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Impacts of Cooperative Learning in Developing EFL students' Cognitive Abilities and Learning Achievement

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Declaration of Originality

I hereby declare that this submission is my work and that, it contains no material previously

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qualification of any other degree or diploma of a university or other institution.

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Dedication

I dedicate this dissertation to God, thank you for giving me with the strength and wisdom to persevere through this journey. Without your grace and mercy, I would not have reached this milestone in my life.

To my parents, who have supported me in every way possible. You have sacrificed so much for me to pursue my academic dreams, and you have been my pillars of strength through every challenge. You instilled in me the values of hard work, determination and perseverance, which have helped me overcome any obstacle. Your belief in me has been a constant source of strength and has propelled me forward toward my goals. Thank you for everything you have done for me, Mom and Dad. I love you both more than words can express.

This dissertation is also dedicated to my beloved brother and two sisters as a token of my appreciation for your support and love. Thank you for always being there for me, offering advice and guidance, and cheering me on in both my successes and failures.

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Abstract

This study aimed to investigate the effectiveness of cooperative learning in enhancing EFL students' language learning and to provide recommendations for its implementation. The study addressed three research questions related to the impact of cooperative learning on motivation and engagement, language skill development, and effective implementation strategies. The results indicated that cooperative learning had a positive impact on EFL students' motivation and engagement in language learning, resulting in significant improvements in language skills. The study also found that effective implementation of cooperative learning strategies in EFL classrooms required promoting peer interaction, motivation, and language skills while emphasizing individual accountability and evaluation. The study provides valuable recommendations for EFL teachers, including raising awareness about cooperative learning, establishing group goals and roles, considering assessment, building trust, and focusing on writing. The study also suggests implications for future research, including investigating the effectiveness of cooperative learning in different contexts and age groups, exploring its impact on specific language skills, and identifying factors that influence successful implementation.

Keywords:

cooperative learning, EFL education, language skills, motivation, implementation.

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List of abbreviations and acronyms

- **CL** Cooperative Learning
- **EFL** English as a Foreign Language
- **SLT** Social Learning Theory
- **CIT -** Social Interdependence Theory
- **CT** Constructivist Theory
- **SDT -** Self-Determination Theory
- **L2** Second Language
- L1 First Language
- **ELT** English Language Teaching
- **ESL** English as a Second Language
- PBL Problem-Based Learning
- TBL Task-Based Learning
- ICT Information and Communication Technology
- **TESOL** Teaching English to Speakers of Other Languages
- **IEP -** Individualized Education Program
- **CLT -** Communicative Language Teaching
- FLA Foreign Language Acquisition
- MMR- mixed methods research

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General Introduction

General Introduction

The significance of English as a foreign language (EFL) has witnessed a remarkable surge in our interconnected world, owing to its status as the predominant language for global communication. Consequently, the pursuit of effective teaching approaches for EFL has emerged as an indispensable field of research. Among the various methods under scrutiny, cooperative learning has garnered considerable interest in recent times.

Collaborative learning stands as a pedagogical strategy that places emphasis on the joint endeavours of students in pursuit of shared objectives. This approach entails students working collectively in compact clusters to fulfil assignments, and has proven to yield numerous advantages for language acquisition. These include heightened motivation, enhanced linguistic proficiency, and augmented social and interpersonal growth.

The underpinnings of cooperative learning find their roots in the realm of social interdependence theory, which posits that fostering a sense of positive interdependence among individuals within a group can engender heightened motivation, exertion, and accomplishment. This theoretical framework implies that the implementation of cooperative learning in the context of EFL can enrich students' language acquisition endeavours by fostering dynamic engagement, purposeful discourse, and an interdependent learning dynamic among learners.

Despite the potential benefits of cooperative learning, the extent to which it is effective in enhancing EFL students' language learning is still not well understood.

Related research has shown that cooperative learning can be an effective teaching method for language learning, but more research is needed to understand its potential benefits for EFL students specifically. For example, a meta-analysis by Lin and Huang (2018) found that cooperative learning had a moderate to large effect on language learning outcomes, such

as vocabulary, grammar, and listening comprehension. However, most of the studies included in the meta-analysis were conducted with ESL (English as a second language) learners, and few studies have focused specifically on EFL learners. This highlights the need for further research to investigate the impact of cooperative learning on EFL students' language development.

The study aims to investigate the role of cooperative learning in enhancing EFL students' language learning and to provide recommendations for effective implementation. This study is significant as it seeks to contribute to the understanding of the potential benefits of cooperative learning for EFL education.

The study will explore the impact of cooperative learning on EFL students' motivation, engagement, and language development, with a focus on language skills such as speaking, listening, reading, and writing. The study will also examine the impact of cooperative learning on students' language use and communication abilities in real-life situations. Additionally, the study will seek to identify effective strategies for integrating cooperative learning into EFL curricula, to maximize its benefits for language learning.

This work is invigorated by the following questions:

- 1. How does cooperative learning affect the motivation and engagement of EFL students in the language learning process?
- 2. To what extent does the use of cooperative learning strategies enhance the development of language skills (e.g. speaking, listening, reading, writing) among EFL students?
- 3. How can teachers effectively integrate cooperative learning into their EFL curriculum to maximize its benefits for students' language learning?

The current research is based on the following hypotheses:

- Hypothesis 1: The use of cooperative learning strategies will increase EFL students'
 motivation and engagement in the language learning process.
- Hypothesis 2: The implementation of cooperative learning strategies will result in a significant improvement in EFL students' language skills.
- Hypothesis 3: EFL teachers who effectively integrate cooperative learning into their curriculum will see a greater improvement in their students' language learning compared to those who do not use cooperative learning strategies.

This dissertation consists of three chapters. The first chapter provides an overview of cooperative learning in EFL education, including its different types, methods, advantages, and theories. The second chapter details the methodology, research design, and data collection procedures employed to investigate cooperative learning. The third chapter presents the analysis and interpretation of data collected through questionnaires and interviews, as well as recommendations to enhance cooperative learning. The dissertation concludes by discussing the limitations of the research work.

Chapter One: Literature Review related to Cooperative Learning

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1.1 Introduction

This chapter presents an overview of cooperative learning, including its application in education and, in particular, English as a foreign language (EFL) acquisition. It examines the many types and techniques of cooperative learning, as well as the responsibilities of instructors and students in cooperative learning, and the mechanisms for implementing it in the classroom. The chapter also looks at the benefits of employing cooperative learning.

The final half of the chapter delves into cooperative learning theories and models in EFL education, such as social interdependence theory, constructivist theory, self-determination theory, and social learning theory. The cognitive aspect of cooperative learning is also explored, with an emphasis on cognitive talents as they relate to cooperative learning. Finally, the chapter finishes with an overview of cooperative ideas and models.

1.2 Cooperative Learning: An Overview

According to Johnson et al. (1991), cooperative learning is defined as "the instructional use of small groups so that students work together to maximize their own and each other's learning."

In the same vein, cooperative learning is a teaching strategy that utilizes small groups to facilitate students' learning by working collaboratively to achieve their goals (Johnson et al., 1994). Cooperative learning is related to collaborative learning, which emphasizes that learning occurs as a result of the community (Johnson & Johnson, 1999).

Cooperative learning is a teaching style in which students cooperate in small groups to achieve a common objective. This method emphasises group members' active engagement,

mutual support, and interdependence. Cooperative learning benefits include greater student involvement, improved social skills, and higher academic accomplishment.

Cooperative learning provides various advantages over traditional, teacher-centered approaches to teaching. Several significant benefits of implementing cooperative learning in the classroom were discovered by Kagan and Kagan (2009), including:

Increased student engagement: Cooperative learning structures promote active participation and involvement among all group members, which can help to increase student motivation and interest in the learning process.

Learning cooperatively helps children acquire crucial social skills including communication, collaboration, and dispute resolution.

Improved academic achievement: Research has shown that students who participate in cooperative learning tend to achieve higher academic outcomes than those who do not.

Increased cultural awareness: Cooperative learning provides opportunities for students from different backgrounds to work together and learn from each other, which can help to foster greater cultural understanding and empathy.

Improved self-esteem: Cooperative learning can help to boost students' confidence and self-esteem, as they are able to contribute to their group's success and receive support and encouragement from their peers.

It is important to note that the benefits of cooperative learning are contingent on effective implementation and ongoing monitoring of group interactions. Teachers must provide clear instructions, establish clear goals and expectations, and provide support and feedback to ensure that all group members are actively engaged and learning.

1.3Types of Cooperative Learning and their Structures

Cooperative learning is an instructional approach in which students actively engage in group-based tasks or activities to achieve specific learning goals. According to Johnson et al. (2014), this strategy can take many various shapes, depending on the students' individual learning goals and requirements. Some examples of frequent cooperative learning systems are:

The jigsaw structure is a cooperative learning approach in which students are separated into small groups and allocated a distinct section of the subject to learn. Students then gather with other students who were assigned the same section of the curriculum to discuss and share their knowledge. Finally, the students return to their original groups to share their knowledge with their peers. (Aronson et al., 1978).

The think-pair-share structure involves students working in pairs to share their ideas and perspectives on a given topic or question, before sharing their ideas with the larger group. This approach promotes active listening and engagement, as well as critical thinking and reflection (Lyman &Foord, 1994).

A cooperative learning framework "group investigation" in which students are separated into small groups and given an issue or subject to research is known as group investigation. The students then collaborate to acquire information, study the issue, and devise a solution. The groups then report their results to the class. Group inquiry is an excellent technique to develop group members' teamwork, communication, and leadership abilities. Students learn how to collaborate to reach a common objective and get the opportunity to hone their communication and leadership abilities. This can help students succeed in school and in their future employment.

Numbered heads together: According to Johnson, Johnson, and Holubec (2013), this structure involves assigning each student in a group a number, and then posing a question or problem for the group to solve. Students work together to come up with an answer, and then one member of the group is chosen at random to share their group's response.

These structures are designed to promote active participation, positive interdependence, and individual accountability among group members. However, it is important to note that effective implementation of cooperative learning requires careful planning, teacher support, and ongoing monitoring of group interactions.

1.4Cooperative Learning Methods

Structured dispute is a popular cooperative learning strategy in which students are divided into opposing groups and assigned to investigate and deliver arguments on a contentious subject. This approach can assist students improve their critical thinking, communication, and perspective-taking abilities.

Johnson, Johnson, and Smith (1998) define structured controversy as a "structured, interactive activity in which students learn to investigate an issue, share information, and develop and defend their own positions" (p. 10). This technique is founded on the premise that students learn more successfully when they are actively involved in the learning process and are exposed to several points of view on a topic.

