Implementing Cooperative Project-Based Learning: Difficulties and Innovative Solutions

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Abstract

Cooperative Project-Based Learning (CPBL) is a task-based approach to teaching and learning that enhances students' motivation to learn cooperatively in groups, investigate and respond to engaging tasks to produce a final product when learning English as a Foreign Language (EFL). However, motivating teachers to implement CPBL in their classrooms is challenging. The present study explored challenges and difficulties teachers of English encounter in their attempt to implement CPBL and provided practical solutions to enhance teachers' motivation to adopt it. The participating teachers' perceptions regarding the influence of CPBL on students' English learning were also considered. Significantly, this study applied quantitative and qualitative techniques, which provide the means to determine whether there are connections among the study's variables and, if so, how each one may influence the other. As part of the research process, and to identify the perceptions, attitudes, and opinions of 84 educators, survey instruments were distributed, structured interviews were conducted, and classrooms were observed. The results of the study revealed that only 26% of teachers used this methodology. However, 68% demonstrated positive attitudes towards CPBL as a powerful constructional approach. Considerably, the findings indicate some important implications for course designers and teachers of English.

Keywords: cooperative learning, project-based learning, English as a foreign language (EFL), motivation, innovative learning

1. Introduction

Project-Based Learning (PBL) is a highly considered constructive teaching strategy that can influence students' motivation to learn English as a foreign language (EFL) by cooperating and sharing their knowledge, making use of others' knowledge, foreseeing imminent real-world problems and following scientific methods to solve problematic situations (Chen, Hung & Yeh, 2021). The first appearance of PBL was in the mid-1960s at McMaster University Medical School in Hamilton, Canada (Loyens, Kirschner & Paas, 2011). Cooperative Learning (CL), on the other hand, was defined by Johnson, Johnson, and Stanne (2000) as an instructional approach that involves students working in groups to achieve common objectives, assignments, or projects under the conditions that their criteria are satisfied.

The world of the 21st century is known for its rapid development, which has had a great impact on our lives and will continue to do so in the future (Komljenovic, 2021). Thus, it is important to consider which methodology would be the most effective to handle the changes and equip students with the most needed communication and linguistic skills. Therefore, to keep up with scientific and technological advancements, students' improvements should be maintained. To the extent possible, the development of educational programmes based on the most appropriate methods and their application to science education have become indispensable issues (Nbina, 2010).

Accordingly, to meet the objectives of a 21st-century educational system, students need to have a high level of self-directed learning, critical thinking, and collaborative skills (Kalyaniwala & Ciekanski, 2021). Therefore, it is recommended that educators use methodologies that promote the efficiency of knowledge (Kurnaz et al., 2007).

Recently, there have been certain studies related to new learning environments and modern instructional practices. Studies assert that the PBL approach increases academic achievement by making learning amusing, enjoyable, and meaningful (Gültekin, 2007). Indeed, to make PBL more attractive, this study attempts to combine CL and PBL under the acronym CPBL to empower the teaching and learning of EFL through authentic cooperative projects.

CPBL can be described as a powerful tool for motivating students and allowing them to actively participate in real-life learning situations, giving them a sense of being true protagonists of their learning. Leask (2020) states that instructive establishments should formulate scholars to "live and work in a complex, globalised world" (p. 2). However, one of the most challenging aspects of teaching is motivating and engaging students. Schneider, Dowell, and Thompson (2021) have demonstrated that using cooperative and PBL methods can assist students in improving their motivation and collaborative abilities. This study takes steps toward filling the gap by investigating challenges and difficulties related to this methodology and providing possible solutions that can enhance teachers' motivation to implement it.

Although group work requires a greater effort to help students stay focused on learning to improve the excellence of their tasks, the learning carried out in cooperative environments seeks to promote the development of individual and group skills through the interaction and communication between students in a responsible way. When Jooste and Helete (2017) analyse the concept of universal social responsibility, they propose an educational aim that empowers students to "understand the world and their place in it and become competent, ethical, and responsible individuals with global perspectives in their respective fields" (p. 43). The CPBL methodology is designed to give students these opportunities to broaden their knowledge in real situations when searching for solutions to problems related to their learning of English.

For teachers to implement CPBL effectively, the focus should be on motivating students to implement their knowledge, work cooperatively, and use different tools to search for information to complete their project (Cosgun & Atay, 2021). To fulfil this aim, Walton (2014) highlighted the significance of a teacher's participation in groups of professional development training; collective participation entails a group of instructors from the same school attending a professional practice to facilitate "interaction and discourse, which can be a powerful form of teacher learning" (Desimone, 2009, p. 184).

When students finish their investigation, they present their work to their classmates, teaching the other students how to reinforce what they know and discover what they do not know. The entire CPBL is directed around an open-ended driving question, which is developed by students and connected to the content, a relevant issue, or a problem that fosters an enduring curiosity and hunger for knowledge and motivates them to investigate and resolve the problem (Egbert & Roe, 2014). More importantly, it is recommended that teachers focus on CPBL, reflection, and make a connection to the world outside the classroom to launch useful, wonderful, and innovative projects.

