

# The Experience of EFL Students Engaging in Collaboration Through Project-Based Learning

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## Abstract

This study investigates how Project-Based Learning (PBL) can promote collaboration and critical thinking in an EFL junior-high context. The project was carried out with nine 7th-grade students at a Junior High School in Kfar Kanna, Israel. Across four 45-minute lessons, students worked in three small groups to design a “dream” classroom, library, or schoolyard. Data was collected through classroom observations and interviews with one candidate from each group. The findings indicate that students enjoyed group work and expressed pride in their outcomes. Collaboration appeared in the ways they shared ideas, divided roles, negotiated disagreements, and reached compromises. Groups that appointed a peer leader showed clearer organization and higher productivity. Communication and active listening were essential for resolving disagreements, though some students remained passive or hesitant to participate, requiring teacher support. Overall, the project encouraged problem-solving, communication, and creativity, while shifting responsibility from the teacher to the learners. The study highlights both the potential and the challenges of using PBL to foster collaborative learning in Arab-Israeli EFL classrooms.

## 1. Introduction

Group work has become a common recommendation in modern education because it helps students develop not only academic skills but also social and life skills. When learners work together, they share ideas, listen to different perspectives, and solve problems as a team. These abilities are vital for success in school and for preparing students to participate in society. In English as a Foreign Language (EFL) classrooms, group work is also seen to create more chances for communication and meaningful use of the language. However, group activities are not always successful. Sometimes students do not know how to divide the tasks fairly, or they are not used to listening and responding to each other in a productive way. In many cases, one or two learners dominate the discussion while others remain quiet, which reduces the learning

value of the activity. This made us wonder how teachers can design group work that is structured, fair, and beneficial for all students. One method that offers such structure is Project-Based Learning (PBL), where learners plan, design, and present a shared product together.

### **1.1 Teaching Context**

This study was carried out during the primary researcher's practice teaching at a Junior High School in Kfar Kanna, Israel. The participants were nine 7th-grade students, divided into three groups of three. Over four lessons of 45 minutes each, each group chose one of three projects: designing a "dream classroom," a "dream library," or a "dream schoolyard." They were asked to work together to produce a plan, and the teacher (primary researcher) provided a design guide with guiding questions to help them brainstorm ideas, divide responsibilities, and stay organized (see Appendices 1, 2, & 3). The students' first language is Arabic, but they also learn Hebrew as a second language and study English as a foreign language. English is rarely used outside the classroom, so the school environment is the main place where they can practice using it. This made the project especially important because it provided them with an opportunity to use English in a way that felt purposeful and creative, rather than limited to grammar or vocabulary exercises.

### **1.2 The Challenge**

In Arab-Israeli schools, English lessons are often dominated by textbooks, focusing heavily on grammar rules, vocabulary lists, and reading comprehension texts. While these are important, this traditional approach leaves little room for student-centered activities. Group work is sometimes introduced, but based on our experiences of observing teachers, we found that in many cases it is done randomly without clear goals or structures. As a result, some students take over while others stay passive. This makes it difficult for learners to develop the collaborative skills that are essential in education and in life. In the primary researcher's own classroom observations as part of practice teaching, she noticed that students sometimes became frustrated when roles were not defined or when decisions could not be reached and, as a result, they would stop trying to make group work function well. They often lacked strategies for compromise, negotiation, and persuasion, all of which are important skills for working with others.

This challenge also reminded the primary researcher of her own experience as a learner. When the primary researcher was a school student, she was rarely given the chance to work in groups. Later, when she began college, she suddenly found herself working on many group assignments, and because she had no background in this kind of learning, she struggled to divide the work fairly and to handle differences of opinion. Sometimes she insisted on her ideas and found it hard to accept others'; other times she gave up too quickly. These struggles showed the primary researcher how important it is for students to be introduced to collaboration earlier. As a teacher-in-training, the primary researcher wanted to create learning experiences where students practice these skills now, so they will not face the same difficulties later on.

### **1.3 The Issue to Explore**

Based on these challenges, we wanted to explore whether PBL could provide a stronger framework for group work in our classrooms. Unlike traditional group activities, PBL asks learners to plan and create something meaningful together. This requires them to communicate, divide responsibilities, and make joint decisions. PBL also supports the goals of the 2020 Israeli

English curriculum (Ministry of Education, 2020), which highlights the development of 21st-century skills, including collaboration, creativity, problem-solving, and critical thinking. By working on a project, students can practice these skills while also using English more naturally. However, despite these policy goals, we have observed from her experiences in schools that many teachers remain hesitant to adopt PBL, perhaps because they have not received sufficient training in its methods. Some seem unfamiliar with how to design and manage project-based tasks effectively, while others find it difficult to implement such approaches in large classes or under the pressure of meeting heavy curricular demands and preparing students for exams.

#### **1.4 Purpose of the Study**

The purpose of this action research was to examine how 7th grade EFL Arab-Israeli students experienced collaboration when engaged in a PBL task. We wanted to see whether they would divide responsibilities more fairly, whether quieter students would have more chances to participate, and how they would deal with disagreements. We were also interested in the role of the teacher in guiding and supporting the process. For the primary researcher, this study was not only about testing PBL as a teaching method but also about improving her own practice. She wanted to learn how to create opportunities where all students can feel involved, confident, and responsible for their work. By looking at both the successes and the difficulties of this project, we hoped to discover whether PBL could be an effective approach for fostering collaboration in Arab-Israeli EFL classrooms.

## **2. Literature Review**

### **2.1 Traditional Learning in EFL**

For many years, education has been dominated by traditional, teacher-centered approaches (Tularam & Machisella, 2018). In such classrooms, teachers control the flow of information while students are expected to memorize and reproduce knowledge. While this approach ensures coverage of curriculum content, it leaves little space for creativity, autonomy, or problem-solving (Tularam & Machisella, 2018).

In English as a Foreign Language (EFL) settings, this teacher-centered model is still common, with lessons often textbook-driven and emphasizing grammar, vocabulary, and reading comprehension (Bolsunovskaya et al., 2015; Fragoulis & Tsiplakides, 2009; Nguyen, 2011). Although such practices can build linguistic accuracy, they offer fewer opportunities for meaningful communication and real-world use of English (Bell, 2010; Nguyen, 2011). As a result, students frequently work individually on form-focused exercises rather than on fluency and interaction (Johnson & Johnson, 1987; Tularam & Machisella, 2018). In Arab-Israeli schools, where planned classroom work is a primary site for English use, the national curriculum explicitly encourages collaboration and purposeful language use (Ministry of Education, 2020).