According to a study by Greenwood, Carta, and Hall (1988), peer tutoring has been shown to have positive effects on both the tutor and the tutee, resulting in improved academic performance and increased social skills. The authors suggest that peer tutoring is an effective strategy for providing individualized instruction and promoting social interaction in the classroom (Greenwood et al., 1988).

Reciprocal teaching is a cooperative learning method that is widely used in language learning contexts. According to Palincsar and Brown (1984), this approach involves students taking turns to act as the teacher, leading the group in the discussion and analysis of a text or concept. Reciprocal teaching fosters active participation, critical thinking, and communication skills among students.

Project-based learning is a cooperative learning method in which students work in small groups to solve real-world problems or complete projects. Each student takes on a specific role or responsibility, which promotes leadership skills, collaboration, and the real-world application of knowledge and skills.

Project-based learning, according to Johnson et al. (2014), is a successful cooperative learning strategy, particularly in STEM (Science, Technology, Engineering, and Mathematics) domains. In their study, they discovered that students who engaged in project-based learning outperformed students who did not on measures of problem-solving, critical thinking, and creativity. Students who participated in project-based learning were also found to be more interested in their learning and to have a more positive attitude towards school.

1.5 Cooperative Learning in Education

Cooperative learning refers to a systematic instructional approach that integrates group-based activities into the learning process to facilitate academic achievement and social development. Since the 1990s, when David and Roger Johnson presented the five core characteristics required for successful small-group learning, this technique has earned substantial attention and acclaim.

Figure 1.1 Johnson, Johnson and Smith's Five Pillars of Cooperative Learning

Cooperative Learning Individual accountability Promotive, face-to-Social skills **Positive Group processing** "Although my team "Working effectively interdependence face interaction "Our team has to reflect members can help with the "We need contributions "How I think, talk, and together as a team assigned task, my on its performance and from each of my team act toward my team means that I need to individual think together about members will influence improve my members if we're doing performance/contribution how we might improve. to succeed." how well we perform." interpersonal skills." will shape my grade.

Positive interdependence occurs when students believe they are working towards a shared goal and that their success is contingent on the success of their group members. Face-to-face contact occurs when students connect with one another face-to-face in order to communicate ideas and knowledge. Individual and group accountability refers to the practise of holding students accountable for their personal learning as well as the learning of their group members. When pupils are taught the interpersonal, social, and collaborative skills required for working with others, they are receiving social skills teaching. Finally, group processing occurs when students reflect on the performance of their group and make necessary modifications (Johnson and Johnson,1999).

Cooperative learning has been found to have numerous benefits in educational settings. It can increase student engagement, promote positive attitudes towards learning, and enhance social skills. Cooperative learning can also improve academic achievement, particularly in areas such as math, science, and language arts.

One example of successful implementation of cooperative learning in education is the use of the jigsaw approach. In the jigsaw approach, a complex topic is divided into subtopics, and each student in a small group is assigned one subtopic. Students then work together to become experts on their subtopic and teach it to their group members. This approach has been found to promote deeper understanding of complex topics, enhance critical thinking skills, and foster a sense of responsibility and accountability among students.

In conclusion, cooperative learning is a valuable instructional approach that can promote student engagement, enhance social skills, and improve academic achievement. The jigsaw approach is one example of a successful cooperative learning structure, but there are many other structures that can be used depending on the learning goals and needs of the students. With careful planning and support from teachers, cooperative learning can be implemented effectively in a variety of educational settings.

1.6Theories and Models in Cooperative Learning in EFL Education

There are many theoretical frameworks which facilitate cooperative learning in English as a foreign language (EFL). According to Johnson and Johnson (2009), while using social interdependence theory, EFL students are eager to learn when they are collaborating towards a shared objective.

Another important framework is cognitive development theory, which emphasizes the importance of social interaction in promoting higher-order thinking and problem-solving skills (Vygotsky, 1978).

In addition to these theories, there are several models of cooperative learning that have been applied in EFL education. One example is the jigsaw method, in which students are divided into small groups and each group is responsible for mastering a specific piece of information. Group members then reunite to share their knowledge and construct a general grasp of the topic (Aronson et al., 1978). the think-pair-share is another method, which

involves individual reflection followed by discussion in pairs and then in larger groups (Lyman & Frederick, 1988). The group investigation model involves student-led research projects that emphasize collaborative planning, data collection, and analysis (Sharan & Sharan, 1994).

These models and theories have been found to be effective in promoting EFL learning outcomes, including improved speaking and listening skills, enhanced vocabulary acquisition, and increased motivation and engagement (Li, 2015; So& Kim, 2019). However, successful implementation of cooperative learning in EFL education requires careful planning and attention to factors such as group composition, task design, and teacher support (Johnson & Johnson, 2009).

1.6.1 Social Interdependence Theory

According to Johnson and Johnson (2013), "Social interdependence exists when the accomplishment of each individual's goals is affected by the actions or outcomes of others in the same group" (p. 281).

According to social interdependence theory, persons' results are contingent on the outcomes of those with whom they engage. According to this idea, there are two forms of social interdependence: positive and negative.

Individuals perceive positive interdependence when they believe their outcomes are connected to the outcomes of others in the same group. According to Johnson and Johnson (1999), this dependency raises teamwork. For example, if a group of students is working on a project together, they will all be successful if they collaborate and assist one another. They state that "when individuals are positively interdependent, they strive to ensure that everyone in their group achieves success and are able to support each other in achieving their shared goals" (p. 33).

Negative interdependence develops when people believe their results are in conflict with those of others. This form of reliance breeds rivalry and individualism. If two students are vying for the same grade, they are less inclined to support one other and more likely to undermine each other.

As Johnson and Johnson (2013) explain, "When individuals perceive themselves as part of a cooperative community, they are more likely to support each other, communicate effectively, and work collaboratively towards shared goals" (p. 286). This sense of community can create a positive learning environment that supports academic and social growth.

In summary, Social Interdependence Theory provides a theoretical basis for understanding the importance of positive interdependence in promoting cooperation and collaboration among individuals or groups. Cooperative learning structures that foster positive interdependence can enhance student learning outcomes and promote a sense of community among group members.

1.6.1.1 Criticism of Social Interdependence Theory

Social interdependence theory has been widely used to support cooperative learning, but it has also faced some criticisms. One of the criticisms is that it places too much emphasis on competition and goal attainment, and not enough on the development of interpersonal relationships and social skills (Slavin, 1995).

Another criticism is that it assumes that all individuals in a group have the same level of motivation and ability, which is not always the case (Johnson & Johnson, 1989). Additionally, some researchers argue that social interdependence theory ignores the impact of

individual differences, such as personality and learning styles, on the success of cooperative learning (Kirschner, Buckingham Shum, &Carr, 2003).

Moreover, social interdependence theory assumes that individuals are primarily motivated by the desire to achieve a common goal, and may not adequately account for other motives, such as the desire for recognition or personal gain (Slavin, 1995). Finally, critics suggest that social interdependence theory does not fully address issues of power dynamics and social hierarchies within a group, which can have a significant impact on group dynamics and the success of cooperative learning (Johnson & Johnson, 1989).

1.6.2 Constructivist Theory

Constructivist theory is another theoretical framework that underpins cooperative learning. According to constructivism, learning is an active process in which learners construct their own understanding of the world based on their experiences and interactions with the environment (Jonassen & Land, 2012). This means that learning is not a passive reception of information but rather an active process of constructing meaning.

Cooperative learning is consistent with constructivist theory principles since it emphasises the necessity of active participation and immersion in the educational experience. Students are given the opportunity to freely enhance their understanding of the subject matter via debate, cooperation, and reflection by cooperating in small groups (Slavin, 2015). This strategy promotes meaningful and significant learning by allowing students to make connections between new knowledge and prior knowledge and personal encounters.

Constructivist philosophy emphasises the need of providing opportunities for learners to engage in authentic language use scenarios in EFL teaching. This indicates that, within the context of cooperative learning, students are accountable not only for developing their own

grasp of the language, but also for actively participating in conversation with their peers. This collaborative activity helps them improve their linguistic skills (Johnson & Johnson, 1999).

As stated by Jonassen and Land (2012), "constructivism emphasizes active participation, engagement, and responsibility for learning in the learner" (p. 8). Cooperative learning supports this approach by promoting active participation and engagement among students. Slavin (2015) further supports this idea by stating that "the construction of new knowledge is optimized when learners engage in social interaction, reflect on their own thinking, and receive feedback from others" (p. 29).

1.6.2.1 Criticism of Constructivist Theory

Constructivist theory has received criticism for its focus on individualized learning experiences, which some argue may lead to a lack of accountability and the potential for students to become isolated from their peers (Cohen, 1994). Additionally, constructivist approaches can be time-consuming and difficult to implement, requiring significant resources and training for teachers (Hiebert & Carpenter, 1992).

Another criticism of constructivist theory is that it may not provide enough structure and guidance for students who may struggle with self-directed learning (Clark, 2012). This can be particularly problematic for students from disadvantaged backgrounds who may not have the necessary prior knowledge or skills to fully engage in a constructivist learning environment.

Furthermore, some researchers have raised concerns about the lack of empirical evidence supporting the effectiveness of constructivist approaches, particularly in comparison to more traditional instructional methods (Biemans et al., 2004; Kirschner et al., 2006).

1.6.3 Self-Determination Theory

Self-determination theory is another theoretical framework that has been applied to cooperative learning. According to self-determination theory, individuals are motivated to engage in activities that meet their basic psychological needs for autonomy, competence, and relatedness (Ryan & Deci, 2000). Autonomy refers to the need to have control over one's own life and decisions, competence refers to the need to feel capable and effective in one's actions, and relatedness refers to the need for social connections and relationships with others.

Cooperative learning can support students' basic psychological needs and foster their intrinsic motivation to learn. By working together in small groups, students have a sense of autonomy as they have some control over their learning and decision-making within their group (Johnson et al., 2014). They also have opportunities to develop their competence through collaboration with their peers, and to satisfy their need for relatedness through social interactions with their group members.

Self-determination theory in EFL education claims that cooperative learning may successfully increase learners' motivation and engagement in the language learning process. By providing opportunities for students to cooperate in a loving and supportive environment, they are more likely to develop a sense of competence and self-assurance in using the language, as well as good interpersonal relationships with their peers (Tsiplakides&Keramida, 2010).

