

# Unlocking Learners' Potential through Project-Based Learning: Factors Influencing Students' Engagement in the EFL Classes

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## Abstract

*Engagement is widely recognized as a key factor in the success of the learning process. Project-based Learning (PjBL) seems to stand out as an approach promoting this factor. This qualitative case study explores how students engage in the PjBL classroom and investigates the key factors influencing students' engagement. This study used a convenience sampling method and took common core students as its population. Participants were taught through PjBL for 8 weeks. Data were collected through field observations during the implementation, and semi-structured interviews after the implementation. Data were analyzed using thematic analysis. Findings reveal considerable levels of students' behavioral, cognitive, emotional, agentic, and social engagement in the PjBL classroom. This paper also determined interest, collaboration, group dynamics, voice and choice, desire for achievement, and instructor support, as factors that enhance students' engagement. This approach is found to foster a supportive learning environment conducive to learning. Given its advantages, it deserves more attention from curriculum designers.*

*Keywords: EFL, Engagement, Project-Based Learning*

## 1. Introduction

Passive learning is unlikely to result in language learning, especially that the latter's primary function is communication, which inherently requires being involved in the matter. Moroccan textbooks still put the teacher in the position of the knowledge transmitter, with little room for students' voice, choice and agency. Most of the textbook activities involve gap filling, matching exercises, and in the best cases, dialogue writing. Curriculums do not seem to meet the rapid changes of the current era which do

not only require interesting activities connecting to the real world, but also students' active engagement in the learning process. The need for updating the outdated curriculums arises in parallel with the demand for more students' driven approaches.

This conviction lead educators and teachers to try to maximize learners' engagement in the classroom. EFL classrooms have been undergoing different methods and strategies to raise engagement. Project-based learning, revolving around putting students at the core of the learning process, makes it a must for students to be engaged in learning. Different studies in the EFL context in China, Turkey, Indonesia, Spain, Finland and other countries reported the effectiveness of this approach with regards to different outcomes and skills, be them hard or soft. The literature also reports that not only were higher levels of engagement documented in PjBL classrooms, but this approach was also responsible for higher academic achievement (Bell, 2010; Blumenfeld et al., 1991; Salam et al., 2016; Yu, 2024; Zhang & Ma, 2023).

While PjBL has been widely investigated within the EFL context in Western and Asian countries, very limited studies have investigated the implementation of PjBL in North African settings, particularly in Morocco. PjBL's effectiveness with regards to students with lower or beginner developmental levels stays underexplored. Further, most of the studies investigating PjBL are quantitative in nature, reporting its effectiveness in numbers. Fewer studies attempt to investigate the approach from a purely qualitative view to deeply explore its specifics. Further, students' interaction with such an approach and factors shaping their engagement within the approach remain considerably insufficient. This presents a gap in research considering the linguistic, cultural, and institutional specificities of Moroccan EFL classrooms.

Recent educational reforms in Morocco have called for more student-centered learning approaches, shifting from the traditional philosophy which revolves around putting educators at the heart of the teaching learning process. (MENFPESRS, 2019) Nonetheless, the reality of EFL practices in Moroccan public high schools states otherwise. The integration of such innovative approaches stays very limited. Bouqetyb (2021) & Khoudri et al., (2023) report high difficulties pertaining to the implementation of these approaches such as the large size of classes, inflexible assessment methods, time constraints, insufficient trainings in alternative approaches.

This paper looks at PjBL from both students' and the teacher's perspectives. It takes common core students studying English for the second year as its population. The study investigates the extent to which PjBL boost students' engagement in EFL classes, and it explores the factors which enhance engagement in PjBL classrooms. Understanding these particularities within a Moroccan setting is essential for adopting such pedagogical approaches.

## 2. Literature Review

Project-based learning is rooted in experiential and sociocultural learning theories. John Dewey's early philosophy of learning highlights the importance of both experience and real-life relevance. It points out that learning occurs by doing and is depicted as a continuous process which builds on previous learning experiences. Tasks are also linked to the real-world and connect to students' interest (1938). Further, learning happens through interaction, collaboration and teacher's scaffolds (Vygotsky, 1978). All of which are inherent to Project-Based Learning premises.