PBL is becoming more widely recognised as a learner-centred pedagogy and a powerful instructional practice based on knowledge of contingent facts about the world (Fernandes, Alves & Uebe-Mansur, 2021). More educators and schools, either in Spain or in other countries, are struggling to adapt the project-based methodology to engage their students toward meaningful, deeper, and motivational learning. However, research on CPBL has not had a considerable influence on CPBL implementation for the following reasons: (1) The majority of the research has been conducted in the last few decades; (2) New teachers are unlikely to have been exposed to CPBL research, nor would they be expected to have taken courses in its theory and practice; (3) There are insufficient accepted backgrounds or theories of CPBL on which professional development could be based; and (4) Much of the research reported may be irrelevant to the concerns of EFL teachers. Practitioners, on the other hand, develop their projects either on their own or in collaboration with colleagues (Jung & Kong, 2017).

In most cases, teachers' knowledge of how to teach cooperatively through projects is incomplete. This is considered one of the most serious obstacles that teachers face when implementing CPBL inside their classrooms, which causes a lack of motivation and interest in this methodology. Almost all teachers ask: "How can they put into practice CPBL in their classrooms?" Assumingly, this is why very few educational institutions use the CPBL approach.

The present study's major objectives are as follows:

1. To explore teachers' perceptions regarding CPBL and its impact on the learning of EFL and if there are difficulties in its implementation.

2. To investigate if exist significant correlations between the study's variables.

3. Provide relevant solutions to the difficulties encountered in order to motivate and inspire teachers to use CPBL in their EFL classrooms.

2. Method

2.1 Research Design

In this study, a mixed-method design in the form of "a concurrent triangulation technique" was used to fulfil the research objectives. Essentially, after collecting both quantitative and qualitative data at the same time and analysing the two databases individually, the researcher integrates or compares the results to "determine if there is convergence, differences, or some combination" (Creswell & Creswell, 2017, p.213). According to this strategy, the main goal of integrating both quantitative and qualitative methods is to place data into a more comprehensive explanatory framework, rather than just seeking agreement amongst the data set (Martens & Hesse-Biber, 2012). Additionally, the qualitative explanatory method focuses on the difficulty of subjective meanings constructed by individuals' experiences, which replicates the participants' perceptions, attitudes, and views of the phenomenon in question (Peng, 2014). Furthermore, by combining two dissimilar information fonts in this way, it is possible to compensate for the weaknesses of one method through the fortes of the other, thereby expanding the research scope and gaining a more holistic and individual-in-context perspective on the present investigated issue.

This study used quantitative and qualitative data analysis techniques, which consist of questionnaires, structured interviews, and classroom observation. Specifically, to explore and evaluate the number of teachers who implement CPBL, how often they use it, and possible challenges or difficulties they may face. To demonstrate the results, descriptive statistics were used, which allowed the conclusion of the group under investigation. Accordingly, variables in this study were, therefore, categorised to determine whether there are connections among them and, if so, how each variable may have influenced the other. It should be highlighted that a research methodology that involved community-based research and followed the CPBL approach has been described.

2.2 Participants and Context

The study was conducted in primary and secondary public schools located in the province of Almeria (south of Spain). The participants of this study were 84 teachers in these public schools. To provide diversity to the study results, two university teachers were invited to participate. The teachers were chosen based on their experience teaching EFL or as CL, PBL, or both CPBL implementors, skilled enough to provide useful insights regarding their understanding of CPBL. The following Table 1 includes more details regarding the participants' characteristics.

Table 1. The participants classification by gender, age, and stage of teaching

Inter-Subject Factors			
Value Label		N	(%)
Gender	Women	47	55.95%
	Men	37	44.05%
Age	25–40 years	60	71.43%
	41 plus range	24	28.57%
Stage of teaching	Primary	58	69.04%
	Secondary	24	28.57%
	University	2	2.38%

The teachers-participants in this study had experience teaching English as a foreign language ranging from 6 to 23 years. The total number of teachers who participated in this study were considered the target sample as well as key informants in the investigation. Since direct contact and communication were permitted, frequent visits to these schools were made. It should be noted that the context of this study is related to the teaching of English to non-native speakers pertaining to the Spanish educational system. In Spain, the Organic Law for the Improvement of Educational Quality (LOMCE) categorised the education stages in accordance with the following pattern: (1) Early childhood education from birth to 6 years; (2) Compulsory primary education between 6 and 12 years; (3) Compulsory secondary education until the age of 16, including baccalaureate and professional education; and (4) University studies (Rojo-Ramos et al., 2022).

2.3 Data Collection Technique

A mixed-method design was applied to obtain data on teachers' responses, which included questionnaires, structured interviews, and classroom observations. Additionally, to collect quantitative and qualitative data, a survey was created based on the research objectives as well as taking into account the context of the study and the educational reality.

2.3.1 Ethical Issues

Consideration of ethical issues was made before beginning the process of data collection. As a result, documents were signed and permission had been obtained from the schools' headmasters. Additionally, participants had been

informed and assured that their responses would be kept confidential and they were free to participate during the data gathering and questionnaire filling processes.

2.3.2 Questionnaire

To collect quantitative information on teachers' responses, a questionnaire design was used, which included sixteen closed-ended questions. A Likert scale was used as researchers have recommended it. This tool would increase the response rate and quality because of its simplicity for the interviewee to read out the complete list of scale descriptors (De Winter & Dadou, 2010). The questionnaire was divided into four sections, each of which included four questions. The first part was designed to obtain demographic data, and the second aimed to gain information regarding the difficulties of the CPBL implementation. Moreover, the third part included items about teachers' experience with the methodology. The last part included items that explored teachers' perceptions of how CPBL impacts students' outcomes and motivation.