As Ryan and Deci (2000) explain, "when people experience a sense of choice, competence, and relatedness with respect to their actions, they are likely to be intrinsically motivated to engage in those actions" (p. 68). Cooperative learning can provide these experiences for students and foster their intrinsic motivation to learn and succeed. Johnson et al. (2014) also support this idea, stating that "students are motivated to work together to

achieve a common goal, and this motivation can help to sustain their engagement and effort" (p. 11).

1.6.3.1 Criticism of Self-Determination Theory

According to one criticism, SDT places an undue emphasis on individual autonomy and may fail to recognise the importance of group dynamics in the cooperative learning process (Wang & Holcombe, 2010).

Another critique suggests that SDT may not fully account for cultural differences and may be more applicable to individualistic cultures, rather than collectivistic cultures where group cohesion and interdependence are highly valued (Cheng & Furnham, 2012).

1.6.4. Social Learning Theory

The use of Social Learning Theory as an alternative theoretical framework has also aided cooperative learning. This approach emphasises the importance of observation and modelling in the entire learning process (Bandura, 1977). Individuals can learn new behaviours and skills by actively studying and copying others, according to this hypothesis. Students have the chance to watch and reproduce beneficial behaviours such as attentive listening, respectful communication, and collaborative problem-solving in the context of cooperative learning.

Bandura (1977) state that reinforcement and punishment help humans learn better. Group rewards for completing a task is viewed as positive reinforcement in the context of cooperative learning. Negative reinforcement, on the other hand, may be used to discourage undesirable behaviours such as disparaging remarks or passive participation.

Overall, Social Learning Theory highlights the importance of positive role models and supportive environments in facilitating learning and behaviour change. By creating a positive and collaborative classroom environment, cooperative learning can provide opportunities for

students to observe and learn from their peers, as well as receive reinforcement for positive behaviors.

Albert Bandura's Social Learning Theory was expanded and developed further in his future work on social cognitive theory. Social cognitive theory expands on the notions of social learning theory by integrating self-efficacy, observational learning, and reciprocal determinism (Bandura, 1986). According to social cognitive theory, individuals can learn not only through direct experiences and observation of others, but also through their own cognitive processes such as attention, memory, and motivation.

In the context of cooperative learning, social cognitive theory suggests that students can learn through observing and imitating their peers, as well as through their own cognitive processes such as setting goals, monitoring progress, and self-reflection. Students can also develop a sense of self-efficacy and confidence in their own abilities through successful participation in cooperative learning activities.

Overall, social cognitive theory provides a more comprehensive understanding of how learning occurs through social interactions and individual cognitive processes. The concepts and principles of social cognitive theory can be applied to the design and implementation of effective cooperative learning activities in the EFL classroom.

1.6.4.1 Criticism of Social Learning Theory

There have been some criticisms of the social learning theory in relation to cooperative learning. One of the criticisms is that the theory places too much emphasis on the role of modeling and imitation in learning, and not enough on the active participation and collaboration that are key components of cooperative learning (Gillies & Boyle, 2010).

Another criticism is that the theory may not fully account for the importance of group dynamics and social factors in cooperative learning. For example, the theory does not address the potential impact of social identity, power dynamics, or cultural differences among group members on their learning experiences (Kreijns, Kirschner, & Jochems, 2003).

Furthermore, some researchers have argued that the social learning theory may not adequately address the cognitive processes inherent in cooperative learning, such as critical thinking and problem-solving abilities (Dillenbourg, Baker, Blaye, & O'Malley, 1996).

Despite these criticisms, the social learning theory has still been used as a theoretical framework to understand and guide the practice of cooperative learning in education.

1.6.5 Cognitive Development Theory

The theory of cognitive development, particularly Piaget's approach, emphasises the need of active exploration and problem-solving in the learning process. This theory claims, in the context of cooperative learning, that students have the ability to develop their own understanding of subjects via interaction with peers and hands-on experiences.

Piaget believed that cognitive development progresses through four stages: sensorimotor, preoperational, concrete operational, and formal operational. Each stage represents a different level of cognitive development and is characterized by distinct ways of thinking and reasoning.

In the context of cooperative learning, students can move from one stage to another through exposure to diverse perspectives and through collaboration with their peers. As students work together to solve problems and complete tasks, they can develop their cognitive abilities and move towards more sophisticated forms of reasoning and understanding.

Research has shown that cooperative learning can be particularly effective in promoting cognitive development in areas such as critical thinking, problem-solving, and

metacognition (Díaz-Maggioli, 2003). Through group discussions, peer feedback, and collaborative projects, students can gain new insights and perspectives, challenge their assumptions, and develop their cognitive abilities.

Overall, cognitive development theory highlights the importance of active, hands-on learning experiences and collaboration with peers in promoting cognitive growth and development.

1.7Cognitive Abilities in Relation to Cooperative Learning

Cooperative learning has been shown to have a positive impact on cognitive abilities, particularly in terms of critical thinking, problem-solving, and higher-order thinking skills (HOTS). According to Johnson, Johnson, and Holubec (2013), "students in cooperative learning groups engage in higher-level reasoning and are more capable of problem-solving than students who learn individually" (p. 20).

Furthermore, research has shown that cooperative learning has the potential to improve metacognitive abilities, which are essential for self-regulated learning. Karami (2017) observed, for example, that cooperative learning increased metacognitive awareness by prompting students to reflect on their learning process and engage in self-evaluation. As a result, their ability to organise, monitor, and assess their own learning was much enhanced.

Furthermore, cooperative learning has been found to enhance cognitive flexibility. As noted by Slavin (2015), "cooperative learning encourages cognitive flexibility by providing opportunities for students to work on multiple tasks, consider different perspectives, and negotiate meaning with others" (p. 123).

Overall, these findings suggest that cooperative learning can enhance cognitive abilities and promote higher-order thinking skills, metacognitive awareness, and cognitive flexibility.

1.8 Cooperative Learning in EFL Learning

Cooperative learning has been shown to be successful for learning English as a Foreign Language. (Kurt and Atay, 2019). Cooperative learning in EFL classrooms can assist students increase their language ability, create good attitudes towards learning, and improve their social skills (Li, 2020)

Group projects are an excellent method to include cooperative learning into EFL lessons. Students in a group project collaborate to achieve a job or project that needs them to utilise English. This method has been shown to encourage language growth, especially in the areas of speaking and listening, as well as to boost students' confidence in using English (Kurt and Atay, 2019).

Cooperative learning has also been found to be effective in promoting intercultural competence among EFL learners (Li, 2020). In a cooperative learning environment, students from different cultural backgrounds can work together and learn from each other, leading to greater understanding and respect for diversity.

However, successful implementation of cooperative learning in EFL classrooms requires careful consideration of the learning goals and needs of the students. Teachers must also provide clear instructions and monitor group interactions to ensure that everyone is engaged and learning (Kurt and Atay, 2019).

In conclusion, cooperative learning is a valuable instructional approach for EFL learning that can enhance language proficiency, promote positive attitudes towards learning, and improve social skills.

Group projects are one example of a successful cooperative learning structure in EFL classrooms that can promote language development and intercultural competence.

1.9Teachers and Students' Role in Cooperative Learning

In cooperative learning, both teachers and students play important roles in creating a positive and effective learning environment. According to Kagan (1994), teachers are responsible for designing and structuring cooperative learning activities, monitoring and facilitating group interactions, and providing support and guidance as needed. They also play a key role in promoting positive interdependence among group members and encouraging the use of appropriate social skills.

In addition, Slavin (1995) states that teachers must be aware of their own attitudes and beliefs towards cooperative learning, as these can have a significant impact on the success of the approach.

Individual accountability is essential for effective cooperative learning. It guarantees that each student is held accountable for their personal learning and group contributions. Students must actively participate in the learning process, interact with their classmates, and contribute to the fulfilment of group objectives.

Individual accountability, according to Johnson, Johnson, and Stanne (2000), is critical for the success of cooperative learning. They discovered in their study that students who were held accountable for their individual learning and contributions to the group outperformed pupils who were not held accountable. Students that were held accountable were also shown to be more involved in the learning process and to have a more favourable attitude towards school.

Moreover, students must also be aware of their own social skills and be willing to work collaboratively with their peers. Slavin (1995) notes that social skills such as communication, active listening, and conflict resolution are essential for successful cooperative learning.

1.10 Cooperative Learning in Algerian EFL Context

Different studies have focused on the implementation of Cooperative Learning in the Algerian EFL contexts.

The results of a study conducted by Salmi and Zard(2018) revealed that that most EFL teachers, in Al'Haj KheriL'khier Secondary School, Magra, M'sila, have insufficient comprehension of the cooperative approach and do not act in accordance with its aspects when grouping pupils.

Furthermore, it demonstrates that students do not find the atmosphere engaging when professors divide them into small groups, therefore they report that they are unable to work collaboratively.

In addition, Belmeki and Baghzou's (2022) conducted study on "Algerian EFL Secondary School Students' Attitudes Towards Using Group Investigation Cooperative Learning Model for Teaching English School Projects" at Elhachemi Bouzidi Secondary School in Khenchela, Algeria. According to the research findings, the used model significantly improved students' attitudes, project performance, motivation, target language usage, and teamwork.

Furthermore, Kebiri and Belmeki (2018) found that teachers of grammar at the English department of Tlemcen University favoured conventional classrooms, i.e. competitive

and individualistic classrooms, and that even when they attempt to form cooperative groups, they frequently overlook the true nature of cooperative learning.

1.11 Conclusion

To conclude, Cooperative learning has been widely used in EFL education as it can improve students' language learning outcomes, increase motivation, and promote social skills. This approach is supported by various theories and models, including Social Interdependence Theory, Constructivist Theory, Self-Determination Theory, and Social Learning Theory, which explain how cooperative learning can enhance students' academic and social development. To implement cooperative learning effectively, teachers need to provide appropriate methods and roles for students, and students need to have cognitive abilities such as critical thinking, problem-solving, and communication skills.

Having gained a theoretical foundation of cooperative learning in EFL education, the next chapter will focus on the methodology used to investigate its effectiveness. By understanding the methodology used to investigate the effectiveness of cooperative learning, readers can gain insight into the practical application of cooperative learning in EFL classrooms and its impact on students' language learning outcomes.

Chapter Two: Methodology

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2.1Introduction

The current chapter serves as the backbone of the research endeavor, as it delineates the methodology, research design, and data collection procedures employed in the investigation of "cooperative learning." In this regard, the chapter explicates the different steps taken to scrutinize the research topic. Specifically, the chapter commences by detailing the research design and method. Subsequently, the contextual setting of the inquiry and the characteristics of the sample population are described. Next, the chapter elucidates the data collection instruments and the procedures used during the data collection phase. Finally, the chapter highlights the data analysis methods utilized to analyze the different data types collected, while also providing an explicit interpretation of the data's reliability and validity.