### **2.2 Group Work in Education and EFL**

Group work emerges as a response to the limitations of traditional learning. Instead of working alone, students collaborate, share ideas, and solve problems together. In collaborative activity, learners co-regulate and ground shared understanding rather than simply splitting tasks (Dillenbourg et al., 1996), and cooperative structures specify how participation and

accountability are organized (Johnson & Johnson, 1987). Research shows that group work can deepen learning and critical thinking when structures and facilitation are present (Johnson & Johnson, 1987; Hmelo-Silver et al., 2007), but typical challenges include uneven contributions and conflict (Aslanides et al., 2016).

In EFL classrooms, group work creates authentic opportunities to use the target language. As Pinner (2013) explains, authenticity in language learning is not merely about using “real” materials or native-speaker models but about authenticity of purpose; when students use the target language as a tool to learn and communicate meaningful content. In this sense, authenticity is directly linked to learners’ engagement, aims, and reasons for communication, making project-based learning particularly effective for promoting purposeful and meaningful language use (Pinner, 2013). Projects can integrate skills and increase motivation (Gibbes & Carson, 2014), and project work has been shown to enhance EFL learners’ confidence and independence (Fragoulis & Tsiplakides, 2009). To keep participation balanced, cooperative norms and roles are helpful (Johnson & Johnson, 1987). At the same time, group projects can strain time and workload distribution (Bolsunovskaya et al., 2015; Aslanides et al., 2016). Together, these findings indicate that group work can make EFL learning more meaningful, provided structure and teacher support are in place (Hmelo-Silver et al., 2007).

### **2.3 PBL in Education: Origins and Wider Use**

The limitations of both traditional teaching and unstructured group work led to more structured, student-centered approaches such as Project-Based Learning (PBL). PBL has its roots in medical education, where Barrows (1986) introduced problem-based learning to prepare students for real cases rather than memorized facts. Dewey’s (1938) experiential learning also influenced PBL, emphasizing that students learn best through meaningful, hands-on experience.

Over time, PBL spread across disciplines. Thomas (2000) described it as an extended inquiry guided by a driving question; Gibbes and Carson (2014) demonstrated its capacity to integrate skills and motivate learners; and Nguyen (2011) defined PBL as learning organized around complex tasks, decision-making, and product creation. PBL has also been linked to 21st-century skills such as collaboration, creativity, and critical thinking (Bell, 2010; Trilling & Fadel, 2009). At the same time, studies warn of difficulties: engagement can rise, but implementation often requires significant resources and sustained facilitation to prevent uneven contributions (Aslanides et al., 2016; Bolsunovskaya et al., 2015).

### **2.4 PBL in the EFL Classroom**

In language learning, PBL gives learners authentic reasons to use English. Through projects, students plan, negotiate, and present ideas in purposeful ways (Gibbes & Carson, 2014). PBL has encouraged more active participation and confidence in speaking (Karyawati & Ashadi, 2018) and increased teamwork and engagement in EFL classes (Kavlu, 2017). Motivation can improve, but without guidance, participation may become superficial (Bolsunovskaya et al., 2015). Effective teacher facilitation helps keep learners engaged and on task (Hmelo-Silver et al., 2007). Very recent studies extend this picture: a quasi-experimental study linked gains in EFL writing performance to project work that strengthened idea generation, organization, and peer cooperation (Andargie et al., 2025). In EFL speaking classes, PBL increased behavioral, emotional, and cognitive engagement, although agentic

engagement (speaking up to shape the work) did not rise without explicit support for autonomy and voice (Zhong et al., 2025).

## **2.5 Teaching Context: The Arab-Israeli EFL Environment**

The teaching and learning of English for Arab students in Israel occur within a multilingual environment where English is often a fourth language (Amara, 2014). This complexity begins with Arabic itself, which is diglossic: the spoken dialect differs considerably from Modern Standard Arabic (MSA), the formal written variety (Saiegh-Haddad, 2003). Because of this linguistic gap, children encounter MSA in school almost as a second language (Saiegh-Haddad, 2003; Saiegh-Haddad & Henkin-Roitfarb, 2014). Learning to read and write, therefore, requires bridging significant differences between spoken and written Arabic.

In addition to Arabic, students must master Hebrew, the dominant language in education, work, and public life. Proficiency in Hebrew is essential for academic and professional advancement (Amara, 2014). English, meanwhile, is highly valued as a global language of science, technology, and communication, but it competes with Hebrew for instructional time and emphasis.

The national English curriculum applies uniformly to all schools. However, research shows that textbooks emphasize American culture while Arab culture appears in only about 4.5% of the content (Amara, 2017). Teachers note that culturally familiar materials enhance motivation, while an exclusive focus on Western content can reduce engagement (Amara, 2017). This lack of cultural representation partly explains differences in English achievement levels between Arab and Jewish students (Amara, 2014).

Thus, the EFL classroom functions not only as a space for language learning but also as an environment where students navigate multiple linguistic and cultural frameworks (Amara, 2014, 2017).

## **2.6 PBL and Collaboration in Arab-Israeli Contexts**

Despite its promise, research focused specifically on PBL in Arab-Israeli junior-high EFL classrooms appears limited; much of the Israeli PBL literature addresses other subjects or mixed settings. At the policy level, the English Curriculum 2020 explicitly promotes collaboration, problem-solving, and creativity and encourages the use of group work and projects to foster these skills (Ministry of Education, 2020). These priorities make it timely to examine how PBL might offer a more structured pathway for equitable participation in Arab-Israeli EFL lessons and how teachers can support students during projects in this context.

## **2.7 Summary and Gap**

The literature shows a clear progression: traditional learning builds knowledge but limits autonomy; group work opens possibilities but requires careful structure; and PBL provides a framework that integrates authentic communication, collaboration, and 21st-century skills (Bell, 2010; Karyawati & Ashadi, 2018; Kavlu, 2017; Nguyen, 2011; Trilling & Fadel, 2009). The newest EFL evidence (2025) reinforces this, showing measurable gains in writing and broad engagement, while also reminding us that learners still need visible scaffolds to participate equitably (Andargie et al., 2025; Zhong et al., 2025).

This study addresses the gap by exploring how Arab-Israeli junior-high students experienced group work in a PBL project and what supported or hindered collaboration. The research questions were: What is the experience of EFL students in collaborating through PBL? and What is the impact of PBL on developing collaboration and critical thinking skills in the English language for EFL junior high students?

### **3. Methodology**

#### **3.1 Design**

The researchers' goals were to evaluate the impact of PBL on the development of collaboration and critical thinking skills, as well as the experience of EFL students in collaborating through PBL. Therefore, a qualitative action study design was the most appropriate approach to choose for this research, as it allows for an in-depth, contextual, and participant-centered exploration. Qualitative research involves collecting and analyzing non-numerical data to understand concepts, opinions, or experiences (Tenny et al., 2022). Exploratory Action Research (EAR) helps teachers explore, understand, and improve their own practice in context (Smith & Rebolledo, 2018).

