful peers. Another focal point to consider is that the cognitive development revolves around the Zone of Proximal Development. In this area, the learner receives instructions and guidance that help her/him to develop skills s/he will use independently later. In such contexts, learners also develop higher-order thinking skills and strategies. In addition, collaborative and cooperative learning helps less competent learners to evolve and learn from peers who are more skilful. In this context, Vygotsky (1978) points out that:

> The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers (p. 86).

Many different studies have also shed light on the relationship between PBL and Social Constructivism. Furthermore, PBL concepts help learners to learn a language by interacting among learners, with their tutor (Williams & Burden, 1997).

In order to develop the learner's knowledge and skills in project-based learning, scaffolding would be the best way to do so. Moreover, more knowledgeable peers and teachers can give effective scaffolding as an element of project work to reinforce learning and develop both learners' critical thinking and problem-solving skills (Grant, 2002 & Newell, 2003). In a PBL classroom, the teacher teaches learners the 'how' to learn. In this case, the teacher's role shifts from a spoon-feeder of information to a facilitator and a guide. This can help learners to be self-confident and thus motivated to do their best to reach their goals. Additionally, learners become ready to share their thinking by providing feedback to their peers and groups.

To ensure efficacy, a PBL teacher should "facilitate and manage the *process* of learning" (Markham et al., 2003, p. 8). In other terms, teachers must design tasks or activities that promote critical thinking and help students to solve problems and find solutions, especially while they are facing complex situations. In such context, teachers should possess outstanding skills and both "interpersonal and communication skills" (Markham et al., 2003, p. 9) in addition to the capacity to supervise the open-ended learning process.

3. Methodology
3.1. *Method*
To explore the issue of the PBL integration within the third-year secondary school English classes in Algeria, the present study has relied on two research tools: observation during a teaching period of six years and a questionnaire directed to some teachers from different secondary schools in Mostaganem city.

3.2. *Observation*
The exploitation of the researcher's observations in classrooms, especially during the presentations of the projects, has been of a great benefit to the confirmation of the stated research hypothesis of the present work.

3.3. *Questionnaire*
Twenty third-year secondary school teachers from different schools in Mostaganem city received a questionnaire. The latter contained ten closed-ended and open-ended investigative questions. The analysis of the present issue focused on the most relevant answers some of which the present article discusses in details. It is worth pointing out that the questionnaire answers have helped to confirm the findings of the six-year observation period.

4. Findings, Discussion and Analysis
To validate the hypothesis of the present study, a questionnaire was given to twenty secondary-school English teachers from rural and urban areas of Mostaganem. The participants' teaching experience ranged from one to more than twenty years, as detailed in Figure 1. The questionnaire comprises two parts. The first part investigates the teachers' familiarity with PBL, and the second one examines their knowledge on the teaching approaches related to PBL. The

participants were required to answer the questions by writing full sentences and ticking the right box(es) when/where necessary. The central aim of the questionnaire is to investigate the teachers' knowledge on PBL and to find whether they are applying it in their classes or not.
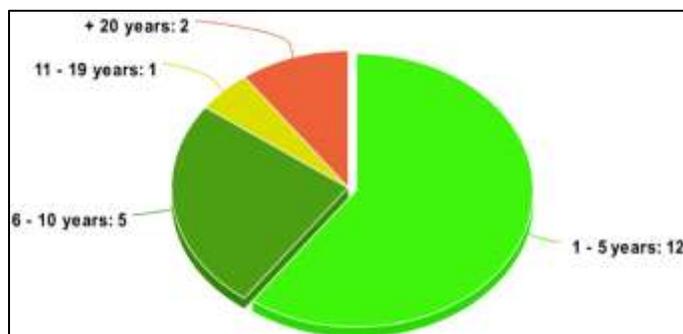

Figure 1. Teachers' number and years of experience

A. *Teachers' Familiarity with Teaching Approaches*

Table 1 reveals that the majority (60%) of the teachers questioned are familiar with the CBA; however, 40% of them confirm that they are most familiar with the CA, OBA and CBA. Referring to the statistics above, it is noticeable that the teachers' familiarity with the CBA records one of the highest rates; a deep analysis of the questionnaire shows that such rate concerns only teachers who have less than seven years of experience. It appears that this category of teachers is more familiar with the founding principles of the CBA. However, only 40% of the informants are familiar with the other approaches, namely the CA and OBA. It is noticeable that teachers who have more than seven years of experience find difficulties in coping with the CBA in their classes.