2.2 research design

The selection of appropriate research design and methods is a critical component of any scientific investigation, as it guides researchers in collecting, analyzing, and interpreting data. In education, the quality of research hinges on a robust and effective research design, which is a descriptive plan detailing the ways and settings for data collection and analysis (Parahoo, 1997). The research design serves as a framework for logically linking empirical data, research questions, and conclusions (Yin, 2002), intending to provide answers to research questions.

In making decisions regarding the research design, researchers consider several factors, such as the nature of the research problem, aims and objectives, data type, sample, data collection techniques, and analysis methods (Kothari, 2019). When designing educational research, the researcher must ensure that the methods and data collection instruments are adequate and appropriate for the research problem. Ultimately, the research design should produce valid and accurate findings that address the research question(s).

The mixed methods research (MMR) design involves the collection, analysis, and integration of both quantitative and qualitative data within a single research study (Dornyei, 2007; Creswell, 2020). This approach utilizes diverse data collection instruments to address a research problem (Leavy, 2017; Ngulube, 2020), and is selected in this study for several reasons. Firstly, this model aligns with the research objectives. Secondly, it is suitable for the different types of data collected and analyzed. Thirdly, it ensures the validity and credibility of the research findings and reduces potential researcher biasness (Kothari, 2019). Moreover, researchers agree that using the MMR model provides several advantages to research, and its selection in this study is deemed appropriate.

- 1. It aims to maximize the benefits and minimize the drawbacks of quantitative and qualitative methods.
- 2. It enables the researcher(s) to gain a comprehensive understanding of the phenomenon under investigation.
- 3. It improves the validity and reliability of the research outcomes by combining and triangulating different types of data.
- 4. It yields rich and in-depth information by providing opportunities to explore different perspectives and aspects of the research problem.
- 5. It facilitates the comparison and contrast of quantitative and qualitative findings.
- 6. It allows the researcher(s) to validate and/or explain quantitative findings through qualitative data.

To achieve the research objectives and address the research questions, the researcher selected both quantitative and qualitative data collection methods to validate

research findings. The qualitative method and data collection instruments allowed for exploring different aspects of the research problem and provided a better understanding of it. The use of the qualitative method provided an opportunity for the researcher to approach the research problem from the perspective of the participants, in this case, EFL university students of English. This direct interaction between the researcher and the participants allowed for viewing the research problem from the participants' perspective, particularly since the researcher was not part of the sample studied.

The combination of both qualitative and quantitative data collection methods in this study serves to achieve the research objectives and to answer the research questions. The qualitative method and its associated data collection instruments allow the researcher to explore the various aspects of the research problem and provide a better understanding of it. By interacting directly with the participants in the study, namely EFL university students of English, the researcher can approach the research problem from their perspective, which is distinct from that of the teachers. Conversely, the quantitative method enables the researcher to investigate the research problem objectively without any bias and to generate numerical statistical data that can be replicated and generalised. However, the use of the mixed methods research model in this study necessitates a comprehensive understanding of both qualitative and quantitative methods, including their characteristics, paradigms, advantages, and limitations. The following table recapitulates a distinction between quantitative and qualitative research methods.

 Table 2.1 Comparing and Contrasting Quantitative and Qualitative Research Methods

	Quantitative	Qualitative
Definition	is an approach for testing	Qualitative research is an approach
	objective theories by examining	used to explore and understand the
	the relationship among variables.	meanings that individuals or groups
		ascribe to social or human problems.
Types of Reasoning	Deductive: from general to	Inductive: from specific to general
	specific top-down process	bottom-up process
Research Paradigm	Positivist/ postpositivist	Interpretive
Data Collection and	Quantitative numerical data	Qualitative data: words, pictures, and
Analysis	Statistical analysis (charts, tables,	objects
	and diagrams)	Qualitative analysis: manual, a
		grouping of common themes
Data Collection	Questionnaires, surveys,	Interview, focus group discussions,
Instruments		observations, documents
Sampling	Large Sample	Small Sample
Aim	Hypothesis testing and	Description and hypothesis generation
	confirmation	
researcher role	Researcher is objective	Researcher is subjective:
	Researcher uses instrument to	Researcher as data collection
	collect data	instrument
	Research is not involved in the	Researcher is involved in the study
	study	
Results	Results can be generalised	Results cannot be generalised
Advantages	Replicable	Credible
	Controlled and precise	naturalistic
	Objective interpretation and	Rich Findings
	analysis of findings.	High level of validity
	Results generalisability	
	High level of reliability	
	from Loovy 2017, Charwell & Cha	

Source: Adopted from Leavy, 2017; Creswell & Creswell, 2018

2.3 Target population

The quality of educational research is not solely dependent on the choice of research methods or instruments. Sampling is a fundamental component that plays a significant role in the research process (Cohen et al., 2018). According to experts in research methodology, a sample is a subset of a larger population (Dornyei, 2007; Cohen et al., 2018; Miyahara, 2020). In other words, a sample refers to the participants chosen for the study. In quantitative studies, sample criteria such as representativeness, suitability, and generalizability are of utmost importance (Dornyei, 2007; Miyahara, 2020). A suitable and representative sample is essential for ensuring the generalizability of research findings.

To investigate the impact of cooperative learning on the cognitive abilities and learning achievement of Master one students of English at Saida University, a case study was conducted at the Department of English Language during the 2022-2023 academic year.

The sample consisted of 47 EFL students enrolled in the didactics and literature program, who were randomly selected from the population of all Master one students studying didactics and literature at the Department of English, Saida University, and given equal opportunity to participate in the study.

At this stage of the study, the selection of participants is based on specific criteria, which makes the sample ideal. Firstly, the participants are typical EFL Algerian students. Secondly, they are studying at the Wilaya of Saida, which provides convenient access and delivery of the survey for the researcher. Lastly, it is likely that Master one students are qualified to provide valuable insights into the role of cooperative learning compared to younger students at the licence level.

2.4 Research tools

Data collection is a crucial aspect of any research, involving the gathering and measurement of information about a phenomenon or variable(s) through scientific means (Creswell, 2015). This process involves the use of one or more instruments, including questionnaires, interviews, and observations, depending on the research problem and objectives. In this study, the researcher has chosen to employ two data collection instruments, namely a questionnaire and interviews.

2.4.1 Questionnaire

Questionnaires are widely used in Applied Linguistics as a data collection instrument, particularly in quantitative and statistical research. Brown (2001) defines a questionnaire as a written instrument consisting of a set of questions or statements that are administered to respondents, who then provide their answers either by selecting options from a list provided by the researcher or by giving their own answers. Macintyre (2000) defines a questionnaire as a tool to gather opinions from a significant number of individuals anonymously. The questions are uniform, meaning that each respondent receives the same type and number of questions.

Two types of questionnaires are typically distinguished: structured and unstructured. A structured questionnaire employs closed-ended questions such as multiple-choice or yes/no questions, using a predetermined set of fixed alternatives. In contrast, an unstructured questionnaire typically contains more open-ended questions, allowing respondents to answer in their own words without being limited to predefined choices (Kothari, 2019).

According to Milne (1999), questionnaires offer three primary benefits. Firstly, the responses are collected in a standardized way, making them more objective than interviews. Secondly, questionnaires are generally a relatively quick way to collect information, although

the design, application, and analysis of them can be time-consuming. Lastly, questionnaires have the potential to collect information from a large portion of a group. However, in reality, the return rates of questionnaires are often low, but this can be improved if the questionnaire is delivered and responded to during class time. These advantages of questionnaires are essential in gathering data for research purposes and should be taken into consideration when selecting appropriate data collection methods.

In addition to its advantages mentioned by Milne (1999), a questionnaire is a costeffective method for data collection, particularly for large-scale studies that cover large
geographic areas. It is also easy to analyse, with data entry and tabulation done through
various software packages. Additionally, questionnaires are a familiar method to many
people, as nearly everyone has completed one before and it does not make respondents
apprehensive. Lastly, there are no verbal or visual cues to influence the respondent, which
reduces bias. However, questionnaires also have some disadvantages, including the possibility
that students may not wish to reveal information or believe that they will not benefit from
responding. Thus, to increase accuracy, the researcher included an interview as an additional
data collection method.

Based on these facts, the questionnaire used in this study was designed to serve its purpose. The questionnaire consists of six sections (see appendix A). The first section is related to demographic information such as age and gender. The second section aims to gather information about students' experience with cooperative learning in their English class.

The third section is related to cognitive abilities, with questions about whether students feel that participating in cooperative learning groups has helped them develop critical

thinking, problem solving, and creativity skills. The fourth section is about learning motivation, asking about the importance of improving English skills and the factors that motivate students to learn English.

The fifth section is about students' attitudes towards cooperative learning while the final section is an open-ended section where students can speak openly about their experience in cooperative learning and how it can be improved in the future especially in English classroom.

2.4.2 Interview

The use of a structured questionnaire and quantitative analysis in this research was found to have limitations, prompting the researcher to employ interviews with 4 EFL teachers in order to enhance the reliability and validity of the findings.

The interview is considered a qualitative data collection method, involving the exchange of oral-verbal stimuli and replies (Kothari, 2019). It allows for a discussion and sharing of personal experiences and perspectives between the interviewer and interviewee(s) (Cohen et al., 2018). Open-ended questions are utilized in the interview process to gather qualitative data that aligns with the research objectives, with the resulting data being in the form of quotes that are subject to qualitative interpretation and analysis.

According to Cohen et al. (2018), interviews can be categorized into three types: structured, semi-structured, and unstructured. Structured interviews involve asking predetermined questions that are fixed and cannot be altered by the interviewer during the interview. Semi-structured interviews offer more flexibility as the interviewer can make adjustments to the pre-set questions based on the interviewee's responses. Unstructured interviews provide the most open-ended approach, as the interviewer is not restricted to any

predetermined set of questions and can ask any question that may be relevant to the research objectives.

A set of nine open-ended interview questions were developed to investigate the viewpoints of EFL teachers on cooperative learning in their classrooms. The questions cover various aspects such as defining and implementing cooperative learning, its advantages and challenges, methods to ensure equal participation, assessment techniques, and recommendations for enhancement. These questions are designed to elicit detailed responses from the participants, enabling them to share their experiences and opinions. As each question has a specific objective as it is described in the following:

1. How do you define cooperative learning, and how do you implement it in your EFL classroom?

The objective of this question is to understand the interviewee's definition and implementation of cooperative learning in their EFL classroom. By asking this question, the researcher seeks to gain insight into the interviewee's understanding and interpretation of cooperative learning as a teaching method and how they apply it in their classroom. This will help to identify the specific cooperative learning strategies and techniques used by the interviewee in their classroom.