#### **3.2 Context and Participants**

This research was conducted during the primary researcher's teaching practicum at a Junior High School in Kfar Kanna, Israel. The school serves Arab students in grades 7-9. English is taught as a foreign language, alongside Arabic (the mother tongue) and Hebrew (the second language). Students are exposed to English mainly in the classroom, as it is rarely used in their daily lives. The participants were nine seventh-grade students (four boys and five girls) aged 12-13. All were native Arabic speakers with somewhat similar English proficiency levels, though individual differences existed in confidence and willingness to engage and speak. Students were divided into three groups of three. Each group included learners of varying ability, so stronger and weaker students worked together. This arrangement reflected the study's aim, which was to explore collaboration and how students supported or struggled with each other in group work. The project was carried out across four consecutive 45-minute English lessons. The lessons were part of the normal timetable and approved by both the school and the primary researcher's practicum supervisor. The classroom teacher is also the primary researcher in this study/

#### **3.3 Procedure**

We followed the principles of PBL. Instead of letting students work individually on textbook exercises, we encouraged them to collaborate on a project that required planning, negotiation, and a final product. Each group of the three groups was assigned one of three creative topics: Group A: Design Your Dream Classroom; Group B: Design Your Dream School Library; Group C: Design Your Dream Schoolyard. The time allocated for the project was four lessons of 45 minutes each. To guide their collaboration, the teacher provided a planning guide that included prompts for brainstorming, dividing roles, and writing brief descriptions in English (see Appendices 1, 2 & 3). This ensured the activity had structure and encouraged participation from all group members.

The project unfolded in four stages.

### **Lesson 1 (Introduction and Planning)**

The teacher explained the goals of the project and divided students into groups. Each group selected a topic, but we began brainstorming together as a big group so that all groups could help each other with ideas. The small groups then started recording suitable ideas in the planning guide, discussing features they wanted to include in their poster, and the material needed for the project. Students were encouraged to maintain their conversations in English.

### **Lesson 2 (Developing Ideas)**

Groups started working on their projects. They began sketching drafts and writing short English sentences. Roles such as “note-taker,” “designer,” and “idea-giver” were discussed. The teacher moved between groups, prompting quieter students and supporting vocabulary or grammar when needed.

### **Lesson 3 (Creating the Product)**

Students created their final posters after making changes and improving the drafts. They wrote sentences in English describing their dream classroom, library, or schoolyard, and illustrated the posters with drawings. The teacher observed how groups negotiated wording, shared responsibilities, and solved disagreements.

### **Lesson 4 (Presentation)**

Each group presented its poster to the class. All members were encouraged to speak, even briefly, to describe one part of their project. Classmates asked simple questions, giving presenters more opportunities to practice English.

Throughout the project, the teacher’s role was that of a facilitator. She supported and guided students but avoided taking over their work. This allowed students to practice making decisions, practice problem-solving, and taking ownership of the learning process.

## **3.4 Data Collection**

We used two methods to document collaboration and critical thinking.

### **1. Classroom Observations**

The teacher observed all four lessons and documented behaviors and interactions in a notebook (e.g., how roles were divided, how decisions were made, how disagreements were handled, who participated/silent moments, evidence of planning or justifying choices).

After the lessons, the primary researcher analyzed these observation notes to identify patterns related to collaboration (e.g., equal/unequal contribution, leadership moments, turn-taking, negotiation).

### **2. Individual Interviews (one per group)**

After the project, the teacher conducted three individual, open-ended interviews, one student from each group, to explore experiences, perceptions, and reflections on PBL’s impact on collaboration and critical thinking.

#### **The interviewees were purposely chosen.**

**Group A** student worked well with peers and divided work equally.

**Group B** student contributed less and did not hold a critical role.

**Group C** student took leadership, helped move the group from argumentative/chaotic to agreeing/achieving.

Interviews were open-ended (to let students speak freely) and focused on: how roles were shared, how decisions were made, what helped/hindered participation, and when they used critical thinking (e.g., comparing options, justifying choices).

### **3.5 Ethics**

We obtained permission from the school principal and the homeroom teacher before collecting data. Students were informed that participation was voluntary and unrelated to grades; pseudonyms were used in interviews to protect privacy. All data is stored privately in a password-protected file with access limited only to the researchers.

### **3.6 Data Analysis**

We analyzed the observation notes and the three interviews following Tisdell et al. (2025). First, we coded the data line-by-line to identify actions and ideas linked to collaboration (e.g., role-sharing, participation, negotiation, leadership). Next, we grouped related codes into categories and named them. These categories were not predetermined but emerged inductively from the data as recurring behavioral patterns observed across groups. This approach allowed the analysis to remain grounded in participants' actual classroom interactions rather than in pre-established theoretical frameworks. We then refined or merged categories into a manageable set and checked them across data sources (observations vs. interviews) for consistency. Finally, we linked the categories to the research questions to build the themes reported in the Findings. To enhance the credibility of the findings, data were triangulated through both classroom observations and follow-up interviews, and the emerging interpretations were compared across these sources for consistency.

This study assumes that students' observed behaviors and interview responses authentically reflected their engagement and collaboration throughout the project, since the data were collected in their regular classroom setting over several sessions, and the findings from both observations and interviews were consistent.

## **4. Findings**

### **4.1 Overview of outcomes**

All three groups finished their projects on time, and during the final stage, each group presented its project to the other groups. They described their topic, explained the ideas they had developed, and justified their designs by discussing why they selected certain ideas or details to include in their projects. Students were speaking mostly in English throughout the process; they would switch to Arabic when they were stuck with words or use gestures or even draw the idea they tried to express, but they used English way more than they would in a traditional lesson. Regarding how the work progressed within the groups, group A moved steadily from the first lesson; they communicated easily and divided roles without prompting. Group B and Group C both stalled early with overlapping talk and quick "no's." In Group B, things shifted after the teacher paused them, set a one-by-one speaking rule, and helped them split roles (writer, idea-finder, designer). In Group C, things improved when one student stepped up to coordinate, assigning turns and tasks. The variations observed among the groups can be explained by differences in group dynamics and individual personalities. Group A's structured organization, led by a student who assumed a leadership role, reflected a task-

oriented approach that supported efficiency and role clarity. Group B's equal participation and smooth cooperation suggest high interpersonal compatibility and shared understanding of the task. In contrast, Group C's less balanced participation highlights how varying confidence levels and social comfort can influence collaboration and task performance. Furthermore, each team developed a distinct design style. Group C was more artistic, while the other groups were better at explaining themselves with words. All three groups demonstrated critical thinking skills and worked well together. In their projects, students were creative and thought deeply about their choices, which reflect their needs and wants in their school. Students thought about the smallest details, like the painting color of the walls and how they want items organized, which shows that they care about the place they spend their time at and want it to feel comfortable. Also, two groups integrated technology in their designs, whether it be a smart TV for the class or an iPad for the library to showcase the books found, which shows how integrating technology in schools is important for this generation.