The validity and reliability of the questionnaire were evaluated using the SPSS statistical package (v27.0). Test and re-test techniques were applied to obtain reliability. Therefore, the overall level of trustworthiness of the questionnaire is high. On the basis of standardised items, the internal consistency also provided a respectable trustworthiness coefficient. Tables 2 and 3 show the statistically obtained results.

Table 2. Statistical reliability

Reliability statistics		
Cronbach Alpha	Cronbach alpha based on standardised items	N of elements
.853	.807	16

Table 3. Items correlation and coefficient trustworthiness

Items Total Statistics	
Items of the questionnaire	Cronbach Alpha
Educational stage: Prim/Second/Univ	.814
Age	.807
Gender	.803
Experience in teaching	.791
Experience (CPBL Professional training)	.788
Difficulties students face	.809
Teachers' satisfaction	.776
Level of difficulties	.768
Problematic	.829
Motivation	.779
Recommendation	.789
Student creativity	.809
Interdisciplinary	.809
Duration of implementation	.759
Use of English	.777
Research skills	.777

2.3.3 Interviews

Among all the teachers who participated in responding to the first questionnaire, 11 were chosen to participate in the interviews (6 females and 5 males). The average age of the interviewees was 42 years old. Six of them were chosen because they were implementing CPBL in their EFL classes. Three of them were high school teachers and three were primary school teachers in Almeria. The other five teachers were not implementing CPBL, three of them were primary school teachers, and two were secondary school teachers. For the sake of providing a diversity of background experiences and answers among teachers, groups of participants from primary as well as high schools were interviewed. A total of 11 individual meetings took place. The approximate amount of time for each work session was 30 to 45 minutes. The structured sample was chosen and formed based on the following predetermined criteria: (1) At least one school year experience of CPBL implementation; (2) They have achieved at least one training course in the implementation of CPBL; (3) The compensation criterion, where there is a gender balance in the sample; and (4) A sample of CPBL non-practitioners to determine their attitudes toward this methodology.

The interviews were conducted at the end of the investigation to guarantee a better understanding of the issues mentioned in their responses to the first questionnaire. Hence, in-depth, and detailed information was represented based on the outlined objectives and guided by the questions of the interviews. Teachers were encouraged to express honestly their perceptions, ideas, and attitudes toward the implementation of CPBL, and how using the CPBL approach impacts their educational experiences and professional development.

To classify data into specific categories and phrases relevant to the study, the coding method was employed. Open coding is the first phase, which requires the researcher to constantly revise the responses to make ideas clearly perceptible. Furthermore, axial coding is the second step, in which the researcher attempts to link the first and second steps by grouping them into relevant terms and categories. The third and final phase is selective coding, which involves selecting and identifying the primary categories that will then be linked to the study's objectives. Transcribing the data is then performed by manually typing the coding in Microsoft Word.

2.3.4 Classroom Observation

The classroom observation took place directly while teachers were giving English classes to their students. The data collection took around two weeks in four EFL classes, two of which implemented PBL, meanwhile, the others used CL. The purpose was to gather data on the methods and techniques used by the teachers. Therefore, an observation checklist was developed as a guide that enables the recording of all the necessary information. Hence, the checklist was filled with all the observations, accompanied by comments. Indeed, the study used classroom observation, considering its importance to the investigation for the following reasons: (1) Through this technique, we can take a closer look at how the teaching and learning of EFL happen in naturalistic and realistic contexts. (2) It offers more detailed and precise evidence of the data. (3) Through this strategy, a better understanding of instructional methods as well as events can be achieved, which in turn improves more effective teaching models.

3. Results and Discussion

3.1 Questionnaire Results

Teachers' overall experience in teaching and CPBL implementation

Regarding the results obtained from the questionnaires, excluding the first three items, which were designed to gather demographic data. Items 4, 5, and 6 tended to explore the overall years of experience in teaching EFL, the number of teachers who were implementing CPBL methodology, and the duration of implementation. Table 4 summarises the findings.

Table 4. Obtained data regarding teachers' implementation of CPBL

Inter-subject factors				
Items	**Value label**	**Scales**	***N***	**%**
4. Overall experience in teaching EFL	0	Less than 10 years	47	55.95%
	1	Between 11 and 20 years	30	35.71%
	2	More than 21 years	7	8.34%
5. **Experience** with CPBL implementation	0	Yes	22	26.19%
	1	No	53	63.10%
	2	Sometimes	9	10.71%
6. **Duration** of implementing CPBL	0	Never	53	63.09%
	1	Sometimes	9	10.71%
	2	Less than a year	10	11.90%
	3	Between 2 and 3 years	8	9.52
	4	Over 3 years	4	4.76

Based on the findings, the first point to be emphasised is the significant difference between the variable '*interest*', which was demonstrated by teachers toward this methodology, and its planned and systematic use in practice, i.e., '*implementation*'. That is to say, 68% of the participants showed positive attitudes concerning CPBL as a powerful constructional approach that improves cooperation, critical thinking, creativity, and communication skills (Wijayati, Sumarni & Supanti, 2019). These skills are considered crucial for students to be able to compete in the future and effectively analyse, evaluate, and communicate their thoughts or ideas using oral and written communication skills (Karyawati & Ashadi, 2018). CPBL improves students' abilities while also increasing their participation and creative imagination to develop their sense of innovation, which leads to the creation of a bright and smart future (Almulla, 2020).