2. How do you think cooperative learning can enhance EFL learning compared to other teaching methods?

The aim of this question is to explore the interviewee's perspective on the potential benefits of cooperative learning compared to other teaching methods in enhancing EFL learning. The researcher aims to gain insight into the interviewee's understanding of how cooperative learning can be more effective than other teaching methods in improving EFL students' learning outcomes.

3. How do you ensure that all students participate equally in cooperative learning activities?

This question aims to understand how the interviewee ensures equal participation in cooperative learning activities. The researcher seeks to identify the specific strategies and techniques used by the interviewee to encourage all students to participate actively in group work and how they ensure that all students have equal opportunities to contribute to the learning process.

4. How can you encourage shy or introverted students to participate in cooperative learning activities?

this question's objective is exploring strategies for encouraging shy or introverted students to participate in cooperative learning activities. The researcher seeks to gain insight into the interviewee's experience and understanding of how to support and motivate students who may be hesitant to participate in group work.

5. How do you address potential challenges or obstacles that may arise when implementing cooperative learning in EFL classroom?

The point of this question is to identify potential challenges or obstacles that may arise when implementing cooperative learning in an EFL classroom and how to address them. The researcher aims to gain insight into the interviewee's experience and understanding of common challenges and how they overcome them to ensure successful implementation of cooperative learning.

6. What do you see as benefits of cooperative learning for EFL students' cognitive abilities and learning achievement?

This question seeks to understand the interviewee's perspective on the benefits of cooperative learning for EFL students' cognitive abilities and learning achievement. The researcher aims to gain insight into the interviewee's experience and understanding of how

cooperative learning can enhance EFL students' critical thinking, problem-solving, and language skills.

7. How do you assess students' learning achievement in cooperative learning activities, and what tools or methods do you use to measure their cognitive abilities?

The goal of this question is to explore the interviewee's approach to assessing students' learning achievement in cooperative learning activities and the tools and methods they use to measure their cognitive abilities. The researcher aims to gain insight into the interviewee's understanding of how to effectively evaluate students' learning outcomes in cooperative learning activities.

8. How do you think cooperative learning can be improved and better integrated into EFL instruction? What suggestions do you have for teachers who are new to cooperative learning?

The reason for asking this question is to identify ways to improve and better integrate cooperative learning into EFL instruction, as well as suggestions for teachers who are new to this teaching method. The researcher seeks to gain insight into the interviewee's experience and understanding of best practices for implementing cooperative learning and how to support other teachers in incorporating this teaching method in their EFL classroom.

9. In your experience, how does cooperative learning compare to other teaching strategies in terms of developing EFL students' cognitive abilities and learning achievement?

The target of this question is to compare cooperative learning with other teaching strategies in terms of developing EFL students' cognitive abilities and learning achievement. The researcher seeks to gain insight into the interviewee's perspective on the relative strengths and weaknesses of cooperative learning compared to other teaching methods in improving EFL students' learning outcomes.

2.5 Data Collection Procedures

According to Tomal (2003), action research is a cyclical process of inquiry, exploration, identification, and problem-solving that adheres to established rules and procedures. Data collection involves several procedures, including a pilot study to test the instruments' suitability for the Algerian context. The present study employs both quantitative and qualitative data collection methods, using a questionnaire to investigate the role of cooperative learning in the cognitive development and learning achievement of EFL Master one students at Saida University. Qualitative data analysis of open-ended questions complements the quantitative findings. In this study, the literature review is not only conducted at the beginning but also throughout the research process to develop a comprehensive understanding of relevant theories.

2.5.1 Administration of the questionnaire

Prior to data collection, a brief explanation was provided to participants about the nature of the study and its significance in the educational system, particularly in the context of learning English as a foreign language.

To ensure reliability, a pilot study was conducted by the researcher to examine the clarity and appropriateness of the questionnaire for the targeted population and study objectives. The questionnaire was then examined by the supervisor and modified by adding, removing, or modifying items.

Participants were allowed to provide additional feedback on the completion of the questionnaire or the study itself, while ensuring the anonymity of responses. Participants were reminded to answer each question individually, and after completing the questionnaires, they were returned to the researcher for analysis.

2.5.2 Administration of Interview

On behalf of the researcher, the supervisor conducted semi-structured interviews with 4 participants in an informal manner following ethical guidelines. The interviewer began by ensuring the confidentiality of the data collection process. To ensure accuracy, the points emerging from the interviews were verified with the interviewees by reading the important points taken by the researcher before the interviews ended. The participants were given the opportunity to discuss any important issues related to the interview topic at the end of each interview, and they were invited to read the interview transcripts for any corrections or additions. The researcher followed ethical guidelines to ensure the confidentiality and privacy of the participants throughout the interview process.

2.6 Data Analysis

The data collected from the questionnaire were processed manually in the form of frequency tabulation and percentages. Similarly, the data obtained from the interview were also analysed manually and included in the discussion to answer the research questions.

2.6.1 Questionnaire Analysis

The present study did not incorporate correlation analysis for independent variables, such as gender and age. Furthermore, individual questionnaire analyses were not linked to specific interviewees, as the interviews were conducted with EFL teachers in general.

In order to analyse the results of the study, software was not utilized for calculating frequency tabulations and percentages. Instead, a simple mathematical equation was used, whereby the participants represented 100% (50 participants). The calculations were performed manually by multiplying the number of possible answers by 100% and then dividing by the number of participants.

2.6.2 Interview Analysis

According to Basit (2003), data analysis in qualitative research involves a dynamic and creative process of thinking and theorizing. Unlike quantitative research that presents findings in the form of numbers, qualitative research presents data in the form of utterances or sentences extracted from interview transcripts. In this study, the findings were reported using illustrative quotes from individual interviews. This approach allows for a more nuanced and detailed presentation of the participants' perspectives and experiences.

2.7 Conclusion

This chapter provides an overview of the study objectives, research design, participants, instruments utilized (i.e., questionnaire and interview), data collection procedure, and data analysis approach.

Therefore, the following chapter, which centers on the data analysis and interpretation of the results obtained from the questionnaire and the interview conducted with EFL learners, would shed light on whether the theories related to the role of cooperative learning are consistent with the Algerian educational context, specifically at the English Department of Saida University.

Chapter Three: Results, Recommendations and Suggestions

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3.1 Introduction

The chapter presents the analysis and interpretation of data gathered from three data collection instruments: the questionnaire and the interview. The quantitative data is first analysed and presented in tables and figures, while the qualitative data is transcribed verbatim and analysed qualitatively. The chapter then focuses on discussing and interpreting the main findings of the research. Furthermore, the researcher provides recommendations to enhance cooperative learning in developing EFL students' cognitive abilities and learning achievement. Finally, it concludes by discussing the limitations of the research work.

3.2 Results of the Questionnaire

The questionnaire comprises six sections. The first section pertains to demographic information, specifically age and gender. The second section aims to obtain data on students' prior involvement with cooperative learning in their English class. It includes questions regarding their past participation, experience, and perceptions of the advantages of cooperative learning in EFL classes. For those who have not previously participated, the section includes inquiries about their interest in future participation.

3.2.1 demographic information

In this research work, the questionnaire was addressed to first year master EFL learners from both specialities (didactics and literature), and 47 students answered it. The results of these statements are displayed in the following table 3.1

Table 3.1: Participants' Age

Options	Number	%
18-25	37	79%
26-35	6	13%
36-45	3	6%
46 or older	1	2%
Total	47	100%

The provided data illustrates the distribution of participants across different age groups. Among the 47 respondents, the majority fall into the 18-25 age group, with a total of 37 individuals. The 26-35 age group includes six respondents, while only three individuals belong to the 36-45 age group. The smallest age group is that of 46 years or older, with only one respondent falling into this category. These findings suggest that the research sample is predominantly composed of young adults, with a relatively smaller representation of middle-aged and older individuals.

Table 3.2: Gender Distribution

Options	Number	%
Male	15	32%
Female	32	68%
Total	47	100%

The given data presents the distribution of participants based on their gender. The total sample size consists of 47 individuals, out of which 32 are female, while 15 are male. Thus, a majority of the respondents identify as female, with approximately two-thirds of the sample size being female participants. In contrast, male respondents constitute a relatively smaller proportion of the research sample.

3.2.2 Learning Motivation

Participants of the study were asked the following question:" How important is it for you to improve your English skills? », the results are as follows:

Table 3.3: Participants' Perceptions of the Importance of Improving English Language Proficiency.

Options	Number	%
Not important at all	0	0%
Somewhat important	9	19%
Very important	38	81%
Total	47	100%

Table 3.3 revealed that out of the 47 individuals who responded, the majority, comprising 38 individuals, indicated that improving their English skills is "very important" to them. Nine participants responded that it was "somewhat important" to them. Surprisingly, none of the respondents chose the option "Not important at all," suggesting that all participants see some degree of the value in improving their English language proficiency.

Participants were asked What motivated them learn English and their results are illustrated in the following graph



Figure 3.1 : Factors Driving English Language Learning Motivation

The provided data presents the responses of participants to the question, "What motivates you to learn English?" The survey included four options, and participants could select one or more choices. Out of the 47 respondents, the most popular response was "personal interest," with 14 individuals selecting this option. The second most commonly chosen response was "to communicate with English-speaking people," with 12 individuals selecting it. Meanwhile, 11 participants chose "required for school or work," and 10 individuals selected "to travel to English-speaking countries" as their primary motivation for learning English. These findings suggest that the motivation to learn English is multifaceted

and can stem from personal interests, social and cultural factors, as well as practical considerations related to work and education.

3.2.3 Cooperative Learning Experience

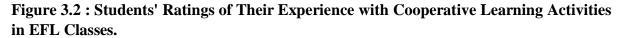
Participants were asked whether they had ever participated in a cooperative learning activity in their class, and their responses are shown in the following table:

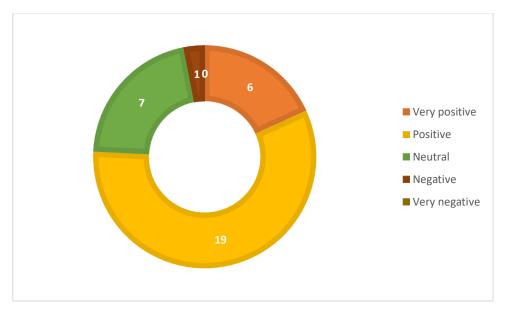
Table 3.4: Participation in Cooperative Learning Activities among EFL Students.

