

Research Article

Examining the effect of a collaborative learning intervention on EFL students' English learning and social interaction

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Educators, including English Language Teaching practitioners, acknowledge the influence of collaborative learning on students' learning experiences, as demonstrated by numerous studies conducted in diverse contexts. This research, however, keeping instructional innovation, students' collaborative engagement, language learning and classroom dynamics especially in the context of an Arab university where such studies are limited, examines the effect of a collaborative learning intervention program on EFL students' English learning and social interactions in terms of teamwork, peer learning, and social intelligence. To achieve the study objective, the quasi-experimental design with two groups (experimental and control) was employed. The study was applied to a sample of prep-year university students who were randomly divided into two groups: control and experimental. While the experimental group studied English using collaborative learning skills, the control group studied following traditional ways of teaching. Both groups were assessed using a pre-and post-test (performance test) and an assessment card (social learning). In addition, teachers were interviewed about their views on how collaborative learning can strengthen EFL students' social learning success. The result revealed statistically significant differences between the scores of the control and experimental groups in favor of the later, indicating that the intervention program highly helped students improve their English learning skills and enrich their social interaction. Finally, the interview analysis highlighted the ways to enhance EFL students' language learning and social interaction through group projects, discussion groups and debates, role-playing and simulations, diverse collaborative learning practices, and effective teacher facilitation. The findings imply that collaborative learning could be a potential treatment to help EFL learners enrich their social learning experience and success. Further research on collaborative learning's extended impacts, teacher readiness, diverse assessment methods, and gender disparities are recommended to address the limitations of the current study.

Keywords: Collaborative learning; Prep year students; EFL context; English learning; Social interaction

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1. Introduction

Collaborative learning, also known as cooperative learning, engages students working together in a small group to ensure participation and learning to happen. It, being a social and interactive

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phenomenon, aims to improve students overall learning experiences through varied collaborative tasks including teamwork, peer learning, and social intelligence. According to Gerlach (1994), learning happens when learners involve themselves in social interaction. In addition, Kagan and Kagan (2017) assert that collaborative learning has great advantages for accomplishing a variety of specific educational objectives. Also, Gilbert (2021) asserts that collaborative learning strategies offer a natural environment that supports the enhancement of interactive skills. Similarly, Mende et al. (2021) listed two reasons learners should involve in collaborative learning activities. First, learners improve their greater insight of the subject matter and secondly, they enhance critical thinking and creativity. In the same vein, Ho (2021) maintains that collaborative learning environment allows students to benefit from each other. Correspondingly, Krangle and Ludvigsen (2008) affirm that learning is a result of social interaction and collaboration among the learners. Furthermore, Gokhale (1995) observes that learners' social interaction helps achieving a common task that propels them to obtain academic skills as well as develop group work abilities. Similarly, Students get the opportunity to learn from their peers when they are exposed to collaborative learning environment.

Woolfolk (1998) contends that students enhance their learning experience with their peers. Also, collaborative learning experiences help students use their social intelligence such respecting the opinions of others and building strong relationships with their peers. Alghamdy (2019) argues that collaborative learning enhances students' social responsibility in the form of sharing and respecting for others' viewpoints, as well as fosters positive relationships amongst their peers. Moreover, scholars support the use of collaborative learning strategies in the classroom, where students can complete tasks by partnering and learning from one another (Alalimi, 2020; Augustina, 2022; Deng et al., 2021; Lazakidou & Retalis, 2010; Sheth et al., 2020; Tolmie et al., 2010; Umar et al., 2020). Many researchers including English language teaching practitioners, to be precise, agree that collaborative learning environments enhance students' learning experiences, and describe collaborative learning as a partnership among stakeholders particularly students who learn from their peers, advancing interactive and social skills, abilities, and dynamic and active learning experiences (Er & Ataç, 2014; Huang et al., 2012; Riley & Anderson, 2006). To name a few, for example, Ehsan et al. (2019) argue that group and pair work have been effective in English classrooms. Furthermore, scholars maintain that collaborative strategies such as teamwork, peer learning, and social intelligence strengthen students English learning experience. For example, Spence (2022) claims that collaborative strategies in English classroom can notably improve students learning experience. These strategies, as a powerful teaching approach, can be utilized in a variety of pedagogical scenarios, such as project work, games, and team-work activities. In addition, Altun and Sabah (2020) highlights the importance of collaborative learning in English classroom, stressing the benefits such as enhanced communicative abilities, encouragement, feedback, and real-world interaction. Ha et al., (2022) emphasizes on using collaborative learning to decrease learners' foreign language fear and enhance their speaking competence. Rao (2019) stresses the importance of collaborative learning in English classes and explains how it assists students complete the assigned tasks.

As a result, it is critical to implement collaborative learning practices in the classroom since group projects help students build a community that fosters their academic and social development. Furthermore, the primary objective of this study is to fill the existing gap by investigating the various effects of collaborative learning in an Arab university context. While prior studies emphasize the benefits of collaborative learning in enhancing students' learning experiences, social competencies, and language acquisition, there is a noticeable absence of substantial empirical evidence exploring these dimensions within the specific setting of an Arab university. In response to this gap, the present study meticulously examines the impact of a collaborative learning intervention on EFL students' English learning and social interaction within the unique context of an Arab university, where previous research in this area is limited.

2. Theoretical Framework

The theoretical framework of this study aligns with both Berger and Luckman's (1966) social construction theory and Vygotsky's (1978) theory of social development. These theories underline the role that communication and interpersonal relationships have in the learning process, in addition to the knowledge and meaning that are constructed through social interactions. Scholars maintain that applying these theories in EFL classroom can improve students' learning experience. By description, collaborative learning is an environment in which students work together to solve problems and finish numerous assignments, not just by sharing knowledge but also by forming social and community partnerships. According to Roschelle (1992), knowledge is produced via problem-solving and understanding and has a social function. Also, Burr (2015) argues that learning is a process of cooperation and negotiation with regard to differing viewpoints. From the same point, Restivo (2022) asserts that students and their peers engage in a process of discussion, debate, clarification, and reconstruction in order to gather and organize information. The importance of collaborative learning is undeniable, and the available literature indicates that the study of collaborative learning began in the 1960s (Bruffee, 1984) and emerged as an area of research in the 1970s. During this period, many teachers and educators used small-group teaching strategies without being aware of or using the terms collaborative learning (Gamson, 1994). Collaborative learning has its origins in Vygotsky's (1978) social development theory and zone of proximal development, which emphasized the value of social contact and communication in learning. According to this theory, relationship among individuals fosters language development, and interaction and cooperation are key components of learning (Krange & Ludvigsen, 2008). The concept, while encouraging interaction, further emphasizes that the students should be guided by descriptions, presentations and prospects for cooperative learning' (Woolfolk, 1998). This study's theoretical framework coincides with collaborative learning and social development theory as well as the scholars who believe that cooperative learning improves language learning ability, motivation, responsibility, and respect for others' opinions. Numerous educators contend that students can get the social support they require while learning through collaborative learning. For example, Roseth et al. (2008) assert that cooperative group work enhances learning outcomes and performance. Furthermore, the concept of cooperative learning is described by Nasser (2019), as a collaborative effort between students and teachers in which teachers support the development of students' skills and competencies as a result of dynamic and active learning. It is important to highlight that students who have positive attitudes are more likely to collaborate with their peers and engage in collaborative learning; they are also more likely to be receptive to exchanging ideas and working toward a common objective. Recognizing the significance of developing EFL students' speaking skills, educators and researchers have turned their attention to innovative pedagogical approaches, with a particular focus on collaborative learning environments.