On the other hand, the results revealed that only a few teachers implemented CPBL and others rarely used it. However, the overwhelming majority of them had never used it. The main reason for the data presented in Table 3 is the variable '*difficulty*' encountered by teachers, which influences both teachers' '*motivation*' in the methodology and their level of '*implementation*'. Consequently, almost all the teachers viewed CPBL as complicated and difficult to implement, especially those who were embarking on their initial attempt with it. The fact that teachers continue to

raise concerns over the challenges may indicate that they were keenly influenced by the difficulties they faced.

Challenges and difficulties associated with enacting CPBL

Regarding the results, which are intimately linked to the variable *'difficulties'*, especially those faced by teachers, the most challenging obstacles are those categorised as technical (see Table 5 item 10), meaning that those teachers lack some technical skills to successfully perform CPBL. Besides, other teachers stated time management as another obstacle. CPBL requires more of the teachers' time than traditional lecture-based teaching. Indeed, teachers were aware that teaching with CPBL would take more time, but they were willing to invest their time because they believed the overall benefits of implementing CPBL would outweigh the costs. Other participants mentioned the lack of resources as another factor having an adverse impact on the *'implementation'* of CPBL (see Table 5).

Similarly, teachers indicated that the group dynamic was the most challenging aspect of teaching EFL (item 7). This problem affects teachers and students alike, especially when a deficit of homogeneity exists among groups. This can lead to conflicts between the different members of the team. Other teachers pointed out that many students lack the necessary skills to conduct research while completing their projects. Besides, the rest of the teachers outlined the "lack of student engagement" as one more difficulty, which precisely means the inadequacy of constructive cooperation among the group members.

Regarding the practitioners' reactions to their satisfaction with the obtained results from CPBL implementation (item 8), Table 5 illustrates the main findings. Accordingly, 33.32% of the participants expressed satisfaction, especially at the level of problem-solving skills development; stimulation of students' curiosity for learning by identifying, analysing, and solving problems; self-directed learning; team or group work; gaining cognitive strategies; generic skills; and collaborative knowledge construction abilities.

Table 5. Difficulties associated with CPBL and teachers' level of satisfaction

Inter-subject factors				
Items	Value label	Scales	*N*	%
10. **Difficulties** encountered by teachers	0	Resources	18	21.42%
	1	Technical	51	60.71%
	2	Psychological	1	1.19%
	3	Temporal	14	16.66%
7. **Difficulties** faced by students	0	Group dynamic	37	44.04%
	1	Research skills	33	39.28%
	2	Lack of engagement	14	16.66%
9. Teachers' level of **difficulties**	0	Very difficult	2	2.38%
(Those who chose 'no idea' did not implement CPBL)	1	Difficult	3	3.57%
	2	Neutral	10	11.90%
	3	Easy	15	17.85%
	4	Very easy	1	1.19%
	5	No idea	53	63.09%
8. Teachers' **satisfaction** with CPBL	1	Slightly satisfied	3	3.57%
	2	Satisfied	4	4.76%
	3	Quite satisfied	10	11.90%
	4	Highly satisfied	14	16.66%
	5	No idea	53	63.09%

Teachers' perception regarding the impact of CPBL on the teaching and learning of EFL

Regardless of the challenges and difficulties teachers and students encounter during the process of realising their project, the findings highlighted important aspects concerning students' motivation to learn EFL (Table 6).

Table 6. Teachers' responses regarding CPBL and students' outcomes

Inter-subject factors				
Items	Value label	Scales	N	%
11. CPBL and students' **motivation**	0	Yes	67	79.76%
	1	No	2	2.38%
	2	Sometimes	15	17.85%
12. CPBL and the **use of English**	0	Strongly disagree	1	1.19%
	1	Disagree	2	2.38%
	2	Neutral	17	20.23%
	3	Agree	41	48.80%
	4	Strongly agree	23	27.38%
13. CPBL and students' **research skills**	0	Strongly disagree	3	3.57%
	1	Disagree	1	1.19%
	2	Neutral	23	27.38%
	3	Agree	37	44.04%
	4	Strongly agree	20	23.80%
15. CPBL and students' **creativity**	1	Always	49	58.33%
	2	Sometimes	34	40.47%
	3	Never	1	1.19%

According to the survey results described in Table 6, teachers considered that CPBL captures students' interests and heightens their motivation to learn English. Ensuring that each team member has a tremendous amount of interaction and appreciation for studying together using interesting group work techniques, which seem deemed fresh and appealing.

Despite the methodological difficulties associated with this pedagogical approach, the results from item 14 revealed that 79% of the participants would recommend it to other colleagues. Similarly, 19% said they occasionally recommend it, while 2% did not. The fact is that some of those who recommended it have effectively implemented it and have experienced a high level of motivation and interest, particularly those who have attended training courses. Others, however, who have never implemented CPBL or have not been trained in it, feel significantly more anxious and concerned about the time and effort involved. Thus, the independent variable *'professional training'* has a considerable impact on the dependent variables teachers' *'motivation'*, which in turn influences their *'satisfaction'* (acceptability) as well as their *'performance'* with CPBL.

Finally, the results from item 16, through which teachers provided their perspectives relative to the interdisciplinarity of CPBL. Interestingly, 70.23% of the respondents agreed with the significance of the interdisciplinarity of CPBL. They believe that an interdisciplinary approach strengthens students' learning of English as they use and apply concepts and skills from other disciplines while seeking out solutions to the driving question.

Correlation between Project-Based Learning PBL and Cooperative Learning CL

Sparkman Rank Test was used to investigate a correlation between PBL and CL skills. The quantitative data were analysed using descriptive statistics Table 7.