#### 4.2 Participants' Projects (Posters)

Figure 1 displays calm blue walls and small lamps ("blue makes us comfortable and calm"); even ceiling lights; only 15 students ("students concentrate better"); seating so everyone can see; Smart TV by the whiteboard; a reading corner; class rules posted; tall windows; a tray to store phones during class.

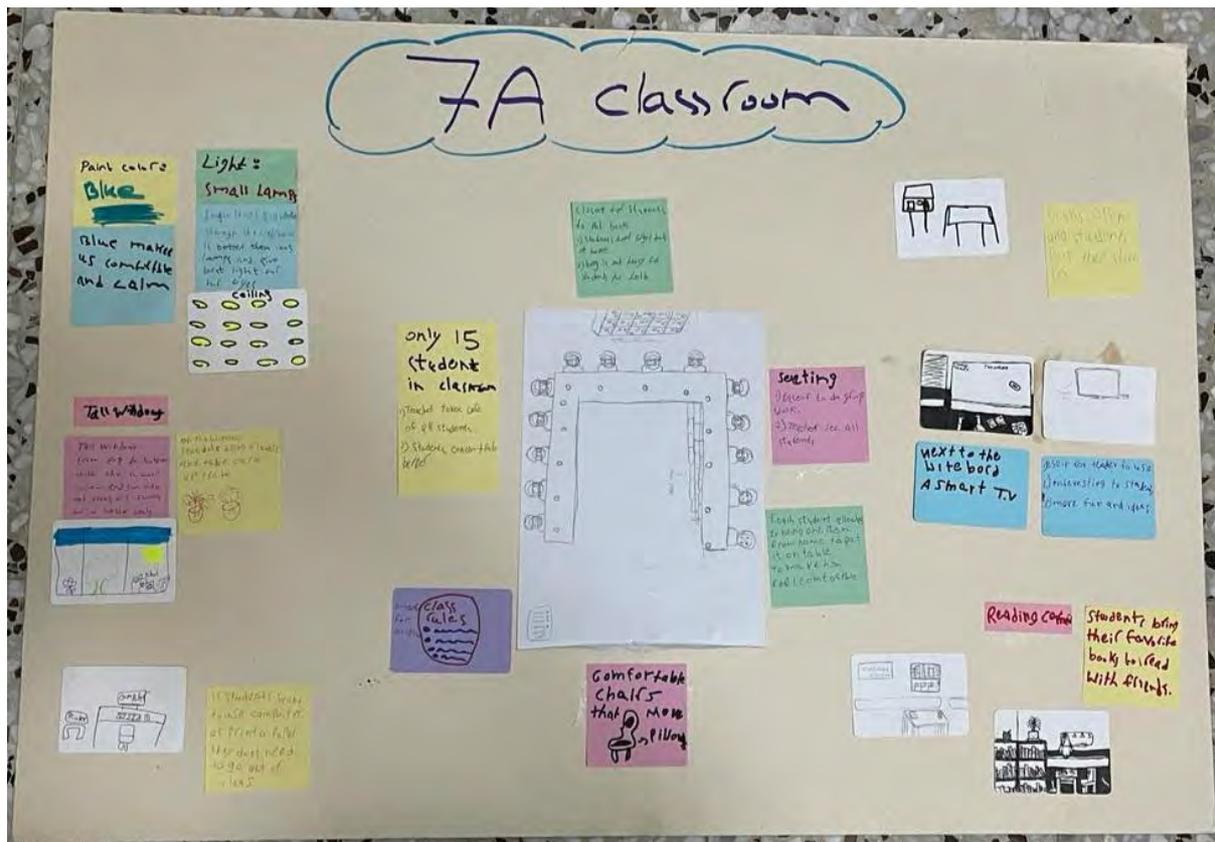


Figure 1. Group A's Project – Dream Classroom

Genre shelves, soft couches, a group study room, secretary's desk, noise-cancelling door, cozy stars/planets on the ceiling, warm flooring, and iPad access with rules (cover + lock, opened only by the librarian) are shown in Figure 2.



Figure 3 demonstrates the students' aim for basketball courts, seating zones, student café, first-aid room, restrooms; lots of trees/flowers with a hiking path "to release stress"; chess tables and quiet corners; clear zones for play, rest, and socializing.

### 4.3 Codes and themes

#### 4.3.1 Collaboration and Working Together

All groups demonstrated real collaboration; sharing ideas, dividing tasks, and keeping the work moving. Students described enjoying the process, especially with friends (Group A). A good example is Group A's debate over the "culture corner" seen in Figure 1. Rather than getting stuck, the group listened, compared options, and reached an agreement: "*We divided the work... one searched on Google, one came up with ideas, one wrote everything down.*" (Student 1). The teacher also noted moments where collaboration sped up after students gave themselves a deadline; a student in group C said to his teammates, "We have ten minutes to finish coming up with ideas and then move to writing", and the teacher noticed that this deadline made them work faster. Group B needed a little push from the teacher to work; they disagreed a lot and were not listening to each other, so she intervened and divided roles, and from that moment on, they collaborated much better.

#### 4.3.2 Leadership and Responsibility

Responsibility looked different across teams. Group A showed rotating responsibility: the writer took the lead during drafting, the designer during layout. Also, in group C, when a leader emerged, everything started to take place, "*I divided the work... I came up with ideas and directed everything... We were fighting all the time; I had to organize them and listen to everyone. I always do.*" Once the leader summarized, invited input, and set turns, pace improved and agreement increased. We researchers could also see the importance of a leader in group B. Since they lacked leadership, they had more disagreements and pauses than the other groups. We also realized the importance of a teacher figure. Even though she only monitored to keep the role facilitative rather than controlling, students still needed her to help them work more cooperatively.

In all cases, leadership that organized (rather than controlled) lifted participation.

#### 4.3.3 Listening and Communication

Listening and clear talk were essential. In Group B, Student 2 struggled to get a hearing and became passive: "*I did not share as much as the others... I tried; they did not agree.*" The atmosphere changed when we introduced turn-taking. Student 2 recalled after being fed up: "*I stopped them and told them to talk one by one... I did not allow someone else to talk before everyone gave their opinions.*" Once turns were predictable, more ideas were fed into the discussion and stayed.

#### 4.3.4 Patience, Negotiation, and Compromise

Students practiced patience as they argued, justified, and adjusted. Student 1 tried to keep the culture corner: "*I tried to justify... they did not get convinced; then they convinced me with a different idea.*" Negotiation led to practical compromises across groups, e.g., Group B's iPad station as seen in Figure 2 gained approval after a safety plan ("*cover and lock, only the librarian opens it*"), and Group C scaled back extra sports areas after hearing "*this is a school, not a summer camp.*" These moments showed flexibility as students accepted reasons and moved on.