The theoretical framework of this study underscores the pivotal role of interpersonal connections, social interactions, and communication in the learning process. Emphasizing the significance of collaborative learning environments, these theories highlight their support for language acquisition, social interaction, and overall learning experiences. They assert that information and meaning are constructed through social involvement. In the integration of these theoretical frameworks into the current study, particular attention is given to the unique cultural and educational context of an Arab university, namely Najran University. The educational system in this study's context places frequent emphasis on interpersonal relationships, community involvement, and cooperative learning methods. Despite this emphasis, there is a notable gap in research within the setting of Najran University, even as literature elsewhere demonstrates the advantages of collaborative learning, especially in EFL contexts. Consequently, this research aims to bridge this gap by exploring the effects of collaborative learning interventions on EFL students' social interaction in a context where relevant research is limited. With a specific focus on Najran University, this study seeks to investigate how collaborative learning strategies can enhance English language competency and promote social interaction among EFL students. Additionally,

the study aims to provide insights into the efficacy of collaborative learning within the specific cultural and educational environment of Najran University, considering its unique qualities and challenges. By concentrating on this particular setting, the research aims to contribute valuable information to the existing body of knowledge. The alignment of the theoretical foundation with the practical exploration of how collaborative learning shapes EFL students' learning experiences and social interactions at Najran University is expected to enhance the relevance of the theoretical framework to the study's aims and objectives. This deliberate orientation aims to offer a comprehensive understanding of the dynamics and outcomes of collaborative learning in a specific cultural and educational context, ultimately contributing to the broader discourse on effective language learning strategies.

Many studies particularly in EFL context, are conducted while considering the importance of collaborative learning strategies. For example, Vega-Abarzúa et al., (2022) explored the effects of five-weeks of collaborative-instructions on EFL students' collaborative learning engagement. The study comprised 62 female and 70 male participants between the ages of 15 and 17. The data was collected using both quantitative and qualitative methods. Before and after the intervention, a test was conducted, and field notes were used to record unstructured observation throughout each lecture. The findings demonstrate a clear correlation between learners' involvement and collaborative learning, as seen by the four classes in which behavioral engagement predominated. In addition, Abuhabil and Aswese (2018) investigated how important it is for EFL learners to use collaborative learning as an approach to improve their English writing abilities. Twenty-five female students took part in the study. Every student who was selected at random was asked to complete the provided questionnaire. Despite some students' lack of interest in working in groups, the analysis showed that most students had positive opinions on collaborative writing. The finding further showed that collaborative learning is an appropriate and useful method for raising students' proficiency in English and fostering critical thinking. It also encourages students to share their knowledge, negotiate, and express their viewpoints while respecting those of others. Bhandari (2022) examined the usefulness of collaborative learning for strengthening students' proficiency in English classes. An experimental research approach served as the study's foundation. The instruments for gathering data were writing proficiency-related pre- and post-test items. According to the study findings, students in the experimental group improved their performance more than those in the control group, demonstrating the value of collaborative learning.

Latifa (2021) explored the effect of collaborative instruction on improving students' reading comprehension. The experimental and control groups were used in a quasi-experimental design. Both a questionnaire and a reading assessment were used to gather the data. The results of the study showed that students' reading comprehension increased when they used a collaborative learning technique. In the pre-test, the t-test result was 1.25, and in the post-test, it was 2.5. In comparison to the pre-test, the post-test results were more significant. Ha et al. (2022) investigated the impact of on collaborative learning to improve learners' L2 speaking performance and reduce their fear when speaking a foreign language. The findings indicated that learners' foreign language anxiety was somewhat reduced after five weeks of application, and they were able to speak more effectively because to a collaborative learning strategy. Additionally, it was shown that students had favorable attitudes and experiences with the new method of instruction. According to these results, collaborative learning may be a useful intervention for L2 learners to help them identify their anxiety and gain more self-assurance when speaking the target language. Umar et al. (2020) revealed whether accomplishment in learning English is correlated with cooperative learning. Forty-four responders, representing two classes, took part. While the control group was taught using regular lectures, the experimental group was taught utilizing cooperative learning methodologies. Two types of instruments were used in this study to collect both qualitative and quantitative data: a post-test with questions covering the four fundamental language abilities; and questionnaires and written interviews with the subject's teachers and pupils. The four language

skills were found to have significantly improved in the experimental group. According to this study, cooperative learning helps students learn English more successfully and fosters healthy relationships among them.

Contreras Leon and Castro (2017), from a social and dialogical perspective, investigated how incorporating collaborative learning affected interactions in an ESL classroom. Thirty students took part in the study using semi-structured interviews, field notes, questionnaires, and artifacts. The results revealed that collaborative learning as a social construct of knowledge can transform traditional teaching methods. Al Jawad (2023) investigated to determine whether employing the collaborative learning method in EFL classes can improve students' speaking abilities. Fifty students were selected through purposive sampling strategy and the quasi-experimental method was used to pursue the study. The findings suggested that collaborative learning was successful in enhancing students' speaking abilities. Similarly, Elsayed (2023) studied how well the Jigsaw technique improves reading comprehension in EFL students. The study included 20 students in the experimental group and another 20 in the control group. The findings demonstrated that there were noteworthy differences that favored the effectiveness of employing Jigsaw strategy instruction in improving EFL students' reading comprehension skills. Also, Alsehibany (2021) conducted a study to know how Saudi female students feel about peer feedback exercises in writing classes. The findings of the study suggested that students' attitudes towards peer feedback were favorable. Likewise, Namaziandost et al. (2020) led a study on Iranian EFL students to explore the impact of Jigsaw approach on reading comprehension. 50 pre-intermediate EFL students took part in 20 sessions for this study. Jigsaw approach was used to teach the experimental group and the control group received traditional instruction. Means analysis showed that the experimental group did better than the control group on a post-test of L2 reading comprehension. Besides, Chiu (2022) examined to know how far collaboration helps students identify grammatical mistakes, rate the severity of the errors, and correct these errors through completion task. Thirty-two students of English major juniors and seniors participated in the study. The output displayed that collaborative work produced higher scores than done by individual.

Additionally, Odehova et al. (2022) experimented to know, in order to improve grammar knowledge with collaboration, which technique is more effective: pair work or group work. The researchers used qualitative and quantitative methods to complete the study; and pre-test, input, and post-test were used as tools. The results displayed positive effects of both modes on promoting grammar ability among the students and no significant difference between the two modes were observed. Similarly, Elizalde-Rivera and Criollo-Vargas (2020) intended to develop grammatical competence among a group of students by implementing collaborative learning techniques in the English classroom. Scientific, descriptive, statistical and analytical-synthetic methods were used in the study whereas observation sheets, field notes, tests, and questionnaires were used as tools. The research evidenced a satisfactory development in students' grammatical knowledge and enhanced their teamwork efficiency. Furthermore, Rad and Sahragard (2019) conducted a study to explore the effectiveness of participatory approach on EFL learners' grammar and vocabulary and wanted to know the teachers' opinion in this regard. The researcher selected 60 EFL learners for the study dividing in two groups—one group received the input through conventional method of teaching and the experimental group was taught through role-play, problem solving activities, group work, and collaborative task. Language proficiency test was used as tool of the study. The result did not show any significant difference between both groups on language proficiency test; however, the students' knowledge in grammar and vocabulary was increased. Additionally, Yavuz and Arslan's (2018) study examines how well cooperative learning improves language proficiency in an English course. The study included 66 students employing a quasi-experimental design. The data was gathered using an achievement test that evaluated students' listening, reading comprehension, grammar, and vocabulary skills. The findings

demonstrated that cooperative learning improved vocabulary, grammar, listening, and reading skills more than the traditional approach.

Moreover, despite empirical evidence supporting the effectiveness of collaborative learning in the EFL context, there is still relatively little investigations that examine the effect of collaborative learning intervention program on EFL students English learning and social interaction particularly Najran University context. Such an investigation is significant in the Arab context considering the potential treatment to help EFL learners enrich their learning experience and success. Hence, it is hoped that this research will contribute to an encouraging learning experience through answering the following research questions:

RQ 1) What is the effect of a collaborative learning intervention program on EFL students' English learning performance and social interaction?

RQ 2) What are the better ways through which collaborative learning can enhance EFL students' language learning and social interaction?

3. Methodology

The study investigated the impact of a training program on the collaborative learning behavior of EFL students' teamwork, peer learning, and social intelligence at a university. To achieve the study objective, the quasi-experimental design with two groups (experimental and control) was employed.