Table 7. Correlation Analysis

Spearman's rho	Rank_PBL		Rank_PBL	Rank_CL
		Correlation Coefficient	1000	.696**
		Sig. (2-Tailed)		.000
		N	84	84
	Rank_CL	Correlation Coefficient	.696**	1.000
		Sig. (2-Tailed)	.000	
		N	84	84

**Correlation is significant at the 0.01 level (2-tailed)

As seen in Table 7, the correlation between PBL (as measured by Rank-PBL) and CL skills (as measured by Rank-CL) is strong. On the basis of the computation, the value of significant generated P < .001, α = 0.05, meaning that the statistical proposition highlights a significant difference. PBL and CL have a high correlation coefficient: rho (100) = 0.696, P < .001. Meaning that PBL has a positive impact on CL in the teaching of EFL. This finding aligns with the results of a study conducted by (Kurniawati et al., 2019). Additionally, the findings highlighted a significant correlation between PBL and CL (group work) and students' motivation (Boondee, Kidrakarn & Sa-Nggiamvibool, 2011). Consequently, it is advantageous that teachers implement CL in conjunction with PBL to achieve optimal results.

3.2 Interview Findings

The lack of training on methodological and strategical knowledge is regarded as one of the greatest obstacles facing CPBL implementation, which makes teachers unmotivated to adopt it. The following transcription reflects some of the teachers' responses which were considered significant to the study as they helped in providing solutions to the encountered challenges and difficulties.

Question 1: Could you please tell us about your experience with this methodology? What do you like and not like? Have you faced some challenges and difficulties?

Teacher 1: In fact, *students are more motivated* when teachers allow them *to investigate*, *cooperate*, and *interact* with their team, they come to conclusions *relying on themselves*. In fact, the *methodology itself is very motivating*.

Teacher 2: Umm... yes, I believe it is *an excellent method* to show respect for the diversity of the classroom. I started working with written language from a *constructivist perspective*.

Teacher 3: At first *it looks difficult*, but once the *dynamics are learned*, it *becomes easier*.

Teacher 4: From my point of view, it needs *more collaboration between teachers*, *students*, and *families*, but the *result is satisfying*.

Teacher 5: In many cases... *the methodology is highly relevant* since the *interest is multiplied among the team members*, which helps them *to resolve* the *challenges* they encounter in their learning. I like that *students investigate* and *acquire knowledge in groups*, *learning* from their *peers*.

Teacher 6: I think this *method of teaching requires a lot of previous preparation* so as not to give much input to the improvisation.

Question 2: How can teachers be motivated to teach using this methodology? What do they need (professional training, resources, etc.)?

Teacher 1: *By hosting practical courses*, *motivating collaboration* among teachers in schools, *getting in touch with teachers who use this methodology*, like inviting us to *attend* and *observe* in-class *teachers' activities* when *implementing this methodology* so that they can *provide more in-depth assistance.*

Teacher 2: *It is essential to devote more time* and *resources* to *instructional components* and less to compliance documentation.

Teacher 3: *Teachers should be chosen more rigorously*; 'choose among the *best*' with *high-quality competencies*. Choose those who can *build emotional connections* with their *students*, then provide them with *high-quality professional training* and *motivate their innovation*.

Teacher 4: Well, by providing hands-on training, inviting teachers to *participate* and *observe* classroom activities with this methodology.

Teacher 5: The help of students' *families* who assist in *inspiring students to work harder*.

As mentioned in the interviews' results, teachers confirmed that they need to take professional training courses in the theory and practice of CPBL to enhance their performance skills to effectively manage and plan CPBL tasks. In this sense, the teachers' experiences reported in this investigation aligned with the findings of Chaaban and Du (2020) in their examination of the participants' understanding of PBL. In their study, most of the participants did not have any prior experience with PBL and processed limited knowledge and skills in implementing the approach inside their classrooms. Additionally, participants in our study remarked that their satisfaction with CPBL depends on the ease of its implementation. Furthermore, teachers indicated the importance of involving students' families in the process of implementing CPBL because they can support and guide students' motivation to sustain their projects' success.

Teachers demonstrated their awareness of the significance of CPBL in developing many EFL essential skills, such as reading, writing, and talking abilities, which are considered integrated abilities. When PBL and CL are combined, teachers agree that students become more motivated, creative, and well-focused. Because they are not exhausted as they accomplish tasks cooperatively with their teammates. They are more motivated to express their thoughts in friendly learning environments because when one student's speech is incorrect, others can give feedback. Moreover, they receive more knowledge, help, and guidance when they are working together to solve difficulties and share the learning burden. As a result, students are less apprehensive and more productive when they work in groups than alone. Considering that CPBL provides them with an exciting learning environment that inspires them, spoils their ideas, helps them learn new skills, and promotes a healthy and happy learning atmosphere.

3.3 Results from the Observation

The process of implementing Cooperative Project-Based Learning in the EFL classroom

On the grounds of the classroom observation results, the following Table 8 summarises the main findings

Table 8. The implementation process of CL in the EFL classroom

Activities and notes	
Teacher	Prepared students for collaborative work by asking them to make small groups of three or four and stimulate their interaction. Involve them by asking topic-related questions. Give some explanation and direction. Motivating them to share their answers and thoughts with their groups, and write the main points (they can ask the teacher in case of difficulty).
Students	Follow the teacher's instructions to form small groups. Involve in a discussion with their teammates. Make a list of key points from the discussion. attempt to clarify tricky points with the teacher. They write essays based on the topic they were given, submitting them to their teammates for correction. Revise and correct the exchanged draught.
Assessment	The teacher checked the students' participation by taking notes during the teaching and learning process. In response to the teacher's request, the students submitted the revised draughts of their essays. The teacher gave the students feedback on their work.