Table 1. *Teachers' familiarity with the teaching approaches*

Teachers' answers	Number of teachers	Percentage
Communicative Approach (CA) Objective-based Approach (OBA)	08	40%
Competency-based Approach (CBA)	12	60%

B. *Teachers' Tendencies Regarding the Teaching Approaches*

The results in Table 2 confirm the teachers' reticence about the CBA; however, the majority (70%) show a positive attitude towards the CA and feel more confident while using it in their teaching. Their answers clearly demonstrate the reason behind their choice. Most of them say they are well-trained on it. To justify their choice, they confirm that it is less complex and students perform better. Conversely, the ones who opted for the CBA claim that within the CBA teachers have less work and students are more active, creative and autonomous. According to them, the CA embraces an overuse of unrealistic facts.

Table 2. *Teachers' choice of the teaching approaches*

Teachers' answers	Number of teachers	Percentage
CA	14	70%
CBA	06	30%

C. *Assigning Project Work to Learners*

Table 3 reveals that 60 % of the informants answered negatively. They say that they do not assign projects to students because of the lack of time and the lengthy English programme they have to cover before the end of the year for fear that students will have some difficulties in answering all the Baccalaureate exam questions. In addition, students are so swamped with the contents of the other subjects that they lack time for the preparation of the assigned projects. However, less than a half (40%) of the questioned teachers assume that they assign few of the projects the textbook proposes to students.

Table 3. *Respondents' application of project work*

Teachers' answers	Number of teachers	Percentage
Yes	08	40%
No	12	60%

D. *Teachers' Acquaintance with the Term Project-Based Learning*

As illustrated in Table 4, 55% of the informants do not have any idea about what the Project-based Learning approach means. They declare that they do not have a clear idea about it. However, 45% of them say they do, and some of them define it as a way of learning through projects, and the others describe it as a teaching method in which students are assigned projects to help them gain knowledge and develop skills both autonomously and collaboratively. According to the findings, most of the informants are not familiar with the Project-based Learning approach because they have never received any training on it. The statistics in the next table confirm that claim.

Table 4. *Respondents' familiarity with the term PBL*

Teachers' answers	Number of teachers	Percentage
Yes	09	45%
No	11	55%

E. *The availability of Workshops on PBL and their Impact on Teachers' Classroom Practice*

An analysis of the respondents' answers, as illustrated in Table 5, reveals that the majority of them (70%) have never had an opportunity to attend training sessions on PBL. According to such results, it becomes apparent that lack of training on PBL is one of the major obstacles that hinder the implementation of this approach in classrooms. Due to that training deficiency, teachers do not have enough knowledge of such kind of approaches nor do they know how to implement them in their classrooms. Nevertheless, those who have already attended training sessions on PBL attest that they have become more knowledgeable about the importance of project pedagogy in teaching and learning.