Options	Number	%
Yes	33	70%
No	14	30%
Total	47	100%

The given data represents the responses of participants to the question, "Have you ever participated in a cooperative learning activity in your class?" Out of the total 47 respondents, 33 students reported that they had participated in cooperative learning activities in their classes, while the rest answered no. These results indicate that a majority of the participants have prior experience with cooperative learning activities, suggesting that such teaching methods are not uncommon in English language classrooms.

Because 14 students stated that they didn't have prior experience with cooperative learning activities, only 33 students answered the next question. As it seen in the Figure 3.2, the majority, comprising 19 individuals, rated their experience as "positive," while six students reported a "very positive" experience. Seven participants reported a "neutral" experience, while only one participant rated their experience as "negative." Notably, none of the respondents rated their experience as "very negative." These findings suggest that the majority of students who participated in cooperative learning activities had a positive experience. Such positive experiences can promote greater engagement, interaction, and motivation among learners and underscore the potential benefits of using cooperative learning activities to promote effective language learning in EFL classrooms.





In the following question, students were asked "How do you feel about working in a group to learn English?", their answers are represented in the following table:

Table 3.5: Participants Feedback About Working in A Group to Learn English

Options	Number	%
I enjoy it and find it helpful	16	49%
I don't mind, but it's not always helpful	10	30%
I don't like it and don't find it helpful	4	12%
I have not done enough group work to form an opinion	3	9%
Total	33	100%

Out of the total 33 students who had participated in cooperative learning activities, 16 students responded positively, stating that they enjoyed group work and found it helpful. Ten participants expressed a neutral attitude, stating that they did not mind group work but did not always find it helpful. Four students reported a negative attitude towards group work and found it unhelpful, while three participants indicated that they had not done enough group work to form an opinion.

The present data shows the responses of 33 participants to the question "In your opinion, what are the benefits of cooperative learning in EFL classes?" Out of the total respondents, 14 participants highlighted the benefits of exposure to diverse perspectives and ideas. Furthermore, 10 students recognized improved motivation and engagement as an advantage of cooperative learning. Additionally, nine students mentioned increased opportunities for speaking and listening practice as another benefit. The results suggest that EFL students perceive cooperative learning as an effective approach to enhancing their language skills and promoting their engagement and motivation.

Table 3.6 : Participants Feedback about the advantages of cooperative learning in EFL classroom

Options	Number	0/0
Improved motivation and	10	30%
engagement		
Exposure to different	14	43%
perspectives and ideas		
Increased opportunities for	9	27%
speaking and listening practice		
Total	33	100%

Out of 47 participants, 14 of them who did not participate in cooperative learning had the chance to report their feedback about their future participation. As it is shown in table 3.7, reports the responses of 14 participants to the question "If no, would you like to participate in cooperative learning activities in your English class in the future?" Out of the total respondents, 10 participants expressed their interest in future participation in cooperative learning activities, while four participants reported that they would not like to participate. The findings suggest that a significant proportion of EFL students are open to and interested in participating in cooperative learning activities in their English class

Table 3.7 :Students' Interest in Participating in Cooperative Learning Activities in Future English Classes

Options	Number	%
Yes	10	71%
No	4	29%

Total 14 100%

3.2.4 Attitudes towards cooperative learning

In the questionnaire, a section focuses on understanding students' attitude towards cooperative learning. Hence, participants were asked the question, "Do you think that cooperative learning activities would help you improve your English language skills?" as it is seen in Figure 3.3, out of the 47 respondents, 38 students agreed or strongly agreed that cooperative learning activities would be beneficial in enhancing their English language skills. Only 3 students disagreed, and none strongly disagreed with the statement. Meanwhile, 6 students remained neutral. Overall, the majority of the participants perceived cooperative learning activities as a helpful tool in improving their English language abilities.

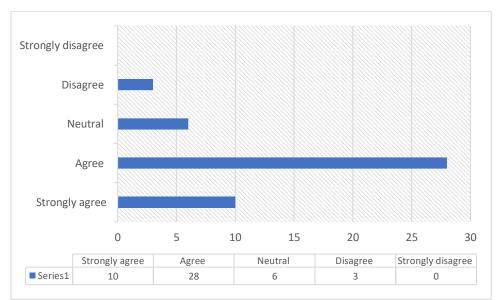
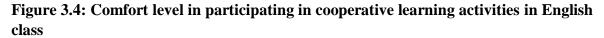
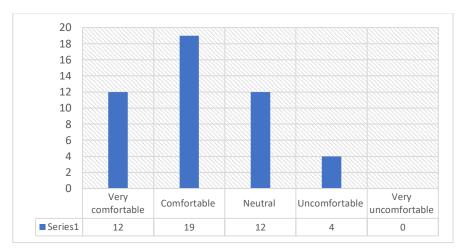


Figure 3.3 : Students' Attitude Towards Cooperative Learning

The participants were asked to rate their level of comfort when participating in cooperative learning activities in their English class. Out of the 47 participants, 12 reported feeling very comfortable, 19 reported feeling comfortable, 12 reported feeling neutral, and 4 reported feeling uncomfortable. None of the participants reported feeling very uncomfortable. These results suggest that the majority of the participants feel comfortable when participating in cooperative learning activities in their English class. (See Figure 3.4)





The data provided in table 3.8 shows the responses of 47 participants to the question, "Do you think cooperative learning activities would make your English class more enjoyable?" The majority of the participants, 39 out of 47, agreed or strongly agreed that cooperative learning activities would make their English class more enjoyable. Specifically, 12 participants strongly agreed and 27 participants agreed with the statement. Only a small number of participants, 2 out of 47, disagreed with the statement while 6 participants remained neutral. Overall, the data suggests that cooperative learning activities have the potential to enhance the enjoyment of the English class.

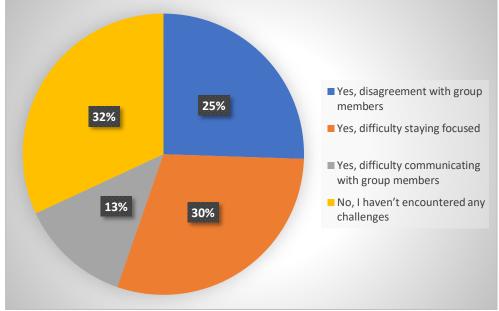
Table 3.8: Students' Feedback About the Effect of Cooperative Learning in EFL Classroom

Options	Number	%
Strongly agree	12	26%
Agree	27	57%
Neutral	6	13%
Disagree	2	4%
Strongly disagree	0	0%
Total	47	100%

The participants were asked whether they have encountered any challenges while working in a group to learn English. Of the 47 students, 12 responded that they had

experienced disagreements with group members, 14 reported difficulties staying focused, and 6 found it challenging to communicate with group members. On the other hand, 15 participants reported that they hadn't encountered any challenges. The data suggests that while some students may face difficulties with cooperative learning activities, the majority do not encounter significant challenges. Results are shown in the following graph:

Figure 3.5 : Students' feedback about the challenges encountered while working in a group to learn English



3.2.5 Cognitive Abilities

In this section of the questionnaire, students were asked questions about their cognitive abilities and how can cooperative learning can improve it. The participants were asked whether they felt that participating in cooperative learning groups had helped them to develop their critical thinking skills. The majority of the participants (32 out of 47) agreed or strongly agreed that cooperative learning activities had helped them to develop their critical thinking skills. Among them, 5 strongly agreed, while 27 agreed. Ten participants remained neutral, while five participants disagreed or strongly disagreed that participating in cooperative learning had helped them to develop their critical thinking skills. Therefore, the

results suggest that many participants perceived cooperative learning activities to be beneficial for the development of their critical thinking skills.

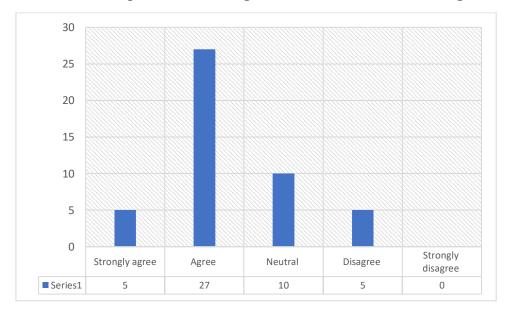


Figure 3.6: Effects of Cooperative Learning on Students' Critical Thinking Skills

Upon asking the students about their opinion on whether participating in cooperative learning groups has helped them to develop their problem-solving skills, the majority of the respondents agreed or strongly agreed (see Figure 3.7). Specifically, 29 out of 47 students believed that cooperative learning activities have helped them in developing problem-solving skills. However, 4 students disagreed with the statement, and 14 students remained neutral. The results indicate that cooperative learning activities have a positive impact on the development of problem-solving skills among EFL students.

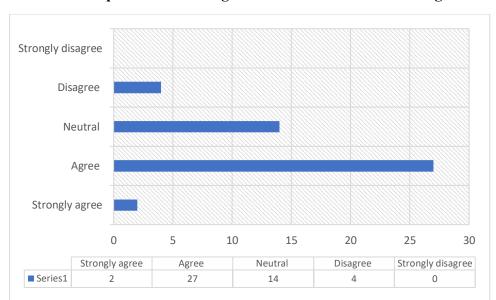


Figure 3.7: Effects Of Cooperative Learning on Students' Problems Solving Skills

In response to the question "Do you feel that participating in cooperative learning groups has helped you to develop your creativity?" students provided the following feedback: 6 students strongly agreed, 20 students agreed, 11 students were neutral, 9 students disagreed, and 1 student strongly disagreed. This indicates that a majority of the students (26 out of 47) feel that participating in cooperative learning groups has helped them to develop their creativity, while a minority (10 out of 47) feel that it has not. The neutral responses may suggest that some students were unsure of the impact of cooperative learning on their creativity. Results are shown in the following graph:

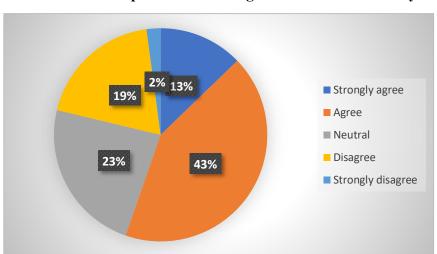


Figure 3.8: Effects of Cooperative Learning on Students' Creativity

3.3 Results of the Interview

A series of nine open-ended interview inquiries were created to explore the perceptions of EFL educators regarding cooperative learning implementation in their classes. The questions encompass diverse facets, including defining and executing cooperative learning, its benefits and hurdles, ways to ensure equitable participation, evaluation methodologies, and suggestions for improvement. The objective of these questions is to encourage participants to provide comprehensive answers, enabling them to share their insights and experiences. Three EFL teachers participated in this interview and their feedback is as follows:

10. Question 01: How do you define cooperative learning, and how do you implement it in your EFL classroom? Participant 01:

Participant 01:

"In simple words, cooperative learning is working in team during the class. The students form groups to solve certain activities which need the interaction and the exchange of ideas. As a teacher of Oral expression, the cooperative learning represents a 50% out of my lectures by including to my students activities of debates, role playing, the discussion of topics and the educative games."