As a result of the fieldnotes taken during the implementation of CP, it was concluded that: (1) Students took an active role in the learning process; (2) Students were motivated to learn during the CL sessions; (3) Interaction among students reduced their nervousness during the learning process; (4) When working in groups, students aimed to take responsibility for their own tasks; (5) In some classes, the teacher appeared to be having difficulty organising the class; (6) Sometimes, the grouping made by the teacher was imbalanced (factors such as the gender of students and their abilities should be considered); (7) The time spent implementing CL in one meeting was very limited. Due to the time limitations, in one session, the assessment was incomplete.

On the other hand, Table 9 shows the results of the observations made during the implementation of PBL in EFL classes.

Table 9. The implementation process of PBL in the EFL classroom

Activities and notes	
Teacher	Presenting and discussing the problem (considering the context/recent issue). Checking students' comprehension by asking questions related to the problem. Motivating students to solve problems cooperatively with their group. When necessary, students are encouraged to investigate issues out-of-school. ICT is involved, and students were encouraged to conduct research through internet-based reading.
Students	Read and comprehend the problem presented by the teacher. Participating in small group discussions to identify the main issues. Brainstorming the issue by connecting their prior knowledge to the current problem. In one session, students left the classroom to interview specialised people. Communicating and sharing the results of the finding with their teammates. Producing individually a draft version of an essay. Comparing and correcting their essay draughts with those of their peers. Each student improved the essay's shared draft.
Assessment	The teacher took notes on the learners' engagement during the process of realising the tasks. Assessed students' comprehension of the problem by asking questions associated with their findings and discussions with their teammates. Students were asked to submit their final product.

According to the results derived from the field notes taken during the implementation of PBL, it was revealed that: (1) Students willingly engaged in the realisation of the project's tasks, and were highly motivated to learn cooperatively with their teammates; (2) Students attempted to solve problems by exploring different resources; (3) Students were enthusiastic about the learning process; (4) Students appeared to be more responsible for their own learning and hence more autonomous; (5) Students sometimes were confused when they encountered problematic issues; (6) The teacher provided support and guidance to students when necessary; (7) The teacher sometimes had some sort of difficulties regarding group organisation and time management, especially at the end (assessment phase).

Indeed, this research strongly supports the use of CL group work in PBL (CPBL) whenever possible. Previous studies revealed that there is a significant difference between students' achievement in CPBL. Hutchison (2016) states in his study that students' participation in cooperative group projects may benefit from a diversity of backgrounds and experiences and lead to better attainment. Carless and Boud (2018) argue that in CPBL, students appreciate, manage, judge, and take actions that help them develop higher-order thinking skills such as analysing, evaluating, creating, and innovating.

4. Conclusion

PBL is an excellent approach for students to develop teamwork and cooperative skills. When done correctly, group work encourages team members to assist one another in comprehending content and completing challenging tasks that foster a deep understanding of essential concepts and thus enhance the learning of EFL. Nevertheless, if teachers fail to carefully manage cooperative groups of students, they may face complex challenges which could possibly make the journey of teaching through cooperative projects exhausting.

The results of this exploratory study, which emerged from the outlined objectives, attempted to elucidate teachers' motivation to implement CPBL and also explore the difficulties and challenges associated with the enactment of this methodology. As part of the study's objectives, practical solutions were suggested to enhance teachers' inclinations to successfully implement this methodology in their EFL classrooms.

The study revealed that CPBL practitioners had positive attitudes towards CPBL as a powerful constructional approach that improves students' linguistic and communicative abilities. In addition to improving other significant competencies such as creativity and inventive imagination, leadership and flexibility, initiative and entrepreneurship, and lifelong learning.

The results also indicated that a very limited number of teachers were employing this methodology. Indeed, one of the biggest challenges facing CPBL is that teachers lack appropriate pedagogical training about how to adopt this approach in their classrooms, which consequently diminishes the number of CPBL implementors. Indeed, motivating more teachers to implement CPBL in their EFL classrooms without difficulties requires up-to-date, adequate, well-designed, and continuous professional training (Wijnia, Loyens & Derous, 2011). It is also fundamental that practitioners of CPBL share their best educational practices, which are considered optimal, innovative, and attractive so that they can serve as models to follow. The best practices can be transformed during the teachers' continuous training phase or by creating a weekly or monthly educational magazine. These magazines could include stages of CPBL implementation, methods, schedules, results, possible difficulties, and the alternative solutions to these difficulties. Correspondingly, the rewarding of outstanding performances and teaching practices, innovation, and new learning methods, can significantly improve teachers' motivation as they feel valued and respected. By such means, they can continue with their excellent work. According to Robinson (2012), regardless of the pressures of adopting this methodology, strong collegial relationships and collaboration, teachers can find new ways to reshape requirements and resolve them in their manner.

Finally, it is important to highlight that the study has certain limitations. The first limitation lies in the fact that we did not gather quantitative data by questioning students directly about their performance; instead, we focused mainly on the practitioners, and this can be taken into consideration for future research that the investigation of CPBL methodology includes not only teachers but also students. The second limitation is that the limited sample used for this study may have an impact on the applicability of the results obtained. Similarly, the population in this study was mainly Spanish, and CPBL use may differ from one country to another depending on the level of use. Thus, future cross-cultural comparison studies may ensure the generalizability of the results while also providing new insights into the development of CPBL in English teaching and learning.