3.1. Population and Sample of the Study

The study was applied to students at the preparatory year in Najran University in the Kingdom of Saudi Arabia in the second semester for the academic session 2022-2023. The study sample was drawn from the general English students who totaled 190. A purposive sampling method was used to select the study sample. Two sections (no=60) were chosen to participate in the study. Then, the students in the two sections were redistributed randomly and equally into the control group and experimental group. The students, all Saudis, are aspirants of professional degrees like medical, engineering, and computer science. Their age group ranges from 16 to 22 years. They join the university after graduating from higher secondary schools and meeting the requirements for admission to Najran University. The study also administered a semi structured interview with teachers (N=20) who are faculty members at the Deanship of Preparatory Year and come from different nationalities including Jordan, India, Egypt, Sudan, Pakistan, Saudi Arabia, United States of America, and Yemen. They have different degrees in English, including MAs and PhDs in various applied linguistics domains. In addition, they have rich experiences and have been teaching English in ESL/EFL settings for more than ten years.

The study sample, drawn from general English students at Najran University during the second semester of the academic session 2022-2023, appears to be specifically targeted and purposively chosen. The use of purposive sampling, while deliberate and tailored to the research objectives, may raise questions about the representativeness of the sample. The selection of two sections totaling 60 students from a larger pool of 190 general English students indicates a focused approach. However, the random and equal redistribution of students into control and experimental groups contributes to the internal validity of the study by minimizing potential biases. The demographic information provided offers insights into the characteristics of the study sample. All students are Saudis, aspiring to pursue professional degrees in fields such as medical, engineering, and computer science. Their age group ranging from 16 to 22 years suggests a relatively homogeneous group in terms of age. However, the fact that they are all Saudis and share common aspirations for professional degrees might limit the generalizability of the findings to a broader and more diverse student population. It is noteworthy that the students enter the university after graduating from higher secondary schools, meeting the admission requirements for Najran University. This information provides context about the academic background of the sample, but it also highlights a potential limitation in terms of representativeness, as the study may

not capture the perspectives of students with different educational backgrounds. In conclusion, while the purposive sampling and subsequent random redistribution enhance the study's internal validity, the representativeness of the sample may be limited by the specific criteria used for selection. The homogeneity in nationality, career aspirations, and age group, along with the common academic pathway of entering the university after high school, should be considered when generalizing the findings to a broader population.

3.2. Ethical Approval and Informed Consent

The study's ethical approval reference number is 010493-023026-DS. Before obtaining the participants' agreement, they were informed about the entire research process. They were asked if they would voluntarily take part in the study. Additionally, they had the chance to ask queries about the research. They were also informed that taking part in the research would not provide them with any direct or indirect benefits. They received assurances that all information submitted for the study would be treated with the utmost confidentiality and would not be utilized for anything other than research. Additionally, they were requested to get in touch with any of the researchers engaged in the study for more information and clarification.

3.3. Tools of the Study

The researchers applied three tools to collect data to answer the research questions: a performance test, an assessment card, and a semi-structured interview. The intervention program aimed to engage EFL students in collaborative learning tasks, focusing on social intelligence, peer learning, and teamwork. The program's implementation occurred in three distinct phases, allowing for the systematic introduction and progressive growth of collaborative learning components. In the initial phase, teachers underwent orientation to ensure a clear understanding and proper utilization of collaborative learning methodologies, ensuring consistency in intervention delivery. The program featured a diverse range of collaborative tasks and activities tailored to different language proficiency levels, fostering participant engagement and skill development.

To prevent inconsistencies, the researchers implemented a mechanism addressing issues such as teachers' adherence to prescribed collaborative tasks, variations in instructional approaches, disparities in observing students' participation levels across different collaborative tasks, and the reliability of data recording. Ongoing monitoring and periodic reviews throughout the intervention period ensured adherence to the plan and consistency in implementing collaborative tasks.

Furthermore, the teacher responsible for the intervention received regular guidance and assistance. This support aimed to address any inconsistencies in instructions, reinforcing consistency in task performance and improving the impartiality and uniformity of the observation procedure. The multifaceted approach taken in designing, monitoring, and supporting the intervention underscores the researchers' commitment to maintaining the integrity and effectiveness of the collaborative learning program.

The study utilized a test adopted from the preparatory year examinations bank, created by assessment and evaluation professionals. The test aimed to assess students' competence in vocabulary, grammar, and all four language skills. Prior to adoption, validity and reliability tests were conducted. Collaborative learning activities on the exam included teamwork-focused elements such as group discussions, presentations, and other problem-solving exercises. The exam aimed to assess both individual contributions and overall performance in social intelligence, peer learning, and teamwork.

The collaborative tasks required active participation in group discussions and cooperative completion of assignments. An assessment card was developed to observe students' social interaction during teamwork assignments. Peer learning emphasized respect between peers, active participation, effective communication, and cooperation. The assessment card aimed to optimize EFL students' learning experiences, assessing their abilities to collaborate effectively in diverse group settings and capturing their social interaction during collaborative assignments.

Observations during activities and assignments that emphasized social skills aimed to provide insights into students' behavior while working on both their own and their peers' collaborative assignments. Teacher interviews were conducted to obtain qualitative information about student behavior and interactions during collaborative learning. Teachers' perspectives were considered essential for comprehending student behavior, social interactions, and the impact of collaborative learning on language and social skills in real-time.

Although student engagement in collaborative learning effects would provide valuable insights, teachers were chosen for interviews due to their roles as observers and facilitators, providing a comprehensive understanding of students' development and interactions. Teacher interviews aimed to offer a more thorough understanding of the broader implications of collaborative learning on language skills and social interaction, crucial for a quasi-experimental study focusing on the effects of collaborative learning intervention on EFL students' English learning and social interaction.

The rationale for the relationship between pre-and post-tests, collaborative learning exercises, and performance tests lies in their intended progression. Pre-and post-tests served as benchmarks to assess students' existing proficiency before and after the collaborative learning intervention, measuring improvement or advancement. Collaborative learning assignments were designed to enhance the collaborative learning intervention's goals, promoting social interaction and language acquisition. The performance test comprehensively assessed overall language proficiency, structured to require language competency, critical thinking, and communication tasks in pairs and groups. The connection lies in the progression, where collaborative tasks aim to enhance specific language skills and social interactions, while pre/post-tests and performance tests assess these skills at different stages - before and after the intervention. Aligning collaborative assignments with performance test competencies and domains ensures students are adequately prepared to meet study objectives, linking the development and assessment phases. The researchers acknowledge that enhancing the alignment of these elements could strengthen the appropriateness of assessment tools within the intervention program, acknowledging this as a study limitation.

3.3.1. Performance test

The performance test consisted of six parts. The first part of the test was to assess students listening skills. It consisted of five items (2.5 points) in a multiple-choice format where the students had to choose the correct answer from the given alternatives based on the listening tracks for each item. The second part of the test was to evaluate students' grammar knowledge in terms of parts of speech, subject-verb agreement, sentence types, and capitalization and punctuation. It consisted of five items (2.5 points) in a multiple-choice format where students had to choose the correct answer from the given alternatives. The third part of the test was to test students reading comprehension level. It consisted of one text, five-items (2.5 points). The text followed five questions in a multiple-choice format where students had to choose the correct option after reading the given text. The fourth part of the test was to assess students basic writing skills. It consisted of two questions, ten items (5 points). Each question needed students to complete and write sentences as per the given prompts. The fifth part of the test was to assess students vocabulary knowledge. It consisted of five items (2.5 points) in a multiple-choice format where students had to choose the correct vocabulary word from the given choices. The sixth part of the test was to assess students speaking skills. It consisted of two questions, four topics (5 points) in each question. Students were required to speak on two topics from a list of given prompts related to everyday communication contexts. The test was employed as pre and post-test with the control and experimental groups to examine the effect of a collaborative learning intervention program on EFL students' English learning experience with special reference to teamwork, peer learning, and social intelligence. The time and score allocated for the test was 60 minutes and 20 points respectively. The participants' general English proficiency was measured by the pre-test distributed to both conditions (control and experimental)

before the intervention program. The same test was reused at the end of the program as a post-test to evaluate the participants' performance to examine the effect of both the traditional ways of teaching and the collaborative learning mediated approach. Two teachers who did not participate in this study evaluated the participants' performance to give more reliability to the obtained results. The teaching material for both control and experimental groups was from the same textbook Robert et al. (2017). The instructors of the control and experimental groups taught the same content over a period of four weeks.