There is no one definition of PjBL. Blumenfeld et al., (1991) define PjBL as a comprehensive approach which involves students in investigative activities. Bell (2010) states that:

Project-based learning is a pedagogical approach in which students work on a project over an extended period, with the goal of producing a final product or artifact that addresses a real-world problem or challenge, demonstrating their learning and knowledge application (p: 41).

PjBL is an approach which starts with a problem and ends with a final artifact addressing the problem. In doing so, students work in groups and engage in investigation which start with the planning, data gathering, analysis and product formation.

## **2.1 Features**

Although the literature does not agree on one set of PjBL features, the main ones stay well-defined. According to Thomas (2000), there exist five defining features which distinguish PjBL from other approaches. First, there is centrality; that is, "the project is the central teaching strategy." Projects are not supplementary, but they are the core of the curriculum. Doing a project upon the completion of two units or more is not an instance of PjBL. Second, projects have a driving question which guide the learning. It is the foundation of learning and inquiry. Third, "projects involve students in a constructive investigation." Learners engage in an inquiry to solve a problem and reach a conclusion. Projects cannot be done based on prior knowledge, but with new one being formed following the investigation. Fourth, "projects are student-driven to some significant extent." Within PBL, students are given choice, voice, and a room for autonomy. Finally, projects are authentic and connect to the real life of students (p. 3).

In addition to these features, Larmer et al., (2015) adds presentation as a further feature. He states the importance of making students' final products public. In the same vein, Buck Institute for Education (2019) supports this feature in addition to reflection, critique and revision. In this sense, students not only reflect on their work, but they exchange and apply feedback.

## **2.2 Teacher and Students' Role in PBL**

Within PjBL, both teachers and students cease to perform their traditional roles of transmitting knowledge and receiving it. The most important role the PjBL teacher plays is a scaffolder. Teachers provide the needed support for students throughout the phases of PjBL (Blumenfeld et al., 1991). Teachers also act as facilitators who guide students through the process of investigation (Barron & Darling-Hammond, 2008). While it is necessary to allow autonomy, voice and choice, it is not advised to let students totally unsupervised. Teachers check that students are not lost in the process. Teachers also facilitate collaboration among learners (Scardamalia & Bereiter, 2006). Additionally, it is of high importance to create a positive learning environment which boost interaction, risk-taking, motivation and agency (Larmer, Mergendoller, & Boss, 2015).

Students' roles in PjBL witnessed a crucial change which primarily moved from passive reception of knowledge to constructing it. Within this approach, students are active learners and investigators. They engage in active inquiry to solve a problem (Krajcik & Blumenfeld, 2006). Students act as team-players. They engage in collaborative activities through negotiation and feedback (Thomas, 2000). Students are also problem solvers and critical thinkers. They no longer wait for knowledge to be transmitted to them; they rather obtain it through analyzing complex issues and reaching conclusions (Barron & Darling-Hammond, 2008). Students are also expected to be reflective and self-regulator learners. In this regards, Zimmerman (2002) states that students develop metacognitive skills through self-assessment and reflection.

## **2.3 Engagement**

There are multiple definitions of engagement, all of which agree on students' active involvement is the learning process. Fredricks et al., (2004) depict it as the degree of interest, involvement, and efforts students show in their learning at the cognitive, emotional, and behavioral aspects. According to them, while cognitive engagement covers students' mental investment in understanding complex issues and employing learning strategies to solve them, emotional engagement pertains to students' affective side with regards to learning including feelings of interest, excitement and joy; and the behavioral engagement concerns the physical participation in tasks and activities. Further, Reeve (2013) highlights the agentic dimension of engagement which appears in learners' ownership in learning through making decisions, taking initiative, and setting goals.

Drawing on the roles of students in PjBL and the defining characteristics of such an approach, one is inclined to think that without engagement, the approach is deemed to fail. In this sense, Thomas 2000 states:

In Project-Based Learning, engagement is amplified as students actively participate in authentic tasks, apply their learning to real-world problems, and collaborate with others, leading to higher levels of motivation, ownership, and deep learning (p:11)

PjBL opens the door for students to engage in different manners. Larmer et al., 2015 states that it creates collaboration opportunities. Similarly, Krajcik & Blumenfeld (2006) suggest that interaction and negotiation enhance interpersonal skills and promote social engagement.