The study's findings have important implications for course designers and teacher training programmes. The findings may also inspire teachers who work in the field of teaching EFL, particularly those who are experiencing difficulties or challenges in implementing CPBL, or others who are willing to enhance their professional development to implement CPBL in their classrooms in the future.

5. Recommendation

Based on the findings and for the sake of motivating more instructors to widely incorporate CPBL in their EFL classrooms. This study puts forward recommendations to be considered. Teachers should be encouraged to take part in CPBL professional development workshops as teams with members teaching diverse disciplines, followed by interdisciplinary collaboration among those teachers. There are two benefits to using this. First, it fulfils the objective of CPBL, which is considered to have an interdisciplinary nature. Second, it enhances teachers' interaction and

develops a social-professional network in which they find the relatedness of performing CPBL in their classrooms (Emo, 2015).

In relation to what some interviewees mentioned regarding problems faced by students when working cooperatively on projects, for example:

1. Due to difficulties, students need enough understanding of how to design their research for the project. As a result, they seek information from their teachers.

2. When a project operates like a traditional unit, it can lead to a lack of student learning skills.

3. Students who do little work or do not participate in group activities may receive a higher grade than they merit based on their true performance. Grade inflation hides conceptual learning deficiencies.

Possible solutions to the mentioned problems

There are important strategies teachers can adapt to facilitate students' tasks and help them work effectively together:

1. Establish guidelines that define roles and responsibilities. The mission is the group's goal and the reason for its existence. Representing the group norms is crucial to the productivity of the group.

- For each role, provide criteria and logistical checklists. Students must have common areas of agreement around which they organise their attitudes.

- Teachers should train their students to work cooperatively, although this is not an easy task, mainly if teachers have insufficient knowledge of the theory and practice of the group dynamics.

2. Students should be motivated for their efforts and the solutions or ideas they produce. Face-to-face or virtual meetings have the tremendous effect of giving students' work greater meaning (Wozney, Venkatesh & Abrami, 2006). You can invite experts who can motivate students to carry out their projects. Encourage students to consider themselves professionals in order for their practice to be authentically linked. Then have students finish the project with a presentation or publication that is presented to the outside audience.

3. It is required that teachers make all graded assignments individual tasks and not assign grades for group projects. Taking grading out of the equation allows students to concentrate on their work without worrying about how their peers' efforts will affect their grades, and it encourages all students to participate.

Conclusively, the existence of an atmosphere of mutual respect among learners is one of the conditions for the success of CPBL. Additionally, the entry event is crucial for each project to be launched and to prime the learner's pump and activate the prior learning inside them. The ideal entry event captures both hearts and minds. An intriguing challenge causes cognitive dissonance, whereas an authentic situation inspires emotional insight into the issue at hand.

References

Almulla, M. A. (2020). The effectiveness of the project-based learning (PBL) approach as a way to engage students in learning. *SAGE Open, 10*(3). https://doi.org/10.1177/2158244020938702

Boondee, V., Kidrakarn, P., & Sa-Ngiamvibool, W. (2011). A learning and teaching model using project-based learning (PBL) on the web to promote cooperative learning. *European Journal of Social Sciences*, *21*(3), 498-506.

Carless, D., & Boud, D. (2018). The development of student feedback literacy: enabling uptake of feedback. *Assessment & Evaluation in Higher Education*, *43*(8), 1315-1325. https://doi.org/10.1080/02602938.2018.1463354

Chaaban, Y., & Du, X. (2020). Teachers' readiness for PBL in primary education in Qatar. *Interdisciplinary Journal of Problem-Based Learning*, *14*(1). https://doi.org/10.14434/ijpbl.v14i1.28591

Chen, C. H., Hung, H. T., & Yeh, H. C. (2021). Virtual reality in problem-based learning contexts: Effects on the problem-solving performance, vocabulary acquisition and motivation of English language learners. *Journal of Computer Assistant Learning*, *37*(3), 851-860. https://doi.org/10.1111/jcal.12528

Cosgun, G., & Atay, D. (2021). Fostering critical thinking, creativity, and language skills in the EFL classroom through problem-based learning: Fostering critical thinking, creativity and language skills. *International Journal of Curriculum and Instruction*, *13*(3), 2360-2385. Retrieved from ijci.wcci-international.org

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks, Sage publications.

De Winter, J. F., & Dodou, D. (2010). Five-Point Likert Items: t-test versus Mann-Whitney-Wilcoxon. *Practical Assessment, Research, and Evaluation, 15*(1), 11. https://doi.org/10.7275/bj1p-ts64

Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher*, *38*(3), 181-199. https://doi.org/10.3102/0013189X08331140

Egbert, J., & Roe, M. F. (2014). The power of why: Connecting curriculum to students' lives. *Childhood Education*, *90*(4), 251-258. https://doi.org/10.1080/00094056.2014.933665

Emo, W. (2015). Teachers' motivations for initiating innovations. *Journal of Educational Change*, *16*(2), 171-195. https://doi.org/10.1007/s10833-015-9243-7

Fernandes, S., Alves, A. C., & Uebe-Mansur, A. (2021). Student-Centred Assessment Practices: An Integrated Approach with Project-Based Learning (PBL). In *Handbook of research on determining the reliability of online assessment and distance learning* (pp. 213-243). IGI Global. https://doi.org/10.4018/978-1-7998-4769-4.ch009

Gultekin, M. (2007). Project-based learning to learn in fifth-grade science effect on products. *Elementary Education Online*, *6*(1), 93-112.