Table 5. *The respondents' attendance rate in the PBL training sessions*

Teachers' answers	Number of teachers	Percentage
Yes	06	30%
No	14	70%

F. *PBL Obstacles*

As demonstrated in Figure 2, the majority (90%) affirms that they encounter many difficulties in applying PBL in their classrooms. The analysis of the details of the respondents' answers within this item identifies the textbook inadequacy and the classroom over-crowdedness as the main obstacles to the implementation of PBL (Figure 2). As for the textbook, they claim that it contains units, not projects, and it is over-filled with tasks. Over-crowdedness is another major problem raised by many respondents. They explained that in a class of more than twenty-five students, a teacher finds many difficulties in controlling/managing the class, and if s/he does, s/he will face another issue: a shortage of time. The other obstacles mentioned by the rest of the participants are as follows:

- Deficiency of teacher training workshops on PBL,
- Lack of teaching and learning materials: computers, video projectors, posters, photocopying machines and so on,
- The program structure: content-based and lengthy,
- Unsuitable timing: 3 hours a week for scientific streams,
- Lack of motivation among students with language difficulties.

The analysis of the participants' answers shows that only two of the informants (10%), respectively of twenty-four and twenty-six years of experience, do not find difficulties in applying the PBL approach. They claimed that through years they learnt how to control their students' behaviour appropriately. This evidence implicates that experience plays a significant role in applying the PBL approach, especially in large classes.
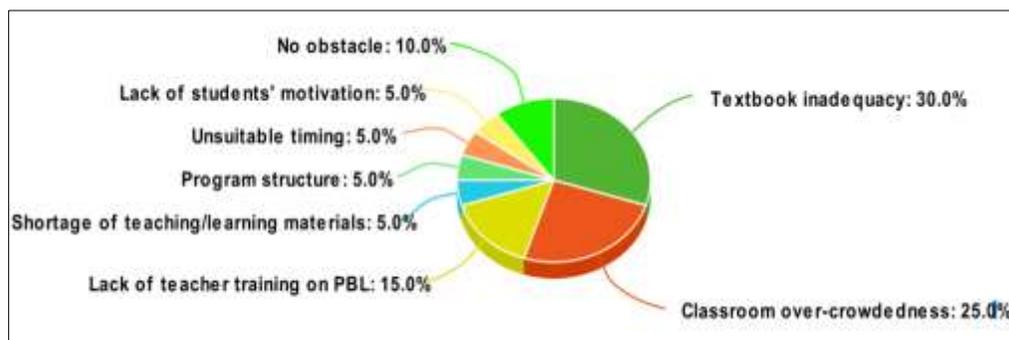

Figure 2. Obstacles to the implementation of PBL

G. *Teachers' Familiarity with Cooperative Learning Methods*

The statistics in Table 7 reveal that most of the informants (60%) are not familiar with the Cooperative Learning methods. However, those (40%) who know what it means, define it as a learning process that does not go in a one-way direction as it used to be with the traditional methods. Instead, they say that it goes in a two-way process: from teacher to learner and from learner to teacher. Although cooperative learning is well defined theoretically, its strategies are not used in large classes because of the noise they may engender.

Table 7. *Respondents' familiarity with Cooperative Learning Methods*

Teachers' answers	Number of teachers	Percentage
Yes	08	40%
No	12	60%

H. *Teachers' Knowledge on the Experiential Learning Approach*

With respect to Table 8, only 5% of the informants do know what Experiential Learning means, but the majority (95%) have no idea about it. The findings affirm that 95 % of informants, who do not have any information on experiential learning, are in need of professional training. One of the teachers, who is familiar with this term, says that the learner is expected to apply what s/he has learnt in class to solve real-life problems in and outside of school. In this particular case, project work is advisable.

Table 8. *Respondents' knowledge on the Experiential Learning Approach*

Teachers' answers	Number of teachers	Percentage
Yes	01	05%
No	19	95%

I. *Teachers' Familiarity with Learner-Centered Teaching*

Table 9 demonstrates that 85% of respondents have an idea about what the Learner-centered Teaching approach is. They define it as a teaching approach that puts the focus activity on students rather than on the teacher. They also add that within such an approach students become more responsible for their learning, thus reducing the teacher's over-presence in class and decreasing theirs. Some of them also explain that when they design the classroom activities in such a way to fit learners' levels, learning styles and interests, they will encourage learners to be very active and cooperative. However, the rest of the informants (15%) have no or an unclear idea about it.