Participant 02:

"Cooperative learning is defined as group work on which students are permitted to work collaboratively inside the classroom. It is implemented via forming students into groups of 3 or 4 and sometimes peer work to do a particular task, and thus, help each other and exchange ideas."

Participant 03:

"Cooperative learning is an instructional method in which students work in small groups to accomplish a common learning goal with the guidance of their teacher. In the classroom, a

cooperative learning lesson involves students working in small groups to accomplish a learning task. The task is assigned by the teacher with clear directions. Students then work on the task together with defined roles (i.e. reporter, spokesperson, researcher, recorder). Teachers who are effective at evaluating the group together as one understand that each person in the group has a "shared" responsibility. When the cooperative learning group completes the learning task, the teacher evaluates the results. That evaluation needs to include some type of format to determine if the student(s) accomplished their learning goals (i.e. rubric). If each student sitting in the group isn't held responsible for helping complete their portion of the learning task, then it isn't truly cooperative learning."

Participant 04:

"Cooperative learning is a method in which learners collaborate and work in small groups to attain a common learning goal under the guidance of their teacher. This method can be applied through suiting learning activities to small groups. For example, a teacher wanted his students to achieve the goal of speaking fluently through performing a roleplay, so he would first divide them into small groups and ask them to write a script together before doing a rehearsal that paves the way for the last performance on the stage."

The participants answers show their understanding of cooperative learning in EFL classroom. They distinguish the impact of small group work and peer collaboration, as well as the role of the teacher in providing clear directions and guidance. The participants also emphasize the need for individual accountability and evaluation to ensure that students are achieving their learning goals.

11. Question 02: How do you think cooperative learning can enhance EFL learning compared to other teaching methods?

Participant 01:

"The cooperative learning can promote the EFL learning by boosting the motivation degree between the students. Also, it is an opportunity for the students to practise the language with each other. As they can learn from their mistakes."

Participant 02:

"Cooperative learning is so effective because students learn from each other and review each other. It, therefore, enhances the learning process to a large extent."

Participant 03:

"Cooperative learning contributes to students' success more by promoting language skills. While many different cooperative learning methods are being advocated and used in education, educators have very little guidance as to which specific cooperative learning methods will be most effective in their situation and how to implement them in the classroom."

Participant 04:

"This method can enhance EFL learning compared with other methods by reducing the effect of the affective filters such as lack of motivation, lack of self confidence, anxiety, embarrassment, shyness and so on."

"All participants recognize the benefits of cooperative learning in enhancing EFL learning compared to other teaching methods. Participant 01 emphasizes that cooperative learning can increase motivation and provide opportunities for students to practice the language with each other. Participant 02 highlights the effectiveness of learning from peers and reviewing each other's work. Participant 03 states that cooperative learning can promote language skills and acknowledges the need for guidance on specific methods and their implementation. Participant 04 highlights the potential of cooperative learning to reduce affective filters that hinder language learning, such as lack of motivation, confidence, anxiety, and shyness. Overall, the responses suggest that cooperative learning is viewed as a valuable

teaching method that can enhance EFL learning by promoting peer interaction, motivation, and language skills, while reducing affective barriers."

12. Question 03: How do you ensure that all students participate equally in cooperative learning activities?

Participant 01:

"I orientate the students that they all must join in. They divide the work on all the group members. I also give the word to each student to answer and clarify his/her point in order to confirm that it was a teamwork indeed."

Participant 02:

"It is the teacher's role to supervise the students while working. And it is the teacher's duty to distribute and divide the assignment between the group members and then s/he corrects each student's."

Participant 03:

"To ensure that each student has participated in the group work, I will divide the work between them in an equal way and use a rubric for each group where I write the name of each student and the work assigned to."

Participant 04:

"To be certain that all students participate in cooperative activities, teachers should control and inspect them after a task has been given. He would move from a small group to another, by interacting with each group element."

All four participants provided different strategies to ensure equal participation in cooperative learning activities. Participant 01 suggests that it is important to orientate the students to the importance of joining in, divide the work equally among group members, and give each student the opportunity to express their ideas. Participant 02 highlights the teacher's role in supervising the students while working and dividing the assignment between group

members. Participant 03 proposes dividing the work between students equally and using a rubric to monitor each student's work. Finally, Participant 04 stresses the importance of teachers moving around the classroom and interacting with each group member to ensure everyone's participation.

Overall, it is evident that all participants agree that equal participation is crucial for the success of cooperative learning activities. However, they provide different strategies for achieving this goal, including setting expectations, teacher supervision, equal division of tasks, and monitoring with rubrics.

13. Question 04: How can you encourage shy or introverted students to participate in cooperative learning activities?

Participant 01:

"Personally, I'm not the kind of teachers who embarrass the shy students during learning even if they make mistakes. I try to create an amusing atmosphere during the class to the students in order to feel at ease when learning. I even sometimes participate with them especially in the discussion of topics; I help them with ideas and they develop them on their own. As a consequence, they participate without hesitation."

Participant 02:

"Introverted students do not find any hindrance in cooperative learning. On the contrary, they prefer working collaboratively."

Participant 03:

"To ensure that shy students can participate in cooperative learning activities, I have to create a safe atmosphere for them through letting them to select their pairs. I start with a small group and give them the opportunity to read about the selected topics at home."

Participant 04:

"These kinds of students are always involved in participating when the the teacher is open minded and has a sense of humor, so these students would find a comfortable atmosphere and sociable teacher that allow him to interact in EFL class."

Participant 01 and 04 emphasized creating a comfortable and positive atmosphere in the classroom to encourage shy or introverted students to participate in cooperative learning activities. Participant 01 also highlighted the importance of not embarrassing students during learning and providing assistance in generating ideas. Participant 03 suggested giving shy students the opportunity to select their pairs and prepare for the task in advance. On the other hand, Participant 02 stated that introverted students generally prefer working collaboratively and did not suggest any specific strategies to encourage their participation. Overall, the participants suggest strategies such as creating a supportive environment, allowing students to choose their partners, and giving them time to prepare before participating in group work to encourage shy or introverted students to participate.

14. Question 05: How do you address potential challenges or obstacles that may arise when implementing cooperative learning in EFL classroom? Participant 01:

"When some students are not serious and fully engaged within the group, it can be an obstacle to reach the objective of cooperative learning. Also, the selfishness of some students can affect negatively the aspect of teamwork. These are the main challenges which can be confronted in the group work."

Participant 02

"I personally do not find greater challenges or obstacles but only with few lazy ones. And I do always impose on them to work on something and then I correct them."

Participant 03:

"Among the challenges that face me:

- 1. Some groups of students do not effectively work cooperatively. They distract from the group, and their individual work can make the class noisy.
- 2. The classroom management is difficult to monitor with large size classes.
- 3. Additionally, the teacher faces challenges to prepare for teaching materials and to design activities with humble teaching materials.
- 4. The teacher has to train the students to adapt to cooperative learning situations and to raise student's awareness to take part in their group activities."

Participant 04:

"obstacles that may arise when cooperative learning are being implemented in EFL classes, embarrassment towards the opposite gender."

Overall, the participants identified various challenges or obstacles that may arise when implementing cooperative learning in EFL classroom. Participant 01 mentioned the potential challenge of some students not being serious or fully engaged in group work, as well as the obstacle of selfishness. Participant 02 acknowledged lazy students as a challenge, while Participant 03 identified four main challenges: ineffective group work, classroom management issues with large class sizes, difficulty in preparing teaching materials, and the need to train students to adapt to cooperative learning situations. Participant 04 identified embarrassment towards the opposite gender as a specific obstacle.

It is important to note that some participants did not acknowledge any significant challenges or obstacles, while others provided more detailed and specific challenges. These responses indicate that teachers may face various obstacles when implementing cooperative learning in EFL classrooms, and that teachers should be aware of these potential challenges and plan accordingly to address them.

15. Question 06: What do you see as benefits of cooperative learning for EFL students' cognitive abilities and learning achievement?

Participant 01:

"They are already mentioned. First of all, it increases the student's motivation. Thanks to the exchange of ideas, it can boost the student's creativity. Also, the mutual language practice in the group helps the student to master the language easily."

Participant 02:

"Students learn from each other, exchange thoughts, enjoy learning and they work at ease.

Most importantly, the results are more beneficial than individual work."

Participant 03:

"Cooperative learning has proved its effectiveness as a teaching strategy with all the benefits it provides to both the teachers and learners. Research has proved its relevance to the ordinary classroom. Learners have opportunities to frequently encounter the material under study through various venues and modes of delivery. Learners have opportunities to use authentic language in order to perform communicative and referential tasks, even when the focus of the lesson is on language rules and mechanics rather than the development of language skills.

It is beneficial for tasks measuring visual perception, problem-solving, and rule-based thinking."

Participant 04:

"Benefits which are yielded through the implementation of this method are of shared knowledge, reinforced interpersonal relations, peer- correction and evaluation, self-improvement of knowledge, and so."

In response to the question about the benefits of cooperative learning for EFL students, participants highlighted the positive impact it can have on student motivation, creativity, and

language proficiency. They also emphasized the opportunities for students to learn from one another, enjoy the learning process, and achieve better results than they would through individual work. One participant cited research that supports the effectiveness of cooperative learning, particularly in providing learners with frequent opportunities to encounter and use language authentically. Additionally, participants noted that cooperative learning can improve cognitive abilities such as visual perception, problem-solving, and rule-based thinking. Overall, the responses suggest that cooperative learning can be a valuable teaching strategy for EFL classrooms, with benefits for both learners and teachers.

16. Question 07: How do you assess students' learning achievement in cooperative learning activities, and what tools or methods do you use to measure their cognitive abilities?