### 3. Research Methods

This paper has two main objectives. First, exploring how students engage and interact in the PjBL classroom; second, determining the key factors influencing students' engagement in the same classroom. This section describes the methodology used in conducting this study.

#### 3.1 Research Design

This piece of research uses a qualitative approach to attain in-depth data from its natural settings. A case study design is adopted to allow a detailed investigation of students' engagement in the PjBL classroom from both students' and the observer's perspectives. According to Creswell & Poth (2018), the case study design provides a comprehensive understanding of a phenomenon thanks to the different existing sources of information and evidence in such a method. In this case study, a group of 34 common core students was instructed through PjBL for a duration of eight weeks.

#### 3.2 Participants

A total number of 34 students were taught using PjBL. The latter used groups throughout its implementation. The formation of groups went through two stages. First, the class was divided into 3 big groups based on the grades students got in the exams of the first semester distributed as follows: high (group A), average (group B), and low grades (group C). Second, participants were given the choice of joining and forming their small groups of 3 and 4 students, with the sole condition of staying in their big group A, B or C. This division is meant to leave freedom to students to work with peers of their choice while minimizing the gap in their levels. This division would also minimize the chance for some students to dominate the group by doing all the work.

Of the total 34 students, 22 took part in this study. 4 of them participated in both interviews and observation; 10 of them participated only in observation, while 8 of them participated only in interviews. Therefore, a total number of 12 interviewees and 12 observed students participated in this study. Participants belonged to a common core class which studied in a El Mowahidine high school in khemisset city, Morocco.

The selection of the class was purposeful. In such a method of sampling, "researchers deliberately select individuals or groups that are especially knowledgeable about or experienced with a phenomenon of interest." While groups subject to observation were randomly selected within the class, voluntary response sampling was used to conduct the interviews. Groves et al., (2009) defines the latter as a method in which individuals choose to participate in a study.

The number of participants is justified by the nature of the study which is purely qualitative. The latter concerns itself more with the depth of data rather than the high number of participants. In this context, Patton (2015) argues that the ultimate purpose is maximizing the richness of the information rather than the sample. 12 interviewees, which is the number for the current study, is perceived as a conventional, sufficient number in qualitative data. Guest, Bunce & Johnson (2006) point out that the

themes of a study emerge by the 12th interview. According to them, more numbers only repeat the previously emerged themes.

As for observation, only 12 students distributed on 3 groups were observed. That is attributed to the dynamics of groups and the participant nature of observation. Observing more groups may result in less rigid data.

### **3.3 Instruments**

This study employs two data collection instruments: field observations and semi-structured interviews. Participant observation took place at three different occasions and was done by both the class's teacher and her colleague. This choice aims at reducing bias and having more solid data. The same groups were observed. Notes with regards to students' engagement at five dimensions were documented. The dimensions include the behavioral, emotional cognitive, agentic, and social dimension. The observers serve as scaffolders in the learning process, answering questions and providing help. This makes it easier for them to closely witness students' engagement at those different dimensions. Observation provides data from the instructor's point of view. Semi-structured interviews were conducted to obtain data from students' point of view. They were conducted through both Zoom and phone calls at participants' most convenient time. Interviews were recorded after getting participants' consent. 14 students were asked in both direct and indirect ways to reveal the factors influencing their engagement in the PjBL classroom. Questions were designed based on the five existing dimensions of observation.

### **3.4 Data Analysis**

Both interview and observation data were compiled and transcribed. They were analyzed through the six-step thematic analysis framework proposed by Braun and Clarke (2006). This framework starts with "familiarizing with the data", then "generating initial codes", after that, the researcher starts "searching for themes", reviewing, defining and naming them; finally, the researcher reports the findings (p. 79).