#### **4.3.5 Individual Contributions and Frustration**

At times, individuals held back. Student 2 describes the slide from effort to withdrawal: *“I did not share as much... I did not justify... When they did not listen to me, I did not listen to them.”* Later, once turns were enforced and the writer role was assigned, the same student re-entered: *“They came up with ideas and I wrote them.”* That role gave a concrete way back in without needing to “win” the debate. However, this compromise could sometimes make students feel dissatisfied with the outcome. For example, Student 2 revealed in the interview that he had an idea of building the library in the schoolyard with greenery all around it. This idea shows creativity, but unfortunately, he did not share it with the group because he feared they would laugh at him!

#### **4.3.6 Reflection and perception of Group work**

Group make-up mattered. Group A moved smoothly and needed few prompts. Group B struggled with a shy member until norms were established. Group C illustrated the value of a designated coordinator; once someone summarized options and allocated turns, disagreement shifted to being a decision. According to the teacher’s notes, quick time checks and posted steps also helped groups reflect and self-correct. Also, by the final lesson, students spoke positively about the experience. *“So fun! I want to share our ideas with our homeroom teacher...”* (Student 1). *“Tired, but happy and proud of myself.”* (Student 3). Students also noted that groups were faster and produced more ideas than working alone. This shows that students realize the benefits and enjoyment of group work.

#### **4.3.7 Creativity and Innovative Solutions**

Creativity appeared in purposeful ways. Group B suggested iPads to display book information (which could be seen in Figure 2); technology tied to access and organization. Group C treated the schoolyard like a park, seen in Figure 3 (jogging path, more seating, greenery) to reduce stress. Group A rearranged seating into a rectangular formation for visibility and added a culture corner to celebrate languages/cultures, as seen in Figure 1. Student 2 extended the idea further: *“I would make the library in the yard with flowers and trees... it is better to read in nature; you feel like you are in the story.”*

#### **4.3.8 Justification and Standing up for oneself**

Students often needed to stand by an idea and justify it. Clear reasons (or quick sketches) changed minds. For example, Student 1 had this idea of a culture corner and said, *“They thought it would be boring... when I drew it and gave an example, they liked it.”* Student 2 had a similar experience with the iPads and explained, *“They thought students would break the iPad; I said there is a cover and a lock, and only the librarian can open it.”* And student 3 convinced his friends with the greenery the same way: *“They thought it would be muddy and buggy, but when I drew it, they agreed.”* I also heard the challenge: Student 2 sometimes avoided defending ideas, *“I did not [justify]... I told them and they said no.”*, showing how justification skills are still developing.

#### **4.3.9 Listening to Others and Reluctance**

Without norms, reluctance grew quickly. Student 2 admitted mirroring the group: *“When they did not listen to me, I did not listen to them.”* Once turn-taking and brief “because...” statements were expected, more ideas stayed on the table and were judged on reasons rather than volume.

#### **4.3.10 Not Working Well with Others When Uncomfortable**

Comfort influenced voice. Student 2 said they would work in groups again, “*but with people I am more comfortable with.*” The teacher also saw natural pairs form within groups, which sometimes left a third member quiet until she prompted a check-in. Small seating shifts and specific roles helped balance participation.

#### **4.3.11 Productivity and Passiveness**

The teacher observed surges of productivity after micro-goals (e.g., “choose two ideas and justify them”). Students themselves noticed: “*When we knew the steps, we worked.*” Passiveness rose when steps were vague or after repeated rejections, again pointing to the need for visible steps and gentle re-entry roles for quieter students.

#### **4.3.12 Group Environment and Individual Preferences**

Productivity often reflected the environment. Groups that sat closer to each other and who made sure they had markers and sticky notes around all the time, generated and captured ideas quickly. Posters with clear labels/zones (e.g., rules, reading corner, tech station) showed that students valued organization. Preference mattered too; liking your partners often meant more initiative, while discomfort pulled some students toward observing rather than leading.

### **5. Discussion**

Our goal, as stated in the research questions, was to see what collaboration really looks like for our students when working in groups to create a project. What the teacher saw, and what students told her, points to a simple truth with big consequences for our classrooms. Collaboration did not appear because the teacher asked for it; it appeared when the work was made visible. Once roles, turn-taking, and small next steps were clear, groups behaved like teams, very much the kind of structure cooperative learning recommends (Johnson & Johnson, 1987). When those supports were not in place, talk overlapped, decisions stalled, and one or two voices carried too much weight, which matches Dillenbourg et al.’s (1996) warning about weak mutual regulation. This pattern is also noted in recent EFL work. PBL lifts participation when roles and next steps are visible; without those scaffolds, some voices still fade (Zhong et al., 2025).

Group A showed the cleanest version of this. From the first lesson, they said, in Student 1’s words, “we divided the work... one searched on Google, one came up with ideas, one wrote everything down,” and then they just kept going. That visibility, who does what, seems almost trivial, yet it unlocked steady progress and kept everyone inside the task, which matches Johnson & Johnson’s view on the importance of clear roles and individual accountability in group work (1987). Group B and Group C taught us the same lesson in reverse. Early on, they were noisy and circular; ideas were thrown out quickly and just as quickly dismissed. The moment the teacher named a simple routine (“one person speaks at a time”) and asked them to split roles, the whole climate changed. Student 2 even described calling that pause herself: “I stopped them and told them to talk one by one.” After that, participation widened and ideas began to move somewhere, exactly what the light, just-in-time scaffolds in PBL are meant to do (Hmelo-Silver et al., 2007), and in line with 2025 evidence on the value of explicit participation supports (Zhong et al., 2025).

Leadership mattered, but not the “I will do it” kind. In Group C, one student stepped up, and the group finally found a rhythm, but what worked was how he led. He did not take the

marker and own the poster; he listened, summarized, gave turns, and kept time. “I divided the work... I directed everything... I had to organize them and listen to everyone,” he said afterwards. That facilitative style balanced pace with inclusion, which fits guidance on guided facilitation in collaborative inquiry (Hmelo-Silver et al., 2007) and the cooperative-learning focus on promotive interaction rather than task capture (Johnson & Johnson, 1987). When leadership slid toward fixing things alone, others stepped back; when it stayed focused on organizing the work, more students stayed engaged, and decisions came faster.

The mechanism that turned arguments into decisions was justification. Over and over, a short reason or a quick sketch settled debate better than repeating the same point. The “culture corner” in Group A was accepted only after Student 1 drew it and showed what would happen there. Group B’s iPad station became acceptable when a safety plan appeared: “a cover and a lock... only the librarian can open it.” Group C’s greenery won students over only when Student 3 drew it and showed how it would look. In each case, a brief “because...” replaced personal preference with something the group could evaluate. That mattered for language learning, too. Project work is argued to make language purposeful and audience-focused (Bell, 2010; Fragoulis & Tsiplakides, 2009), which we saw here in explanations, comparisons, and polite persuasion, and it aligns with 2025 evidence linking PBL to gains in EFL writing via stronger idea generation and organization (Andargie et al., 2025).