3.3.2 Assessment card

The assessment card designed for observing students' behavior in collaborative learning environments encompasses three crucial domains: Teamwork, Peer Learning, and Social Intelligence. Under the Teamwork domain, students are evaluated on their enjoyment of group work and their ability to cooperate with peers. In the Peer Learning domain, the assessment focuses on the student's active listening skills and their openness to considering diverse perspectives. The Social Intelligence domain assesses how well students perform their assigned roles and their willingness to engage in questioning their classmates. By delineating specific components within each domain, the assessment card provides a comprehensive framework for gauging and enhancing students' collaborative skills, fostering an environment conducive to effective teamwork and mutual learning.

Each component was evaluated on a scale ranging from Never (1) to Always (5). The instructor, responsible for the experimental group, conducted observations both before and after the intervention program. The observations focused on recording students' behaviors related to teamwork, peer learning, and social intelligence, providing a comprehensive view of their collaborative skills. The scale allowed for nuanced assessments, enabling the instructor to discover any changes in students' collaborative behavior over time.

By employing this assessment card, the researchers aimed to analyze the impact of collaborative learning on students' collaborative skills. The data collected before and after the intervention facilitated a comparative analysis, helping to identify improvements in the concerned domains. The clear and structured nature of the card, along with the specific domains and components, enhanced the accuracy and reliability of the observations, contributing to a more insightful and nuanced interpretation of the intervention's effects on students' collaborative behaviors.

3.3.3. Semi-structured interview

The semi-structured interviews were a crucial component of the current study, aiming to record teachers' perspectives on the ways for enhancing EFL students' learning success through collaborative learning. These interviews were conducted by a researcher not involved in the intervention program, ensuring an unbiased and objective exploration of teachers' insights. Each interview, estimated to last between 10 to 15 minutes, took place in one of the offices in the prep year building and was audio recorded.

The main research question guiding the interviews was: "What are the better ways through which collaborative learning can enhance EFL students' language learning and social interaction? Accordingly, the researchers presented the following interview questions and prompts before the participants. Prompts were in terms of Teamwork, Peer Learning, Social Intelligence:

1. How do students behave during collaborative learning instructions?

The theme/prompt "Teamwork" was to explore teachers' observations and opinions on how students engage in teamwork. It assisted researchers to look for patterns of cooperation, communication, and mutual support among students. In addition, the theme/prompt "Peer Learning" helped to investigate how students interact with their peers in terms of listening and considering different perspectives. It helped in exploring into the dynamics of knowledge exchange and collaborative problem-solving. Furthermore, the theme/prompt "Social Intelligence" intended to understand teachers' views on students' ability to perform assigned roles and their comfort level in asking questions to classmates. In addition, it aimed at exploring the

social dynamics and emotional intelligence displayed during collaborative activities. The prompts were in terms of group projects, discussion and debates, role-playing and simulations, diverse collaborative learning practices, effective teacher facilitation:

2. *What are the ways through which collaborative learning can strengthen learning success?*

The theme/prompt “Group projects” assisted researchers to inquire about teachers' perspectives on the effectiveness of group projects in fostering collaborative learning and enhancing language skills. Also, the theme/prompt “Discussion and debates” intended to explore how discussions and debates contribute to language development and social interaction within collaborative learning environment. Besides, the theme/prompt “Role-playing and simulations” aimed at understanding the impact of role-playing and simulations on language learning and the development of social skills and interactions. As well, the theme/prompt “Diverse collaborative learning practices” was to seek teachers' insights into various collaborative methods and their effectiveness in catering to students' diverse learning styles. Similarly, the theme/prompt “Effective teacher facilitation” intended to examine the role of teachers in facilitating collaborative learning, including strategies employed to guide and support students effectively.

Moreover, by researching into these specific aspects, the semi-structured interviews aimed to extract nuanced and detailed information, providing a rich understanding of teachers' perceptions and experiences related to collaborative learning and its impact on EFL students' success in language learning and social interaction.

3.4. Intervention Program

An intervention program, in three phases, was designed and implemented to engage EFL students in collaborative learning tasks with special attention to teamwork, peer learning, and social intelligence. The intervention was applied to prep year students in the second semester 2022-2023 for a period of four weeks.

Phase one: The program, before its implementation, was introduced to a teacher who volunteered to carry out the intervention with the experimental group. The teacher was oriented for one week by the researchers in the form of in-person five sessions. Each session lasted for one hour. The first session was devoted to an introduction to collaborative learning concept, history and theories behind this approach. The second session included a talk and discussion on different collaborative tasks in general and teamwork, peer learning, and social intelligence in particular. The third session was held to describe teamwork tasks in detail and the activities associated with it under collaborative learning. The fourth session witnessed a discussion and deliberation on peer learning and the activities associated with peer learning on which collaborative learning approach put a great focus on. The fifth session was convened with a deliberation on social intelligence and the activities and tasks associated with it on which collaborative learning put a great focus on.

Phase two: The researchers, through a teacher who volunteered to carry out the intervention with the experimental group but did not participate in the semi-structured interview, implemented this program, keeping a variety of reasons in mind. First, the researchers intended to examine EFL students' behavior during collaborative learning mediated instructions with special reference to teamwork, peer learning, and social intelligence compared to the traditional way of teaching. Another inspiration was to explore the ways through which collaborative learning can strengthen EFL students' learning success. Based on the great characteristics of collaborative learning and in agreement with the scholars, as mentioned in the literature review, the program was implemented which lasted for four weeks.

In the first week, the instructor from prep year, while delivering general English instructions, engaged the experimental group in general collaborative tasks and activities. Since general English is a blend of teaching all four skills altogether including grammar and vocabulary, the instructor had an opportunity to involve students in activities such as group discussion and debate (speaking), pair work and peer editing (writing and grammar), jigsaw (reading and listening), quizzes and games (vocabulary). In the second week, the instructor engaged students in specific

collaborative tasks and activities devoted to teamwork, i.e., role play where they acted out real life contexts like ordering food at a restaurant, making travel preparations, or resolving differences. In addition, students were also engaged in some other activities such as group projects, round-robin writing, role playing games, info gap tasks etc. In the third week, the instructor involved students in other specific collaborative tasks and activities committed to peer learning, i.e., peer tutoring where students were paired with those who needed extra assistance and support in language acquisition. This helped poor performers develop vocabulary, grammar knowledge, and speaking and listening skills with their peers. Additionally, students were also engaged in activities like language exchange, peer feedback, think-pair-share, peer-led debates and discussions. In the fourth week, students were offered with opportunities to get engaged in activities related to social intelligence, i.e., group talk on social and cultural themes. Students were asked to talk about cultural and social norms. These assisted students enhance their knowledge of different cultures while boosting their language competence. Furthermore, students were involved in actions like role-playing scenario, group presentations, and storytelling circles.

Phase three: Students were observed assessed using an assessment card. The teachers who volunteered to carry out the intervention observed students behavior in terms of teamwork, peer learning, and social intelligence. Students engagement was evaluated using a scale of Never 1, Rarely 2, Sometimes 3, Often 4, Always 5. Numerous collaborative tasks such as brainstorming sessions, team-building exercises, group projects, peer editing, problem-solving sessions, simulation exercises, group presentations, peer teaching sessions, discussions, jigsaw techniques, role-playing exercises, decision-making activities, community service projects, cross-cultural exchanges, social intelligence reflections, and storytelling circles were utilized. Accordingly, each student's engagement was recorded on the card as per his involvement in the assigned collaborative tasks. After the observation, the researchers entered the data on an excel sheet for the statistical processing.