## **4. Results**

### **4.1 Students' Engagement in the PjBL Classroom**

Participant observation was used to document students' engagement at different dimensions from the teachers' point of view. The following are the emerging themes:

#### **4.1.1 The Behavioral Dimension**

Students under observation were actively interacting with peers and tasks throughout the sessions. They completed activities and met their deadlines. All participants contributed to the group work and finished their parts. Students actively attended all the classes. They would come a few minutes before the actual session time so as they set their place with the materials and benefit from every moment. One of the groups had a clock to set a time limit for activities. Students completed the activities in ways applicable to real life scenarios, reflecting a deeper level of engagement thanks to the real-life relevance of tasks. Further, low achievers, who were very passive during the textbook-based instruction, showcased remarkable progress with regards to their involvement in tasks.

It should be noted that not all the groups participated in the activities on the same level from day one. A few students showed low levels of collaboration and participation in the first session of PjBL implementation. However, they showcased remarkable progress over time and managed to complete their projects.

#### **4.1.2 The Cognitive Dimension**

It was noted that students made use of different strategies to finalize their artifact. Depending on the type of the activity, students used categorizing, word mapping, outlining, ordering, and organizing strategies. Those strategies were especially used in the design and data collection stages. The notes

showed better use of these strategies over time. For example, a group working on a power point presentation spent time agreeing on what should come first, how to structure the presentation, and what examples would be relevant. Another group working on a clothing catalogue ordered their hypothetical sales according to gender, colors, prices, and type of clothes.

Managing time and organizing ideas posed some difficulty for a few students who needed more support from the teacher, especially in the first week of the implementation. This difficulty faded away in the following weeks.

#### **4.1.3 The Emotional Dimension**

The pre-project session, which introduced PjBL, witnessed feelings of hesitancy, shyness and lack of self-confidence. Not only did students' body language point out their feelings, but students themselves approached the teacher with many concerns, questioning their ability to do and complete projects. However, once the PjBL was launched, students started to show feelings of excitement and joy. They entertained moving freely in the class, making healthy noise, making their own decisions, and collaborating with their peers. As soon the first week of PjBL passed, students demonstrated more positive feelings. With the teacher's support and students' efforts, students' self-confidence and interest increased. That was further shown when students preferred to continue studying through PjBL though they were given choice to go back to the textbook-based instruction. Instances of curiosity and enthusiasm were frequently noted. Furthermore, upon the completion and the presentation of their projects, students showcased feeling of pride. Some of them videorecorded themselves. A stronger relationship between the instructor and the students was also built, reinforcing more positive attitudes towards learning.

#### **4.1.4 The Agentic Dimension**

Students assumed an active role over learning through making decisions, seeking help, and reflecting. Agency was observed from the first session of PjBL when students reach out to the instructor to check their understanding and show their progress. Students with different project ideas suggested different methods and solutions. Additionally, students frequently asked for feedback. They showed their self-driven ability to do tasks on their own, take further decisions, and move forward with their projects. Further, some students took initiative and looked for additional resources. A group brought their laptops to structure a PowerPoint presentation in class. Another chose the same form of the presentation but lacked a laptop on the day of the presentation. So, they brought a USB and requested the teacher's help in using her laptop to project the presentation. All of these are instances of agency.

#### **4.1.5 The Social Dimension**

Students worked together through different phases of their projects. They interacted with each other, negotiated ideas, provided feedback to each other. Students explained to their peers their understanding and asked for opinions. More communicative learners helped engage the less communicative ones. On the presentation, students made sure that everyone of them present their part and get their fair share of the time given. Students were seen to support each other and learn from each other at different stages. Two students, however, showed their disagreement with regards to how to proceed with the work; consequently, students adapted their social interactions by choosing a more suitable group. Other instances of disagreement between other members were noted; however, they managed to reach a common ground. It should be noted that not only did students, each from their part, contribute to the success of the group, but they also built interpersonal relations.

### **4.2 Factors Influencing Students' Engagement in PjBL**

Semi-structural interviews were used to explore the factors influencing engagement from students' point of view. The following are the emerging factors with this regard. They could be thought of in terms of structural and psychological factors.

#### **4.2.1 Structural Factors**

##### *1. Interplay of PjBL phases:*

This factor encourages students to be proactive knowing what to do next. Students pointed out at the efficacy of the sequential process of PjBL. Each of the stages leads to the other one and makes the purpose clear. A student stated: " My group members and I knew what to do next, this kept us engaged throughout the process." Another noted: " We just needed to finish a step to get to the other one." Such a factor provides a chance of direction and ownership.