At the same time, the data reminded us how fragile participation can be. Student 2’s arc in Group B is a good example. After a few early rejections, she moved from trying to not trying: “I did not share as much... I did not justify... when they did not listen to me, I did not listen to them.” No speech about “speak up” would have solved that. That student was frustrated with her group, and perhaps her shyness did not allow her to speak up for herself, so it was obvious that the teacher needed to intervene so that she would not end up being marginalized. What worked was structural, a predictable speaking order and a concrete role, writer, brought her back without having to “win” an argument. This is precisely why simple interaction norms and individual accountability matter (Johnson & Johnson, 1987), and it echoes the 2025 finding that agentic engagement does not automatically rise without explicit support for autonomy and voice (Zhong et al., 2025).

Moreover, emotions were not a side story in this study. Students named the highs and lows plainly: “So fun!,” “tired, but happy and proud of myself,” and “it makes me angry sometimes, but it teaches me to be patient.” We noticed that frustration spiked when next steps were fuzzy and dropped as soon as we posted a micro-goal or agreed on turns. In other words, the same structures that supported fairness also stabilized the classroom mood long enough for everyone to finish well and feel ownership of the product. In our context, where English is rarely used outside school, this kind of stable, purposeful space matters.

Another thread running through the projects is that students moved from decoration to design. When the teacher kept asking “why?”, the posters shifted toward needs and guided students to show creativity. Figure 1 shows comfort (blue walls, small lamps), focus (seating so everyone can see), safety (lockable tech), inclusion (a culture corner), and Figure 3 shows wellbeing (trees, paths, quiet corners). Students were not just adding nice features; they were solving problems, very much in line with PBL accounts that highlight problem-solving, decision-making, and tangible products (Bell, 2010; Nguyen, 2011) and with EFL studies reporting higher engagement and purposeful language in project work (Fragoulis & Tsiplakides, 2009). This also sits well with recent results that connect PBL cycles to

measurable gains in writing when idea generation and organization are emphasized (Andargie et al., 2025).

Context still mattered. Group A benefited from being friends; they had trust and easy communication from the start. Group B showed how quickly discomfort can push a student to the edge of the task, and how quickly a simple routine can pull her back in. Group C showed the value and the risk of a “head”; when the job was to invite voices and move decisions, the role helped everyone; when the job slid toward doing the task, engagement shrank. Across all three, small physical choices (sitting close, having markers and sticky notes ready) made it easier to externalize thinking and keep everyone’s ideas visible. These observations sit alongside critiques of traditional, teacher-centered patterns that can limit autonomy unless participation is intentionally redesigned (Tularam & Machisella, 2018). This is also the direction encouraged by the English Curriculum 2020 for junior-high EFL (Ministry of Education, 2020).

Pulling all this together, our main takeaway is practical. Structure made fairness possible. Roles, turn-taking, and a steady expectation of “give me a reason” turned “being in a group” into doing group work. When those pieces were visible, quiet students tried again, active students started to listen, and groups produced designs they were proud to defend, like a culture corner that convinced others after a sketch, an iPad plan that felt safe with a simple rule, and a green yard that won support once it was drawn. At the same time, the findings showed us how sometimes things might not go the way we want them to; the teacher wanted all students to work comfortably, but Student 2, who had some frustration, showed her that group work cannot be perfect and that some students naturally shine in group work while others take on the passive role, which recent EFL evidence also notes. Overall engagement can rise under PBL, while agentic participation still needs explicit scaffolds (Zhong et al., 2025). For us, that is the bridge between the literature and her classroom. PBL gives a clear purpose, and small, visible structures make that purpose equitable and doable in our setting.

## **6. Reflection**

This project made us more convinced that group work is essential in the classroom and showed us that it needs structure and a goal, which are things PBL contains. This research has also changed the way the teacher sees her role. The teacher (primary researcher) went in hoping students would “work well together when they have a structure”; she came out realizing that her job is to build the conditions that make that possible. We also realized that small details could make a huge difference in group work dynamics; naming roles, asking for one voice at a time, posting the next tiny step. When the teacher did that, groups behaved like teams. When she did not, talk overlapped, decisions stalled, and one or two voices carried too much weight. Watching one student slide from trying → rejected → silent taught the teacher to act during the task, not after it is done! Because she used to think that the teacher should not intervene while students are working, but some cases require us to step in and change things up.

The teacher also changed her mind about several things. She used to worry that appointing a “group head” would silence others; this study showed her that when leadership is framed as facilitation, inviting, summarizing, and changing decisions, it actually opens space. The teacher used to fear that norms would kill creativity but realized that a few light norms like turn-taking, clear roles, and a short ‘because’ for every choice freed creativity, because ideas were finally heard and judged on reasons, not on volume. And she no longer reads silence as

“has nothing to say.” In this research, she noticed that silence often meant “needs a way in”; a routine and a concrete job were usually enough to unlock that voice. Finally, the teacher underestimated how persuasive quick visuals can be. A 30-second sketch, the culture corner, the iPad station with a lock, the green yard, changed minds faster than long talk and produced better language for persuasion!

This research also taught us that group work cannot go perfectly as planned! No matter how hard we try, some students will still take passive roles while others shine. Sometimes it is due to group dynamics, while other times it is related to abilities. The teacher just has to do her best and try to make things work and intervene when necessary.

If we ran this research again, we would keep the heart of the task but front-load the structure the teacher ended up inventing mid-stream. The primary researcher would give more time to explaining how the groups will work and come up with a better rationale behind dividing the groups. We could create role cards (facilitator, recorder, time-keeper, researcher) and state the simple rule of one-at-a-time talk. We would post a visible task board: Ideas → Select → Justify → Draft → Finalize, with short time boxes so pace is shared, not carried by the teacher alone. We would put sentence starters on the table (*We chose \_\_\_because \_\_\_. This solves \_\_\_ by \_\_\_.*) and add a quick “sketch before we decide” moment whenever a proposal is contested, because drawings moved the groups forward without argument. Before any final choice, the teacher would run a brief check-in, starting with the quietest voice, so participation does not depend on confidence alone. She would encourage stopping midway through to reflect on what happened and how we can fix things.

Most of all, we are leaving this project more convinced that purpose and light structure are the right recipe for our classrooms. PBL gave the students a reason to collaborate; the small routines made collaboration fair, efficient, and learnable. When the structure was visible, quiet students tried again, active students listened, and the room felt steady enough for everyone to be proud in the end of what they built.