The intervention program was designed to actively involve EFL students in collaborative learning tasks, emphasizing social intelligence, peer learning, and teamwork. The program unfolded in three distinct phases, strategically introducing and progressively expanding collaborative learning components. In the initial phase, teachers underwent orientation to ensure their understanding and proper utilization of collaborative learning methodologies, aiming for consistency in the intervention's delivery. The intervention featured a diverse range of collaborative tasks and activities tailored to different language proficiency levels, promoting participant engagement and skill development. To safeguard against potential inconsistencies, the researchers implemented a mechanism. This mechanism addressed issues such as teachers' adherence to prescribed collaborative tasks, variations in instructional approaches, disparities in observing students' participation levels across different collaborative tasks, and the reliability of data recording. To maintain rigor, the researchers conducted ongoing monitoring and periodic reviews throughout the intervention period. This process ensured adherence to the intervention plan and consistency in implementing collaborative tasks. Furthermore, the teacher responsible for the intervention received regular guidance and assistance. This support aimed to address any inconsistencies in instructions, reinforcing consistency in task performance. It also aimed to enhance the impartiality and uniformity of the observation procedure. The multifaceted approach taken in designing, monitoring, and supporting the intervention underscores the researchers' commitment to maintaining the integrity and effectiveness of the collaborative learning program.

3.5. Validity and Reliability

3.5.1. Performance test

A midterm test from the prep year exams bank was adopted by the researchers. Since the exam was created by a group of experts in assessment and evaluation, it is deemed valid and reliable. The test, in the opinion of the researchers, accurately represents English language competency and covers a wide range of themes, abilities, and difficulty levels. It is in line with the language

learning objectives and prep year English curriculum. Furthermore, the exam is a useful tool for assessing language proficiency in speaking, listening, reading, writing, grammar, and vocabulary. The criterion-related validity of this test has been confirmed by comparing the test results with those of other recognized tests of English proficiency. Furthermore, the consistency, which indicates that all items are measuring the same construct, of the test items within the test has already been assessed through administering the same test to the same group of individuals at different times. Most significantly, before implementation, the test was a subject of rigorous pilot testing and the identified issues of questions, instructions, or format were improved.

3.5.2. Assessment card

The researchers presented the test and assessment card to a number of specialized experts (9) in English language assessment to express their opinions on the validity of the test and card to measure what was intended to be measured in terms of the clarity and appropriateness and the integrity of the language. Based on the experts' reviews, the issues related to wordiness, syntax, and context were addressed. Also, the instruments were applied to a survey sample consisting of (20) students, and the Pearson correlation coefficient was used to measure the relationship between the score of each (domain) and the total score of the assessment card. Table 1 shows the results.

Table 1

Internal consistency (validity)

No.	Item-domain	Pearson correlation coefficient	Sig.
	Domain one: teamwork	1	.884**
1	The student enjoys working in a group.	.828**	.811**
2	The student co-operates with peers.	.764**	.707**
	Domain two: peer-to-peer learning	1	.920**
3	The student listens to his classmates.	.830**	.802**
4	The student considers different perspectives.	.839**	.838**
	Domain three: social intelligence	1	.913**
5	The student performs role assigned to him.	.836**	.774**
6	The student hesitates asking questions to his classmates.	.747**	.742**

It is evident from Table 1 that the values of Pearson correlation coefficients between the item score with the total score of the domain belonging to it were statistically significant at the significance level (0.01). Correlation coefficients ranged from (0.747** -- 0.839**). The correlation coefficients between the domains with the total score of the assessment card ranged between (0.884** -- 0.920**). These findings affirm the assessment card's validity, indicating a robust and reliable measure of the evaluated domains. Also, the test and card's reliabilities were calculated through Cronbach alpha, the split-half and Richardson's 20 coder methods as presented in Table 2.

Table 2

Correlation coefficients

Tool	Cronbach alpha	Split-half	Richardson's 20 coder
Assessment card	0.88	-	-
Performance test		0.84	0.85

According to Table 2 shows, the results from the assessment of two tools, the "Assessment Card" and the "Performance Test," provide valuable insights into their reliability in measuring collaborative learning behavior. The Assessment Card exhibits robust internal consistency, as indicated by a high Cronbach's alpha of 0.88, implying that the specific components within the domains of Teamwork, Peer Learning, and Social Intelligence consistently measure the intended constructs. Additionally, the split-halves reliability, though not explicitly provided, aligns with the

overall high internal consistency. On the other hand, the Performance Test also demonstrates commendable internal consistency with split-half reliability values of 0.85 and 0.84. The strong split-half reliability suggests a reliable measure of collaborative learning aspects. In summary, both tools exhibit sound internal consistency, with the Assessment Card slightly surpassing the Performance Test in this aspect, making them effective instruments for evaluating and enhancing students' collaborative learning behaviors.

3.6. Data Analysis

The statistical software SPSS (version 23) was adopted in analyzing the results of the study and answering its questions. The Pearson correlation coefficient was used to verify the validity of the consistency of the test. Also, Cronbach alpha, the split-half and Richardson's 20 coder methods were used to check the reliability of the performance test and assessment card. In addition, the t-test was applied to independent samples to show the significance of the differences between the means of the study sample's responses to the tool for the control and experimental groups. Furthermore, the effect size was extracted by Eta-squared. Finally, the data from the semi-structured interview was analyzed using Braun and Clarke's (2006) model for analyzing qualitative data. The data was sorted, read, analyzed, and reported.

Despite employing Braun and Clarke's (2006) methodology for qualitative data analysis in this study, it is crucial to acknowledge and address potential biases that may have influenced the analysis. The personal perspectives and biases of the researchers could inadvertently shape the interpretation of the data, leading to concerns about researcher bias. Maintaining objectivity and self-awareness throughout the investigation is essential to mitigate this issue. Selective coding introduces another potential bias, where the researchers' preferences may impact the emphasis placed on specific codes or themes. Additionally, there is a risk of confirmation bias, potentially leading researchers to interpret data in a way that aligns with their preexisting theories. In cases involving multiple researchers, ensuring inter-coder reliability becomes crucial to address variations in interpretation. Overlooking minor motifs and succumbing to cultural and contextual bias are additional challenges that could compromise the accuracy and thoroughness of the analysis. To enhance the credibility and trustworthiness of the findings, researchers should practice reflexivity, engage multiple coders for reliability checks, and transparently communicate the analytical process, acknowledging and rectifying any biases and limitations. Seeking input from both participants and peers can further contribute to improving the overall rigor of the qualitative data analysis.

4. Results

4.1. Homogeneity

The control and experimental groups sat for the pre-test and the assessment card before the intervention to check that the two groups are homogenous. Table 3 reveals that there were no statistically significant differences, at the .05 significance level, between the scores of the control and experimental groups on the pre-test. This result suggests that the two groups exhibited homogeneity, indicating comparable standard characteristics.

Table 3

T-test of the pre-test (performance test & assessment card)

Tool	N	Mean	SD	t	df	Sig. (2-tailed)
Performance test						
Control	30	7.90	1.318	-.318	58	.706
Experimental	30	8.13	1.476			
Assessment card						
Control	30	6.27	1.484	-.240	58	.811
Experimental	30	6.37	1.732			

4.2. The Effectiveness of the Collaborative Learning Intervention Program

The effect of the collaborative learning intervention program on EFL students was calculated. Table 4 and 5 present the results.

Table 4

T-test results of the post-test (performance test)

Group	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)	Eta-Squared
Control	30	12.90	4.310	-2.102	58	.040	.071
Experimental	30	15.25	4.349				

Table 4 shows that there were statistically significant differences at the significance level of (.05) for the scores of the experimental and control groups in favor of the experimental group. The t-value on the total score was (2.102), with a significance level of (.040). The effect size was (0.071), with a medium effect level. These results underscore the meaningful impact of the intervention, with the experimental group outperforming the control group.

Table 5 shows the results of the post-test of the assessment card which measured the effect of intervention program on EFL students' English learning experience in terms of teamwork, peer learning, and social intelligence.

Table 5

T-test results of the post-test (assessment card)

Domain	N	Mean	SD	t	df	Sig. (2-tailed)	Eta Squared	Effect size
Teamwork								
Control	30	2.73	1.230	-2.554	58	.013	.101	Medium
Experimental	30	3.97	2.341					
Peer-to-peer learning								
Control	30	3.20	1.518	-3.209	58	.002	.151	High
Experimental	30	4.73	2.132					
Social intelligence								
Control	30	3.80	1.448	-3.745	58	.000	.195	High
Experimental	30	5.13	1.306					
Total degree								
Control	30	9.73	3.095	-4.177	58	.000	.231	High
Experimental	30	13.83	4.395					

Table 5 shows that there were statistically significant differences at the level (.05) between the scores of the control and experimental groups on the post-test on all domains and the total score. The results indicate that the experimental conditions have had a positive and statistically significant impact on Teamwork, Peer-to-peer learning, Social Intelligence, and the overall total degree of collaborative learning, as evidenced by higher means and significant effect sizes in the experimental group compared to the control group. The effect sizes suggest that the improvements are not only statistically significant but also of practical importance.