##### *2. Voice and choice:*

Students' responses showed their appreciation to this factor and stated its importance in raising their interest and motivation. They expressed that they are more likely to do better when they work on something from their own choice. In this regards, a student stated: " I enjoyed the fact that I can choose the form of my final artifact." Another commented: " we could use our own seats, materials, and group". A further interviewee stated: "I do better when I have a say in what I am doing."

##### *3. Novelty of the approach and activities:*

Students stated that the type of instruction plays a role in their engagement. According to them, such an approach is highly engaging. It involves interesting activities and out of class tasks. Additionally, they connect to their lives. Students also took joy in learning through doing projects which reflect their thoughts and visions. Visualizing their ideas in a poster, booklet or any other form of product was different from their everyday activities. Seeking and employing different resources provided a sense of novelty to the activities. Instances of this were evident when students commented: " that's the first time I experience this instruction"; " I wish we could study longer using projects, and even in other subjects using"; "learning is more fun when I am allowed to add my touch to it"; "I enjoyed the different activities which we do outside the classroom." Further, some students see the presentation stage as an advantage, encouraging them to invest more efforts in their work.

##### *4. Collaboration and peer feedback:*

These factors made students attain more understanding. Completing projects is a common responsibility that all peers share. Some students stated that collaboration makes tasks less burdensome, and more achievable. A student noted: "three minds are better than one." Another commented: "we get more ideas through discussions." Peer feedback was also favored as students spoke their minds freely to each other. Students checked their understanding by paraphrasing ideas to their peers and asked for clarifications. All of this made students think they are all on the same page. Receiving different opinions also enriched learning. A student stated: " we gave and received opinions, which made us assume more responsibility." Students believed in the power of collective work which, according to them, not just led to better results, but also made learning fun.

##### *5. Technology use:*

A further factor students perceive as engaging is the use of technology. The latter was seldom used by the teacher before the implementation and never used by students. Using technology to seek resources, form projects and present final artifacts made learning more interesting, and hence more engaging. A participant revealed: "I was less distracted when technology was used." Another stated: " I love preparing PPT presentations. They provides information in a neat way"

#### **4.2.2 Psychological Factors**

##### *1. Group dynamics*

This is one of the most frequent emerging factors leading to engagement. The group dynamics resulting from students' roles, discussions, interpersonal relationships, and common goals lead to more engagement from students. They feel they are committed to the group; therefore, they invest more

efforts. A student stated: "I felt responsible towards the group." Another stated: "adding everyone's work into the final project was satisfying." A further student commented: "when everyone in the group is working, I am more motivated to work and do my part in the best way possible."

### 2. Interest

Students loved the PjBL experience and described it as special and outstanding. Learning through interesting projects which allowed voice and choice boosted their interest and enhanced their engagement. It was more exciting for them to learn in their own ways rather than learn passively. Students expressed their interest in continuing to study through PjBL clearly.

### 3. Instructor support

Students reported that the instructor support played a great deal in keeping them engaged throughout the implementation. The instructor's scaffolds and interventions were crucial to students' productivity and engagement. Students were encouraged to ask questions and seek help, which strengthened the instructor- students' bond, and increased their engagement. A student noted: "we were not lost; the teacher was always there for us." Another commented: "our teacher always supported us and was open to our ideas." These instances show the important role the instructor's support plays in the learning process.

### 4. Desire for achievement and tangible results

It was reported that having a tangible result at the end boosted students' desire for achievement and therefore increased their engagement. A visible outcome helped keep students focused and engaged, especially that the products were made public to the rest of the class thanks to the presentation stage.

## 5. Discussion

Findings show that students' behavioral, emotional, cognitive, agentic, and social engagement were evident from the beginning of instruction. These dimensions witnessed a remarkable increase over time, proving the power of PjBL in shaping high levels of engagement. While Zhong et al., finds that students' behavioral dimension of engagement is the highest, followed by the emotional, cognitive, and then agentic one, this study shows similar levels of the different dimensions increasing over time.