## 7. Limitations

Since the participants were the primary researcher’s students, whose levels of English and characters she knows, no pre-test or post-test were conducted to check if their language improved or if their critical thinking advanced. She just noticed through their group work that they were showing critical thinking skills they had not shown before and were using the language in a way they never did in their normal classes. However, a researcher who is not familiar with their participants would find it more effective to run tests to check improvements. Also, in terms of generalizability, we would not claim these results could be broadly generalizable. As Stake (1995) describes, this research can be understood as an intrinsic case study, where the goal is to explore a particular teaching situation for its own sake rather than to generalize findings to other contexts. The value of the study lies in the insights it provides into one teacher’s classroom and the practical understandings that may inspire other educators facing similar challenges. That said, some patterns definitely feel transferable, for example, dividing clear roles, using turn-taking to keep talk fair, having to present an outcome, and handling disagreements either through brief teacher intervention or peer leadership that facilitates, not controls. Moreover, this research will interest teachers because the findings make group dynamics visible, identifying which routines fostered collaboration and which conditions led some students to the sidelines. The study shows why it matters to prepare simple

structures (who does what, in what order, by when) while leaving room for creativity and student responsibility. It also suggests that PBL can lift ordinary group work to the next level by giving a real purpose for collaboration and a natural reason to justify choices. In short, the context is specific, but the strategies are easy to adapt.

## **8. Recommendations**

It would be interesting for teachers to look closely at the points that made group work better: giving students a light structure, asking them to take turns when speaking, and dividing roles so everyone knows what to do. These small moves made a clear difference in the researcher's class, and they were easy to adapt. It would also be useful to explore how groups are formed. Should students choose their own teams, or should the teacher assign them? In our project, Group A were friends and worked smoothly, but that will not always be the case. Sometimes friends may stall more than they work or lean on each other unevenly and one ends up doing most of the work. Paying attention to these patterns can help teachers plan groups more intentionally. It would also be interesting to research a few related questions. For example: How do existing friendships shape participation, do they help or hide unequal effort? How do different learning styles inside one group support or challenge collaboration? What role can technology play in making group work richer and more organized? And what are the long-term effects? Does collaborative work, especially within PBL, strengthen students' thinking skills and their attitudes toward working with others over time? We could also check how different ages interact with the PBL method. Looking at these questions in real classrooms will give us practical answers teachers can use right away.

## **9. Conclusion**

To conclude, this study was a turning point for the primary researcher. It was the first time she paused to ask what really sits behind "group work" and how she could make it work better. When the primary researcher did this research, she was still a teacher in training. She wanted her students to do more of the talking and thinking, not just watch her talk throughout the lesson. But whenever she tried quick, mid-lesson group tasks with random group choices and no adequate roles for everyone, things got messy. Voices overlapped, a few students carried out the work, and they ended with weak outcomes, which made the teacher and her students frustrated. The teacher was not against group work; she was missing the pieces that make it function.

This project helped us see those missing pieces and gave her practical habits we can carry forward. The teacher learned that if she wants real collaboration, she should design it by setting a simple structure, making space for every student, and giving the task a purpose strong enough to pull them in. Going forward, the primary researcher will use group work more often, but also more purposefully, with clear guidelines, roles that include everyone, and steps that make progress visible. The teacher is confident her students will get more out of it because they will know how to begin, how to listen, and how to decide.

We also believe group work in Arab schools in Israel deserves more attention. Teachers in our context may recognize the same patterns the teacher struggled with: friends who work smoothly one day and unevenly the next, quiet students who disappear when talk gets loud, "quick" group tasks that do not add up to much. Her hope is that colleagues reading this will

find at least one concrete idea they can adapt to improve how groups are formed, how roles are shared, and how decisions are made. Finally, we see PBL as a natural way to raise the level of group work in our classrooms. It gives students a reason to collaborate and a product worth defending. With that purpose, and a few simple routines, group work can move from a side activity to a central part of learning.

1

## References

- Amara, M. (2014). Policy and teaching English to Palestinian students in Israel: An ecological perspective to language education policies. In D. Gorter, V. Zenotz, & J. Cenoz (Eds.), *Minority languages and multilingual education: Bridging the local and the global* (pp. 136–149). Springer. [https://doi.org/10.1007/978-94-007-7317-2\\_7](https://doi.org/10.1007/978-94-007-7317-2_7)
- Amara, M. (2017). The representation of cultural elements in English-language textbooks in Israel: Implications for Arab students. *Israel Studies in Language and Society*, 10(1), 101–128.
- Andargie, A., Amogne, D., & Tefera, E. (2025). Effects of project-based learning on EFL learners' writing performance. *PLOS ONE*, 20(1), e0317518. <https://doi.org/10.1371/journal.pone.0317518>
- Aslanides, C. D., Kalfa, V., Athanasiadou, S., Ganelos, Z., & Karapatsias, V. (2016, September). Advantages, disadvantages, and the viability of project-based learning integration in engineering studies curriculum: The Greek case. *Proceedings of the 44th SEFI Conference* (pp. 12–15). Tampere, Finland. <https://doi.org/10.5281/zenodo.17021001>
- Barrows, H. S. (1986). A taxonomy of problem-based learning methods. *Medical Education*, 20(6), 481–486. <https://doi.org/10.1111/j.1365-2923.1986.tb01386.x>
- Bell, S. (2010). Project-based learning for the 21st century: Skills for the future. *The Clearing House*, 83(2), 39–43. <https://doi.org/10.1080/00098650903505415>
- Bolsunovskaya, L. M., Phillips, C., Korotchenko, T. V., Matveenکو, I. A., Strelnikova, A. B., & Ulyanova, O. S. (2015). Project-based method in teaching foreign language for specific purposes. *Procedia – Social and Behavioral Sciences*, 215, 176–180. <https://doi.org/10.1016/j.sbspro.2015.11.615>
- Dewey, J. (1938/1976). *Experience and Education*. Collier Books, Macmillan Publishing Co. [https://dn720204.ca.archive.org/0/items/experienceeducat00dewe\\_0/experienceeducat00dewe\\_0.pdf](https://dn720204.ca.archive.org/0/items/experienceeducat00dewe_0/experienceeducat00dewe_0.pdf)
- Dillenbourg, P., Traum, D., & Schneider, D. (1996, September). Grounding in multi-modal task-oriented collaboration. In *Proceedings of the European Conference on AI in Education* (pp. 401–407). [https://doi.org/10.1207/s15327809jls1501\\_9](https://doi.org/10.1207/s15327809jls1501_9)
- Fragoulis, I. & Tsipalakides, I. (2009). Project-based learning in the teaching of English as a foreign language in Greek primary schools: From theory to practice. *English Language Teaching*, 2(3), 113–119. <https://doi.org/10.5539/elt.v2n3p113>
- Gibbes, M., & Carson, L. (2014). Project-based language learning: an activity theory analysis. *Innovation in language learning and teaching*, 8(2), 171–189. <https://doi.org/10.1080/17501229.2013.793689>
- Hmelo-Silver, C. E., Duncan, R. G., & Chinn, C. A. (2007). Scaffolding and achievement in problem-based and inquiry learning: A response to Kirschner, Sweller, and Clark (2006). *Educational Psychologist*, 42(2), 99–107. <https://doi.org/10.1080/00461520701263368>