4.3. The Better Ways through which Collaborative Learning can Strengthen EFL Students' Learning Success

Teachers' interview responses regarding the better ways through which collaborative learning can strengthen EFL students' learning success were qualitatively analyzed. According to the content analysis, the ways include but are not limited to group projects, discussion and debates, role-playing and simulations, diverse collaborative learning practices, and effective teacher facilitation. Some of the quotations and their interpretations are presented in the following.

4.3.1. Group projects

The theme of group projects centers around language-related group projects and collaborative activities aimed at achieving common objectives in educational settings. These initiatives focus on fostering active participation, strengthening knowledge, and cultivating a positive learning atmosphere among students. The theme emphasizes the value of students tutoring each other, contributing to mutual learning and skill enhancement. Additionally, the creation of student groups, particularly in writing and speaking classes, is highlighted as an effective strategy to improve language skills through group writing, peer editing tasks, and the exchange of ideas. Overall, group projects underscores the significance of collaborative approaches in language education to enhance both individual and collective learning experiences. The following excerpts are evident of the use of group project to enhance collaborative learning:

T1: "Language-related group projects or activities for collaboration and achieving common objectives."

T6: "Students tutoring each other, promoting active participation, strengthening knowledge, and fostering a positive learning atmosphere."

T8: "Creating student groups, especially in writing and speaking classes, to improve skills through group writing, peer editing tasks, and idea exchange."

T10: "The teacher can ask students to work in a graded group project"

4.3.2. Discussion and debate

The theme of discussion and debate focuses on fostering language skills through discussions and debates, providing students with opportunities to express their ideas and perspectives. The theme encourages active participation and language practice in these dynamic settings. Additionally, it highlights the use of group projects or puzzles as instructional tools to enhance communication, language abilities, teamwork, and critical thinking. By incorporating these elements into the learning environment, discussion and debate aims to create engaging and interactive opportunities for students to develop their language proficiency while honing essential skills such as collaboration and critical analysis. The following answers show some of how discussion and debate could enhance collaborative learning:

T2: "Encouraging students to participate and practice language through discussions and debates, allowing expression of ideas and perspectives."

T3: "Assigning group projects or puzzles to foster communication, improve language abilities, and boost teamwork and critical thinking."

T11: "Talking and debating with others is a great way to make learning together more interesting. It helps everyone join in, talk well, think carefully, and work as a team. When we talk, we share different ideas, making it easier to understand the topic better. So, chatting and discussing things helps us learn better as a group."

4.3.3. Role-playing

This theme centers around the use of role-playing exercises as a pedagogical approach to engage students in English language learning. The theme emphasizes the recreation of real-life scenarios, providing a practical and immersive environment for students to enhance their speaking and listening abilities. By incorporating role-playing activities into the curriculum, educators aim to create dynamic learning experiences that go beyond traditional teaching methods, offering students a unique opportunity to apply language skills in simulated, contextually relevant situations. This theme underscores the effectiveness of experiential learning through role-playing exercises for developing practical language proficiency. The following excerpts show some of how role-playing can improve collaborative learning:

T5: "I can use role-play can serves as a flexible and valuable instrument in collaborative learning as it provides active involvement and enhanced communication."

T11: "Recreating real-life scenarios through role-playing exercises to engage students in English and improve speaking and listening abilities."

T13: "My English classes have seen an enormous change in the form of role-playing activities. The role-playing gives students a real-world scenario where they can put their language skills to use in a way that is not possible with textbooks. It helps student ready to communicate outside of the classroom."

4.3.4. *Diverse learning practices*

Theme 4 revolves around the implementation of diverse collaborative learning practices to foster a social intelligence environment. This theme encourages educators to utilize various methods such as think-pair-share, jigsaw exercises, and reciprocal teaching. These practices aim to enhance students' social intelligence by promoting interaction, cooperation, and shared responsibility in the learning process. By incorporating a range of collaborative techniques, Diverse collaborative learning practices underscores the importance of cultivating diverse skills and creating an inclusive atmosphere that supports holistic development, where students not only gain subject knowledge but also refine their social and interpersonal abilities through different collaborative learning strategies. The following excerpts show some of diverse learning practices can enhance collaborative learning:

T6: "It has been incredibly transformative for me to utilize different collaborative learning techniques. These strategies not only improve students' comprehension of the material but also foster a vibrant environment of social intelligence."

T7: "Using various teamwork techniques like think-pair-share fosters a social intelligence-rich learning atmosphere."

T13: "Utilizing distinct collaborative learning methods and practices, such as jigsaw exercises and reciprocal teaching."

4.3.5. *Teacher facilitation*

Theme 5 underscores the significance of effective teacher facilitation in ensuring successful collaborative learning experiences. This theme emphasizes that teachers play a crucial role in guiding and supporting students during collaborative activities. While encouraging students to take charge of their learning, teachers are expected to facilitate conversations, respond to questions, and provide assistance as needed. The focus is on a balanced approach where educators empower students to actively participate in their learning process while offering the necessary guidance and support to make the collaborative experience fruitful. The provided excerpts highlight how incorporating a variety of learning practices can contribute to the enrichment of collaborative learning:

T14: "I believe that successful collaborative learning is built on the foundation of effective teacher facilitation. I, as a facilitator, am to provide an environment where students can benefit from one another's knowledge through leading discussions, answering questions, and making sure that each group project is an educational opportunity."

T17: "Teachers play a key role in making group learning successful. They guide discussions, help with questions, and support students' independent learning."

T16: "Emphasizing effective teacher facilitation as essential for guaranteeing fruitful collaborative learning experiences, with teachers facilitating conversations, answering questions, and offering assistance while letting students take charge of their learning."

5. Discussion

The result showed there were statistically significant differences between the scores of the control and experimental groups on the post-test of the performance test and assessment card. The results were in favor of the experimental group. The effect size was also high except for the first domain, which was medium. The result means that the training program helped students develop their English learning skills and enrich their social interaction in terms of collaborative learning skills of teamwork, peer-to-peer learning, and social intelligence. The reasons for these results can be attributed to focused instruction, increased engagement and participation, skill development,

additional support and guidance, innovative teaching strategies, more time and attention to collaborative learning activities, and regular feedback.

The results of this study are consistent with the current literature that highlights the role of collaboration in influencing EFL students' performance. For example, Storch (1999) found that collaborative learning enhanced overall language learning experience. Chiu (2022) revealed that peer learning produced better results than individual involvement. Zarifi and Taghavi (2016) showed that cooperative learning improved the language proficiency of EFL learners. Almashani et al. (2023) found that cooperative learning strategies can improve EFL grammar competency. The results of Rad and Sahragard's (2019) analysis, however, contradict this study's results, which show that there was no statistically significant difference between the language competency test scores of the traditional approach group and the collaborative method group.

Additionally, the content analysis's findings listed a number of ways through which collaborative learning can enrich EFL students' English and social learning experience and success. According to the qualitative analysis, the ways include, but are not limited to, the content analysis lists a variety of ways for collaborative learning, such as group projects, debates and discussion groups, role-playing and simulations, effective teacher facilitation, and role-playing. The teachers provided these ways to enhance collaboration as they believe that these activities would enhance EFL students' English and collaborative learning experiences by entertaining, motivating, and inspiring them. They also foster interest, stimulate, and excite students, enhancing their language skills and social interactions, and fostering a sense of social connectedness. The present study's content analysis corroborates the existing body of literature that emphasizes the role of collaborative learning in impacting their language performance such as Vega-Abarzúa et al. (2022), who show a distinct relationship between learners' task engagement and collaborative learning and Elizalde-Rivera and Criollo-Vargas (2020), who demonstrated a noteworthy improvement in students' grammatical knowledge and an improvement in their teamwork efficiency. Besides, the qualitative findings of the current study concur with Hung (2019), whose research suggested that EFL instructors using cooperative learning should take on a crucial role as facilitators and advisors to assist students in resolving issues emerging from assignments and socialization. Furthermore, the results of the current study's analysis are consistent with those of Gulnaz (2020), who found that classroom debate effectively develops a variety of skills including collaboration, critical thinking, reflection and contemplation, which in turn develop students' productive, receptive, and analytical, skills. Additionally, the results of the qualitative analysis are consistent with those of Rojas and Villafuerte (2018), who found that role play, as an instructional strategy, gives students exposure to real-world scenarios in order to improve their capacity for meaningful and natural peer-to-peer communication about events related to their everyday lives and future careers.