The observed improvement in collaboration underscores the importance of group-work in fostering teamwork skills, a core principle of the approach being studied. Additionally, the positive change in students' emotions demonstrates the approach's ability in creating a safe learning environment. PjBL is found to promote a sense of purpose and ownership. The frequent instance of agency highlights the value of voice and choice inherent in PjBL.

A similar study conducted by Pudjiarti et al., (2024) exploring the impact of PjBL on engagement, collaboration and academic achievement supports these findings. The study depicts high levels of students' active participation and involvement in the learning process. The study further reports better teamwork skills. All of which contribute to a significant improvement in students' overall academic performance. Another study examining PjBL reports developments in different competencies such as collaboration, critical skills, communication skills, and autonomy. (Sánchez García, 2023)

Consistent with other studies, PjBL also prompts students' cognition thanks to its investigative nature. Chang et al., (2024) investigated students' engagement in an authentic real- world context compared to non-real-world context and found out that the former increases student involvement, enforces group dynamics and promotes deeper understanding of technology integration on projects. Such real-like activities pertain to PjBL premises.

Yu (2024) also found that PjBL increases information intake, cognitive engagement, and dynamic application of thoughts. Similarly, Salam et al., (2016) conducted a quasi-experimental study which

further supports the findings of this paper, indicating significant differences in students' engagement in favor of the experimental group.

Both structural and psychological factors are catalyst to students' engagement. They interconnect and contribute to the overall learning experience. For instance, while the novelty of the approach and real-life relevance of tasks boost students' interest, positive teacher-student relationships create a safe learning environment, which in turn promotes voice, choice and agency. All of which boost students' engagement. Technology also plays a role in promoting agency. All these factors contribute to a significant boost in the different dimensions of engagement. A study conducted by Hosseini et al., (2022) supported these findings revealing that classroom social climate and foreign language enjoyment significantly predict students' engagement. In the same vein, Dewi and Roslaimi (2024) further investigated the construct of engagement in PjBL and found that task orientation, teacher support and enjoyment are important factors reinforcing students learning experiences. Another study conducted by Faro et al., (2025) revealed that factors such as teacher's support, technology support, and students' confidence account for 69 % of the variance in student's engagement, with teacher's support as the strongest factor. Zhong et al., (2024) further highlights the positive role students' interest, group dynamics and task types in augmenting students' engagement in the learning process.

## 6. Conclusion

This study investigates students' levels of engagement within the PjBL framework and examines the factors affecting it. The findings reveal PjBL's value and potential in boosting students' engagement; therefore, increasing and maximizing learning outcomes. The study further points out structural factors such as the interplay of PjBL phases, voice and choice, novelty of the approach, technology use; and psychological factors such as interest, group dynamics, instructor support and desire for achievement as key factors contributing to engagement.

It is highly important for curriculums to have these factors as the foundational premises of their approach. It is high time for curriculums to start allocating more room to students' voice and choice while allocating collaborative activities which also call for the use of technology. Psychological factors should also be considered when planning a unit or a lesson. Boosting students' interest and providing more support from the part of teachers are also to be taken into consideration. PjBL stands out as a comprehensive approach tackling a variety of factors which boosts engagement. Hence, it is highly essential for policymakers and curriculum designers to integrate this approach in the English language curriculum. In the same vein, it is crucial for teacher training centers to target such a student's centered approach shedding more lights on how it is effectively implemented.

Despite its contributions, this paper remains limited in certain ways. First, its qualitative nature along with its small sample make it hard to generalize the findings. Future research could supplement this study by adopting a quantitative approach with a larger sample to maximize the generalizability of the results. Second, the study tackled public high school students in an urban setting, which may not reflect the same perspectives in rural areas. Future studies could tackle and compare different settings such as urban, rural, public and private contexts. Furthermore, the 8-week duration of PjBL implementation that the sample experienced remains relatively short. Students may have different perspectives if this approach is adopted throughout the school year. Further research could implement the approach for a longer duration to examine any changes in students' engagement and perspectives on the approach. Longitudinal research could yield more rigid findings with regards to how sustained exposure to PjBL affect students' skills, attitudes and academic achievement.

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