Hutchison, M. (2016). The empathy project: Using a project-based learning assignment to increase first-year college students' comfort with interdisciplinarity. *Interdisciplinary Journal of Problem-Based Learning*, *10*(1). https://doi.org/10.7771/1541-5015.1580

Johnson, D. W., Johnson, R. T., & Stanne, M. B. (2000). Cooperative Learning Methods: A Meta-Analysis. *Reinvention International Journal Undergrad, 8.* Retrieved March 20, 2022, from http://www.tablelearning.com/uploads/File/EXHIBIT-B.pdf

Jooste, N., & Heleta, S. (2017). Global citizenship versus globally competent graduates: A critical view from the South. *Journal of Studies in International Education, 21*(1), 39-51. https://doi.org/10.1177/1028315316637341

Jung, E. Y., & Kong, J. H. (2017). The development and effect of CPBL (Creative Problem Based Learning) for nursing students. *Journal of Problem-Based Learning*, *4*(1), 5-14. https://doi.org/10.24313/jpbl.2017.4.1.5

Kalyaniwala, C., & Ciekanski, M. (2021). Autonomy CALLing: A systematic review of 22 years of publications in learner autonomy and CALL. *Language Learning & Technology, 25*(3), 106-131. http://hdl.handle.net/10125/73452

Karyawati, A., & Ashadi, A. (2018). Innovation in the classroom: Engaging English as a foreign learning student using project-based learning. *Innovation*, *5*(1), 61-67. https://doi.org/10.21831/lt.v5i1.17067

Komljenovic, J. (2021). The rise of education rentiers: digital platforms, digital data and rents. *Learning, Media and Technology*, 1-13. https://doi.org/10.1080/17439884.2021.1891422

Kurnaz, A., Küçükömeroğlu, B., Keser, R., Okumusoglu, N. T., Korkmaz, F., Karahan, G., & Çevik, U. (2007). Determination of radioactivity levels and hazards of soil and sediment samples. *Applied Radiation and Isotopes*, *65*(11), 1281-1289. https://doi.org/10.1016/j.apradiso.2007.06.001

Kurniawati, F. N., Susanto, S., & Munir, A. (2019). Promoting students' collaboration skill through project-based learning of English writing. *Anglo-Saxon: Jurnal Ilmiah Program Studi Pendidikan Bahasa Inggris*, *10*(1), 29. https://doi.org/10.33373/anglo.v10i1.1890

Leask, B. (2020). *Internationalization of the curriculum, teaching and learning* (pp. 1940-1949). Springer, Netherlands. https://doi.org/10.1007/978-94-017-8905-9_244

Loyens, S. M. M., Kirschner, P., & Paas, F. (2011). *Problem-based learning*. In K. R. Harris, S. Graham, & T. Urdan (Eds.). APA Educational Psychology Handbook. https://doi.org/http://tinyurl.com/zls6ro9

Mertens, D.M., & Hesse-Biber, S. (2012). Triangulation and Mixed Methods Research: Provocative Positions. *Journal of Mixed Methods Research, 6*(2), 76-79. https://doi.org/10.1177/1558689812437100

Nbina, J. B. (2010). Re-visiting Secondary School Science Teachers Motivation Strategies to face the Challenges in the 21st Century. *Academic leadership lives online journal*, *8*(4).

Peng, J. (2014). *Willingness to Communicate in the Chinese EFL University Classroom*. Bristol: Multilingual Matters. https://doi.org/10.21832/9781783091560

Robinson, S. (2012). Constructing teacher agency in response to the constraints of education policy: adoption and

adaptation. *Curriculum Journal*, *23*(2), 231. https://doi.org/10.1080/09585176.2012.678702

Rojo-Ramos, J., Gomez-Paniagua, S., Barrios-Fernandez, S., Garcia-Gomez, A., Adsuar, J. C., Sáez-Padilla, J., & Muñoz-Bermejo, L. (2022). Psychometric Properties of a Questionnaire to Assess Spanish Primary School Teachers' Perceptions about Their Preparation for Inclusive Education. In *MDPI Healthcare, 10*(2), 228. https://doi.org/10.3390/healthcare10020228

Schneider, B., Dowell, N., & Thompson, K. (2021). Collaboration Analytics—Current State and Potential Futures. *Journal of Learning Analytics, 8*(1), 1-12. https://doi.org/10.18608/jla.2021.7447

Walton, J. (2014). Teachers as expert learners and fellow travellers. *Issues in Teacher Education, 22*(2), 67-92. https://eric.ed.gov/?id=EJ1065195

Wijayati, N., Sumarni, W., & Supanti, S. (2019). Improving Student Creative Thinking Skills through Project-Based Learning. *KnE Social Sciences*, 408-421. https://doi.org/10.18502/kss.v3i18.4732

Wijnia, L., Loyens, S. M., & Derous, E. (2011). Investigating effects of problem-based versus lecture-based learning environments on student motivation. *Contemporary Educational Psychology*, *36*(2), 101-113. https://doi.org/10.1016/j.cedpsych.2010.11.003

Wozney, L., Venkatesh, V., & Abrami, P. (2006). Implementing computer technologies: Teachers' perceptions and practices. *Journal of Technology and teacher education*, *14*(1), 173-207. https://www.learntechlib.org/primary/p/5437/