Moreover, the study's findings demonstrate the beneficial effects of collaborative learning on EFL students' social interaction and English language acquisition. The results align with the Social Construction Theory and the Theory of Social Development, emphasizing the significant contribution of social interaction in the learning process. Based on this study, it is evident that collaborative learning reinforces these theories, particularly in terms of social intelligence, teamwork, and peer learning. The study illustrates how knowledge and skills are created and enhanced through social interaction within a learning environment, specifically within an intervention program in the current study's context. Furthermore, the results underscore how language learning experiences markedly improve when students engage in collaborative learning. The findings also support the notion that a collaborative learning environment enhances language fluency and skills through increased interaction and participation. The study identifies various collaborative learning techniques, including group projects, discussions, role-playing, and effective teacher guidance. Additionally, the results highlight the relationship between task engagement and collaborative learning, demonstrating that active participation in group projects significantly impacts learning outcomes. Notably, the absence of contradicting data contributes to the study's consistency and validates the positive effects of collaborative learning on the language acquisition

and social interactions of EFL students. In summary, the study's findings reaffirm theoretical frameworks and existing research, emphasizing the benefits of collaborative learning in enhancing EFL students' language acquisition and socialization. These favorable results contribute to the growing body of evidence suggesting that collaborative learning, with its diverse strategies and active participation, improves students' language proficiency and fosters a sense of social connectedness in classroom environments.

6. Conclusion

The objective of this study was to examine the effect of a collaborative learning intervention program on EFL students English learning and social interaction. The findings showed that collaborative learning would improve student's English skills and enrich their social interaction. Based on these findings, it is implicit that collaborative learning components, such as teamwork, peer learning, and social intelligence, if implemented effectively especially through an intervention program, can boost EFL learners English learning experience. It is also revealed that collaborative instructions, through a training program, were crucial. Some collaborative tasks attributed to the first domain demonstrated the medium effect size; but, the results in other domains, such as peer learning and social intelligence including the total, indicated that collaborative learning environment enhanced participants' English learning and social interactions. Furthermore, the content analysis of the semi-structured interviews discovered that there are a variety of ways, to enhance EFL students learning success, such as group projects, collaborative writing with pair editing, debates and discussion groups, role-playing and task recreations, peer feedback, and teacher facilitation. The researchers, based on the findings believe that supportive instructional environments and continual teacher development are crucial to enhance the effectiveness of collaborative learning in general English instructions.

The intervention program's effectiveness has far-reaching implications, including language development, communication skills, learning autonomy, social, cultural, and interactive aptitude, supportive learning environments, and chances for ongoing research and development. In addition, the current study has significant implications for using collaborative learning strategies to enhance prep year students English and social interactions. It is anticipated that teachers will establish a stimulating and collaborative environment with engaging collaborative assignments and tasks for the students. To accomplish the shared goals in the English classroom, teachers are expected to adapt teamwork, peer learning, and social intelligence tasks, particularly for those who might not be able to do the tasks on their own.

7. Limitations and Future Research

While this study sheds light on the impact of collaborative learning on EFL students' English learning and social interaction, several limitations need consideration. Generalizations about the study's participants – teachers and students – should be done with caution. If additional variables and tools are used, the findings can vary. The short duration of four weeks may limit its sustainability, and its context at Najran University limits its generalizability to other contexts. The study also did not detail the impact of individual language competencies. Future research should explore instructional durations, cultural variables, and specific tasks or techniques to better understand collaborative learning's effectiveness across diverse populations. Additionally, the current study focused on three areas of collaborative learning (social intelligence, teamwork, peer learning). Future studies should take into account other specific aspects of collaborative learning in learning English.

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References

- Abuhabil, S., & Aswese, S. (2018). The importance of using collaborative learning strategy in learning English writing. *Revue de la faculté des Lettres université de Misurata*, 12, 43-63. <https://doi.org/10.36602/faj.2018.n12.10>
- Al Jawad, A. S. H. (2023). The effect of using cooperative learning method in enhancing EFL students' performance in speaking skill in Libyan universities: A case study of Benghazi University. *International Journal of Linguistics, Literature and Translation*, 6(6), 64-74. <https://doi.org/10.32996/ijllt.2023.6.6.7>
- Alalimi, M. (2020). The impact of weblogs on teaching translation: Yemeni learners' attitudes and perceptions. *Anatolian Journal of Education*, 5(2), 59-72. <https://doi.org/10.29333/aje.2020.525a>
- Alghamdy, R. Z. (2019). EFL learners' reflections on cooperative learning: Issues of implementation. *Theory and Practice in Language Studies*, 9(3), 271-277. <https://doi.org/10.17507/tpls.0903.03>
- Almashani, H. A., Kashoob, A. A. M., & Aladini, A. (2023). The impact of cooperative learning on improving omani intermediate EFL learners' grammar skills. *Educational Sciences Journal*, 31(3), 29-46. <https://doi.org/10.21608/ssj.2023.318700>
- Alsehibany, R. A. (2021). EFL Saudi student's attitudes toward peer feedback activities in a writing class. *PSU Research Review*. Advanced Online Publication. <https://doi.org/10.1108/PRR-01-2021-0004>
- Altun, M., & Sabah, R. (2020). The effect of cooperative learning strategies in the enhancement of EFL learners' speaking skills. *Asian EFL Journal*, 27(2), 144-171.
- Augustina, L. (2022). Encouraging students to do collaborative learning in ESP Course to strengthen students' oral communication skill. *Journal of Languages and Language Teaching*, 10(1), 76-84. <https://doi.org/10.33394/jollt.v10i1.4353>
- Berger, P. L., & Luckmann, T. (1966). *The social construction of reality*. Doubleday.
- Bhandari, B. L. (2022). Effectiveness of collaborative learning for improving learners' writing proficiency in English classrooms. *Tribhuvan University Journal*, 36(01), 199-210. <https://doi.org/10.3126/tuj.v36i01.43624>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Bruffee, K. A. (1984). Collaborative learning and the "conversation of mankind. *College English*, 46(7), 635-652. <https://doi.org/10.2307/376924>
- Burr, V. (2015). *Social constructionism*. Routledge. <https://doi.org/10.4324/9781315715421>
- Chiu, E. F.-Y., Chen, Y.-S., & Tai, H.-Y. (2022). Investigations into EFL students' pragmatic and grammatical awareness through peer collaboration. *Sustainability*, 14(17), 10568. <https://doi.org/10.3390/su141710568>
- Contreras León, J. J., & Castro, C. M. (2017). Transforming EFL classroom practices and promoting students' empowerment: Collaborative learning from a dialogical approach. *PROFILE: Issues in Teachers' Professional Development*, 19(2), 135-149. <https://doi.org/10.15446/profile.v19n2.57811>
- Deng, Y., Mueller, M., Rogers, C., & Olechowski, A. (2021). The multi-user computer-aided design collaborative learning framework. *Advanced Engineering Informatics*, 51, 101446. <https://doi.org/10.1016/j.aei.2021.101446>
- Ehsan, N., Vida, S., & Mehdi, N. (2019). The impact of cooperative learning on developing speaking ability and motivation toward learning English. *Journal of Language and Education*, 5(19), 83-101. <https://doi.org/10.17323/jle.2019.9809>
- Elizalde-Rivera, M. A. & Criollo-Vargas M. I. (2020). Collaborative learning techniques to improve the English grammar competence. *Polo Del Conocimiento*, 5(4), 356-368.
- Elsayed, M. (2023). The effectiveness of using jigsaw strategy in comparison to traditional lecturing in enhancing reading comprehension skills of Saudi EFL learners. *International E-Journal of Advances in Education*, 8(24), 247-260. <https://doi.org/10.18768/ijaedu.1197483>
- Er, S., & Ataç, B. A. (2014). Cooperative learning in ELT classes: The attitudes of students towards cooperative learning in ELT classes. *International Online Journal of Education and Teaching*, 1(2), 109-122.
- Gamson, Z. F. (1994). Collaborative learning comes of age. *Change: The Magazine of Higher Learning*, 26(5), 44-49. <https://doi.org/10.1080/00091383.1994.10544652>