- Johnson, D. W., & Johnson, R. T. (1987). *Learning together and alone: Cooperative, competitive, and individualistic learning* (5th ed.). Allyn & Bacon.  
<https://doi.org/10.4324/9781003106760-3>
- Karyawati, A., & Ashadi, A. (2018). Innovation in the classroom: Engaging English as a foreign-learning students using project-based learning. *LingTera*, 5(1), 61–67.  
<https://doi.org/10.21831/lt.v5i1.17067>
- Kavlu, A. (2017). Implementation of project-based learning (PBL) in EFL classrooms in Fezalar educational institutions (Iraq). *International Journal of Social Sciences & Educational Studies*, 4(2), 67–79. <https://doi.org/10.23918/ijsses.v4i2sip67>
- Ministry of Education. (2020). *English curriculum 2020: For junior high school (February 2020)*.  
[https://meyda.education.gov.il/files/Mazkirut\\_Pedagogit/English/CurriculumIntermedia2.pdf](https://meyda.education.gov.il/files/Mazkirut_Pedagogit/English/CurriculumIntermedia2.pdf)
- Nguyen, T. V. L. (2011). Project-based learning in teaching English as a foreign language. *VNU Journal of Foreign Studies*, 27(2).
- Pinner, R. S. (2013). Authenticity and CLIL: Examining authenticity from an international CLIL perspective. *International CLIL Research Journal*, 2(1), 44–57.  
<https://doi.org/10.4324/9780429032332-6-7>
- Saiegh-Haddad, E. (2003). Linguistic distance and initial reading acquisition: The case of Arabic diglossia. *Applied Psycholinguistics*, 24(3), 431–451.  
<https://doi.org/10.1017/s0142716403000225>
- Saiegh-Haddad, E., & Henkin-Roitfarb, R. (2014). The structure of Arabic language and orthography. In E. Saiegh-Haddad & R. M. Joshi (Eds.), *Handbook of Arabic Literacy* [Literacy Studies 9]. Springer Science+Business Media Dordrecht.  
[https://doi.org/10.1007/978-94-017-8545-7\\_1](https://doi.org/10.1007/978-94-017-8545-7_1)
- Smith, R., & Rebolledo, P. (2018). *A handbook for exploratory action research*. British Council. <https://www.teachingenglish.org.uk/publications/resource-books/handbook-exploratory-action-research>
- Stake, R. E. (1995). *The art of case study research*. Sage Publications.
- Thomas, J. W. (2000). *A review of research on project-based learning*. Autodesk Foundation.
- Tisdell, E. J., Merriam, S. B., & Stuckey-Peyrot, H. L. (2025). *Qualitative research: A guide to design and implementation*. John Wiley & Sons.
- Trilling, B., & Fadel, C. (2009). *21st century skills: Learning for life in our times*. John Wiley & Sons. <https://doi.org/10.5860/choice.47-5788>
- Tularam, G. A., & Machisella, P. (2018). Traditional vs non-traditional teaching and learning strategies: The case of e-learning! *International Journal for Mathematics Teaching and Learning*, 19(1), 129-158. <https://doi.org/10.4256/ijmtl.v19i1.21>
- Zhong, J., Ismail, L., & Lin, Y. (2025). Investigating EFL students' engagement in project-based speaking activities: From a multi-dimensional perspective. *Frontiers in Psychology*, 16, 1598513. <https://doi.org/10.3389/fpsyg.2025.1598513>

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## **Author Contributions**

The study was conceptualized and conducted by Duaa Abu-Naji as part of her undergraduate research course under the supervision of Dr. Nahla Nassar. Duaa designed the research instruments, collected and analyzed the data, and prepared the initial manuscript draft. Dr. Nassar supervised the study design, guided data analysis and interpretation, and substantially revised the manuscript for publication. Both authors contributed to refining the arguments, ensuring academic rigor, and approved the final version for submission.

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## **Appendices**

### **(Sample Design Guide Questions)**

#### **Appendix 1. Design Your Dream Classroom**

##### **Design your dream classroom!**

What would be your favorite color for the walls and furniture in your dream classroom? Why?

How would you arrange the desks and chairs in your dream classroom? Would you prefer groups or rows? Why?

What kinds of decorations or pictures would you hang on the walls of your dream classroom? What would they show?

If you could choose one special area in your dream classroom, what would it be? Would it be a reading corner, a drawing station, or something else?

What type of technology or electronic devices would you like to have in your dream classroom? How would they help you in your studies?

What would you like to have on your classroom desks to help you stay organized? Would it be pencil holders, folders, or something else?

What kind of seating options would you like to have in your dream classroom? Cushions, bean bags, or regular chairs? Why?

## **Appendix 2. Design Your Dream School Library**

### **Design your dream school library!**

What would you like to see in your dream school library? Books, computers, or both? Why? What technology would you like to have in your dream school library? Computers, tablets, or e-readers? Why?

How would you arrange the books on the shelves in your dream school library? Would you organize them by subject or in alphabetical order, by genre, author, or something else? Why?

How would you decorate the walls of your dream school library? Posters, artwork, or student projects? Why?

If you could choose one special area in your dream school library, what would it be? A quiet reading corner, a group discussion space, or a storytelling area? Why?

What colors would you use for the furniture and walls in your dream school library? Bright colors, neutral colors, or a mix? Why?

How would you make your dream school library a comfortable place to study? Soft lighting, cozy rugs, or quiet music? Why?

How would you organize the library resources in your dream school library? Labels, signs, or a catalog system? Why?

## **Appendix 3. Design Your Dream School Schoolyard**

### **Design your dream schoolyard!**

What kind of plants, or flowers would you like to see in your dream school yard? Why?

How would you like the playground equipment to be in your dream school yard? Swings, slides, or climbing structures? Why?

What kind of seating would you like to have in your dream school yard? Benches, picnic tables, or blankets on the grass? Why?

How would you like to decorate the walls or fences in your dream school yard? Artwork, murals, or colorful banners? Why?

What games or sports would you like to play in your dream school yard? Soccer, basketball, or tag? Why?

How would you make your dream school yard a fun place to relax? Music, outdoor games, or a designated quiet area? Why?

If you could choose one special feature for your dream school yard, what would it be? A small pond, a mini-garden, or a birdhouse? Why?