Table 09. *Respondents' familiarity with learner-centered teaching*

Teachers' answers	Number of teachers	Percentage
Yes	17	85%
No	03	15%

J. *The Frequency of Group Work Use in Class*

Table 10 indicates that all the informants (100%) rarely encourage their students to work in groups. Even though the third-year English textbook accompanying document stipulates that group work allows students to support and help one another (MNE, 2011), the statistics reveal that teachers do not give priority to group work. They claim that they avoid asking their students to work collaboratively because of the classroom settings (space deficiency and the large number of tables/chairs) and the noise such strategy engenders, especially in overcrowded classes.

Table 10. *The frequency of group work use in class*

Teachers' answers	Number of teachers	Percentage
Often	00	00%
Rarely	20	100%

5. Conclusion

It is worth to say that the present study is exploratory and illuminative. It is limited to the analysis of the third-year secondary school curriculum and textbook. To limit the scope of the research, the investigation involved only five secondary schools in Mostaganem. Hence the results reported can, therefore, be regarded as being a modest tentative and could not be a generalization. The results discussed in this paper reveal that the way the curriculum and textbook under scrutiny integrate the principle of PBL and thus placing learners at the core of the learning process. Nevertheless, although the two documents are project-based, apparent obstacles hinder their application: the absence of detailed guidelines about the fulfilment of the different kinds of projects in the classroom, and the absence of teachers' training on PBL. Other obstacles like the program length, the crowded classes and the requirements imposed by the baccalaureate exam also hinder the use of PBL in classrooms.

The research results show that the curriculum designers' choice of integrating the project work as a tool of reinvestment and a culminating final product rather than as a central instructional pedagogy is a sound decision. This change would probably help both teachers and learners to shift gradually from the previously adopted teacher-centered learning theory to a learner-centered one. The latter finds its roots in the CBA, an approach that the Algerian MNE has recently adopted within its educational system. In fact, the shift from teacher-centeredness to learner-centeredness and from an unrealistic teaching theory to a real-life project-based theory has not been an easy task, especially in an educational system where spoon-feeding has been, for many years, a common teaching 'myth'. Thanks to that reform, PBL has been given prominence by the textbooks designers. Actually, at the end of each teaching unit, learners are asked to carry out a project in which they should reinvest what they have already learnt in the file/unit.

The PBL implementation in secondary school education is a real challenge today due to the obstacles examined in this research and which the present article has tried to illuminate. However, due to the limited corpus of the study and its restriction to the third-year secondary school students of some high schools in Mostaganem, further future research on PBL implementation in other schools, levels and cycles can hopefully support and confirm the findings of this research. Besides, more advanced observational research methods like interviews with teachers, pupils, inspectors and school headmasters can add more reliability to the present results. If teacher mentors regularly conduct such kind surveys to identify the hindrances teachers are facing in the field, they will be able to intervene accordingly to remedy those weaknesses through regular in-service training workshops, seminars and study days. As for the length of the third-year programme, the MNE has recently advised teachers to start using the planning learning instead of the yearly planning. The former gives teachers some leeway to personalize their teaching and thus to finish the programme before students set for the baccalaureate exam.

About the authors:
Meriem Baghoussi is a Ph.D. student in Didactics and Applied linguistics at Abdelhamid Ibn Badis University, Mostaganem, Algeria. She is also a secondary-school teacher of English. Her research interests center around EFL teaching and Psychopedagogy.
ORCID: https://orcid.org/0000-0001-5694-3364

Dr. Ilhem Zoubida El Ouchdi holds a Ph.D. in Psycholinguistics from the University of Djilali Liabess, Sidi Bel Abbess, Algeria. She is currently teaching as an associate professor at the University of Abou Bakr Belkaid, Tlemcen, Algeria. Her research interests center around Educational Psychology, Psycholinguistics and Cognitive Science.
ORCID: https://orcid.org/0000-0002-3556-8582

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