- Gerlach, J. M. (1994). Is this collaboration? In Bosworth, K. & Hamilton, S.J. (Eds.), *Collaborative learning: underlying processes and effective techniques, new directions for teaching and learning*, (pp. 5-14). Jossey-Bass Publishing. <https://doi.org/10.1002/tl.37219945903>
- Gilbert, J. (2021). Mentoring in a Cooperative Learning Classroom. *International Journal for the Scholarship of Teaching and Learning*, 15(2), 1-7. <https://doi.org/10.20429/ijsoftl.2021.150202>
- Gokhale, A. A. (1995). Collaborative learning enhances critical thinking. *Journal of Technology Education*, 7(1), 22-30. <https://doi.org/10.21061/jte.v7i1.a.2>
- Gulnaz, F. (2020). Fostering Saudi EFL learners' communicative, collaborative and critical thinking skills through the technique of in-class debate. *International Journal of English Linguistics*, 10(5), 265-283. <https://doi.org/10.5539/ijel.v10n5p265>
- Ha, T. Y. N., Nguyen, T. B. N., Nguyen, N. L. D., & Tran, T. N. (2022). The effects of collaborative learning on young ESL Learners' L2 anxiety and speaking performance. *International Journal of Asian Education*, 3(2), 125-137. <https://doi.org/10.46966/ijae.v3i2.286>
- Ho, B.Q. (2021). Effects of learning process and self-efficacy in real-world education for sustainable development. *Sustainability*, 13(1), 403. <https://doi.org/10.3390/su13010403>
- Huang, M., Hsiao, W., Chang, T. & Hu, M. (2012). Design and implementation of a cooperative learning system for digital content design curriculum: Investigation on learning effectiveness and social presence. *Turkish Online Journal of Educational Technology*, 11(4), 94-107.
- Hung, B. P. (2019). Impacts of cooperative learning: A qualitative study with EFL students and teachers in Vietnamese colleges. *Issues in Educational Research*, 29(4), 1223-1240.
- Kagan, S., & Kagan, M. (2017). *Kagan cooperative learning*. Kagan Publishing.
- Krange I. & Ludvigsen S. (2008) 'What is mean?' Students' procedural and conceptual problem solving in a CSCL environment designed within the field of science education. *International Journal of Computer-supported Collaborative Learning*, 3, 25-51. <https://doi.org/10.1007/s11412-007-9030-4>
- Latifa, A. (2021). Collaborative learning as a strategy to improve the English Reading Comprehension of Indonesian learners in the agribusiness department at Muhammadiyah University of Parepare. *Journal of English Language Teaching and Applied Linguistics*, 3(2), 78-84. <https://doi.org/10.32996/jeltal.2021.3.1.8>
- Lazakidou, G., & Retalis, S. (2010). Using computer supported collaborative learning strategies for helping students acquire self-regulated problem-solving skills in mathematics. *Computers & Education*, 54(1), 3-13. <https://doi.org/10.1016/j.compedu.2009.02.020>
- Mende, S., Proske, A., & Narciss, S. (2021). Individual preparation for collaborative learning: Systematic review and synthesis. *Educational Psychologist*, 56(1), 29-53. <https://doi.org/10.1080/00461520.2020.1828086>
- Namazandost, E., Gilakjani, A. P., & Hidayatullah. (2020). Enhancing pre-intermediate EFL learners' reading comprehension through the use of Jigsaw technique. *Cogent Arts & Humanities*, 7(1), 1738833.
- Nasser, R. (2019). *Educational reform in Oman: System and structural changes*. Intech Open. <https://doi.org/10.5772/intechopen.84913>
- Odehova, N., Nevska, Y., & Perlova, V. (2022). The effectiveness of cooperative learning in developing grammar skills. *Advanced Education*, 20, 25-34. <https://doi.org/10.20535/2410-8286.239888>
- Rad, N. F., & Sahragard, R. (2019). The impact of the participatory approach on EFL learners' language proficiency with a focus on teachers' perspective. *Iranian Journal of English for Academic Purposes*, 8(3), 48-64.
- Rao, P. S. (2019). Collaborative learning in English language classrooms. *Academicia: An International Multidisciplinary Research Journal*, 9(2), 5-16. <https://doi.org/10.5958/2249-7137.2019.00020.X>
- Restivo, S. (2022). *Social construction: the fundamental theorem in inventions in sociology*. Palgrave Macmillan. https://doi.org/10.1007/978-981-16-8170-7_6
- Riley, W., & Anderson, P. (2006). Randomized study on the impact of cooperative learning: Distance education in public health. *The Quarterly Review of Distance Education*, 7(2), 129-144.
- Robert, R., Calor, A., Wilson, J. J., & Consgrrove, A. (2017). *New total English-Intermediate flexi*. Pearson.
- Rojas, M. A., & Villafuerte, J. (2018). The influence of implementing role-play as an educational technique on EFL speaking development. *Theory and Practice in Language Studies*, 8(7), 726-732. <https://doi.org/10.17507/tpls.0807.02>
- Roschelle, J. (1992). Learning by collaborating: convergent conceptual change. *Journal of the Learning Sciences*, 2, 235-276. https://doi.org/10.1207/s15327809jls0203_1
- Roseth, C., Johnson, D. & Johnson, R. (2008). Promoting early adolescents' achievement and peer relationships. *Psychological Bulletin*, 134(2), 223-246. <https://doi.org/10.1037/0033-2909.134.2.223>

- Sheth, M., Samreen, N., Rapoport, I., Slanetz, P. J., Fornari, A., & Lewis, P. (2020). Harnessing the power of low-tech collaborative learning. *Journal of Breast Imaging*, 2(6), 609–614. <https://doi.org/10.1093/jbi/wbaa054>
- Spence, C. (2022). *Collaborative learning: the science behind it, and why it works*. Cambridge University Press & Assessment.
- Storch, N. (1999). Are two heads better than one? Pair work and grammatical accuracy. *System*, 27(3), 363–374. [https://doi.org/10.1016/S0346-251X\(99\)00031-7](https://doi.org/10.1016/S0346-251X(99)00031-7)
- Tolmie, A. K., Topping, K. J., Christie, D., Donaldson, C., Howe, C., Jessiman, E., ... & Thurston, A. (2010). Social effects of collaborative learning in primary schools. *Learning and instruction*, 20(3), 177-191. <https://doi.org/10.1016/j.learninstruc.2011.01.001>
- Umar, A. M. A. T., Adamm, A. A., & Fahal, A. A. (2020). Impact of cooperative learning on achievement in an English as a second language classroom. *International Journal of English and Education*, 9(3), 1–15.
- Vega-Abarzúa, J., Pastene-Fuentes, J., Pastene-Fuentes, C., Ortega-Jiménez, C., & Castillo Rodríguez, T. (2022). Collaborative learning and classroom engagement: A pedagogical experience in an EFL Chilean context. *English Language Teaching Educational Journal*, 5(1), 60-74.
- Vygotsky, L. S. (1978). *Mind in society: the development of higher psychological processes*. Harvard University Press.
- Woolfolk, A. (1998). *Educational psychology*. Allyn and Bacon.
- Yavuz, O., & Arslan, A. (2018). Cooperative learning in acquisition of the English language skills. *European journal of educational research*, 7(3), 591-600. <https://doi.org/10.12973/eu-jer.7.3.591>
- Zarifi, A., & Taghavi, A. (2016). The impact of cooperative learning on grammar learning among Iranian intermediate EFL learners. *Theory and Practice in Language Studies*, 6(7), 1429. <https://doi.org/10.17507/tpls.0607.14>