Participant 01:

"I asses them through direct presentations."

Participant 02:

"Sometimes, I assess each member and other times I assess the group to instil reviewing and revision among the students."

Participant 03:

"Cooperative learning method could be applied to enhance students' ability to analyze, synthesize. it can also increase their intelligence in decision making and reflecting on different subjects. The teacher has to take into account the six board categories or levels of thinking: knowledge comprehension and application, analysis and synthesis."

Participant 04:

"Assessment in this kind of learning would be performed by different kinds of assessment such as diagnostic, formative and summative. Therefore, each element in the small group in the cooperative learning will be given a part of the whole task that is performed by the meant group, then it will be evaluated and assessed over time. Besides, tools which are used for

assessment can vary from written product, procedural activities, conceptual knowledge through different activities such as matching, filling gaps, completing diagrams, completing sentences, labeling diagrams or graphs and so on."

Participants 01 and 02 have provided brief responses and haven't given specific tools or methods they use to measure cognitive abilities. Participant 03 highlights the potential of cooperative learning to enhance students' cognitive abilities, but doesn't mention specific assessment tools or methods. Participant 04 provides a more detailed response, mentioning diagnostic, formative, and summative assessments, as well as various tools such as written products and procedural activities. However, it is not clear how these assessments are specifically used to measure students' cognitive abilities in cooperative learning activities. Overall, the responses suggest a need for more detailed and specific information on how cognitive abilities are assessed in cooperative learning activities.

17. Question 08: How do you think cooperative learning can be improved and better integrated into EFL instruction? What suggestions do you have for teachers who are new to cooperative learning?

Participant 01:

"Honestly, the cooperative learning doesn't work out with all the modules. If the module needs require the team work, that's fine, it can be implemented by the teacher. If not, the teacher keeps stuck to the individual work because it still can measure the real level of the student."

Participant 02:

"I advise teachers to implement it, mainly in writing. It improves students' cognitive and socio-affective skills."

Participant 03:

"Suggestions:

To ensure good results, novice teachers should take into account the following points:

Establish roles for each student

Establish the group goals

Consider assessment (assessing cognitive skills and academic achievements)

Build trust between the members of the group."

Participant 04:

"I think cooperative learning can be improved by raising awareness among EFL teachers on how to be used effectively. I suggest that EFL teachers would read extensively about this method and try to apply it with careful practicality."

In response to Question 08, the participants provided various suggestions to improve and integrate cooperative learning into EFL instruction. Participant 01 mentioned that cooperative learning should only be implemented when the module requires teamwork, otherwise individual work is sufficient for measuring the student's level. Participant 02 suggested implementing cooperative learning in writing, as it can enhance cognitive and socio-affective skills. Participant 03 provided specific suggestions for novice teachers, including establishing roles and goals for each student, considering assessment, and building trust between group members. Finally, Participant 04 recommended that EFL teachers read extensively about cooperative learning and apply it with careful practicality to effectively use this method.

These responses demonstrate the need for careful consideration of the module, subject, and student's needs when implementing cooperative learning, as well as the importance of establishing clear roles, goals, and trust between group members. Moreover, the responses highlight the value of teacher education and training to effectively integrate cooperative learning into EFL instruction.

18. Question 09: In your experience, how does cooperative learning compare to other teaching strategies in terms of developing EFL students' cognitive abilities and learning achievement?

Participant 01:

"It was already answered above."

Participant 02:

"Group work develops the students' cognitive abilities and their critical learning to a large extent."

Participant 03:

"Compared to other teaching strategies, cooperative learning can foster thinking skills and promote higher thinking order."

Participant 04:

"Cooperative learning method has certain advantages compared with other learning methods, so we can not idolize it since each learning method has its own advantages and disadvantages and each one can be used suitably in certain learning situations in terms of goals and performance."

The participants were asked about their experience with cooperative learning compared to other teaching strategies in terms of developing EFL students' cognitive abilities and learning achievement. Participant 01 did not provide a clear answer, while Participant 02 stated that group work is effective in developing students' cognitive abilities and critical learning. Participant 03 indicated that cooperative learning is superior to other teaching strategies in fostering thinking skills and promoting higher-order thinking. Participant 04 acknowledged that cooperative learning has advantages over other methods, but noted that each learning method has its own strengths and weaknesses and should be used appropriately depending on the learning goals and context.

Overall, the responses suggest that cooperative learning is viewed positively as a teaching strategy for developing EFL students' cognitive abilities and learning achievement. Participant 03 specifically highlighted the advantages of cooperative learning in promoting higher-order thinking skills, which is consistent with previous research on the topic. However, it is important to note that cooperative learning may not be suitable for all learning situations and should be used in conjunction with other teaching strategies depending on the learning goals and context.

3.4 Discussion of The Results

Based on the findings, it can be suggested that the use of cooperative learning strategies has the potential to increase EFL students' motivation and engagement in the language learning process. The majority of participants who took part in cooperative learning activities reported positive experiences that promoted greater engagement, interaction, and motivation among learners. Moreover, the data showed that a significant number of participants who did not have the opportunity to participate in cooperative learning activities recognized the need for such methods to promote a more collaborative and interactive learning environment.

These results support the first hypothesis that the use of cooperative learning strategies can increase EFL students' motivation and engagement in language learning. This means that the first hypothesis is confirmed.

Moreover, the results of the study provide some evidence in support of the second hypothesis. In general, the data suggests that EFL students perceive cooperative learning as an effective approach to enhancing their language skills, with the majority of respondents highlighting benefits such as exposure to diverse perspectives and ideas, improved motivation and engagement, and increased opportunities for speaking and listening practice.

Hence, the second hypothesis "The implementation of cooperative learning strategies will result in a significant improvement in EFL students' language skills" is confirmed .

Finally, the third hypothesis stated that "EFL teachers who effectively integrate cooperative learning into their curriculum will see a greater improvement in their students' language learning compared to those who do not use cooperative learning strategies."

According to the results of the interview, the participants demonstrated a clear understanding of cooperative learning and its implementation in the EFL classroom. They emphasized the importance of small group work and peer collaboration, as well as the teacher's role in providing clear directions and guidance. The participants also recognized the need for individual accountability and evaluation to ensure students achieve their learning goals. All participants identified the benefits of cooperative learning in enhancing EFL learning compared to other teaching methods. For example, cooperative learning was found to increase motivation, provide opportunities for students to practice the language with each other, promote language skills, and reduce affective barriers. Additionally, the participants provided various strategies for achieving equal participation, such as setting expectations, teacher supervision, equal division of tasks, and monitoring with rubrics. However, they also identified challenges that may arise when implementing cooperative learning in the EFL classroom, such as ineffective group work, classroom management issues, difficulty in preparing teaching materials, and the need to train students to adapt to cooperative learning situations. Overall, cooperative learning was viewed positively as a valuable teaching strategy for EFL classrooms, with benefits for both learners and teachers, although it may not be suitable for all learning situations and should be used in conjunction with other teaching strategies depending on the learning goals and context.

Hence, the third hypothesis is also confirmed. The responses provided by the EFL teachers support the hypothesis that EFL teachers who effectively integrate cooperative

learning into their curriculum are likely to see a greater improvement in their students' language learning compared to those who do not use cooperative learning strategies.

EFL teachers recognized the benefits of cooperative learning in promoting peer interaction, motivation, and language skills, while reducing affective barriers, and emphasized the importance of individual accountability and evaluation. They also identified challenges and obstacles that may arise when implementing cooperative learning, but overall, the responses suggest that cooperative learning can be a valuable teaching strategy for EFL classrooms, with benefits for both learners and teachers.

3.5 Recommendation and Suggestions

In the last part of the questionnaire, students were asked to provide suggestions for improving the effectiveness of cooperative learning groups in an English language class.

- Teachers should not force students to work in groups, but rather create a different group dynamic each time by joining one of the groups themselves. This can help to break down barriers between teacher and student, as well as between the students themselves.
- When selecting members for a cooperative learning group, teachers should carefully
 consider the students' levels and include members with different levels in order to
 promote support and critical thinking. Time management should also be considered
 when assigning group work.
- Cooperative learning is an effective way to improve language skills, but students should take it seriously and be open to the ideas of others.

- Cooperative learning can help to develop problem-solving skills, teach new skills, and help students understand and use new strategies.
- For cooperative learning groups to be effective, members should be friendly with each other and have a willingness to share information and work together.
- Teachers should incorporate fun and engaging activities into cooperative learning to prevent boredom and increase student engagement.
- Students have different preferences and some may not enjoy cooperative learning.

 Teachers should give students the freedom to choose their learning style.
- Working alone can also be a valuable way to improve language skills.
- Establish clear goals and expectations for the group, assign roles and responsibilities,
 and encourage everyone to participate and contribute.
- Cooperative learning should be used when necessary.
- Teachers should focus on implementing group work in the classroom through games, group activities, and assignments.
- Cooperative learning is important for exchanging ideas and making the classroom a
 more comfortable and enjoyable environment. This can lead to improved performance
 on assessments.
- Collaborative work can facilitate the learning process and help to develop new skills.
- Cooperative learning groups should be limited to 2-4 members to avoid unwanted noise. It is important to choose a subject that is compatible with the level of all members.
- Working in groups allows for the exchange of ideas and can help students who struggle to understand the material.
- Debating different subjects, discussing movies, and current events can be effective in promoting cooperative learning.

• for improving the effectiveness of cooperative learning groups include: participating in the group, speaking English at all times, debating with friends, practicing oral skills, and working with a friend outside of class.

EFL teachers were also given the chance to provide some recommendations for teachers who are new to cooperative learning, their recommendations are interpreted as follows:

- EFL teachers who are new to cooperative learning should read extensively about the method and try to apply it carefully and effectively.
- Novice teachers should establish roles for each student, establish group goals, consider assessment, and build trust between the members of the group to ensure good results.
- Teachers should implement cooperative learning mainly in writing as it can improve students' cognitive and socio-affective skills.
- When the module requires team work, cooperative learning can be implemented by the teacher, but if not, individual work can still measure the real level of the student.

3.6 Limitations of the study

Firstly, the study was conducted in a single location and involved a limited number of participants, which means that the findings may not be generalizable to other EFL contexts or student populations. Additionally, the participants in this study were all college-level students, and the results may not apply to younger students or those with different language backgrounds.

Secondly, the study was conducted over a relatively short period of time and did not take into account the long-term effects of cooperative learning on EFL language learning.

Future research could explore the sustainability of the effects of cooperative learning over an extended period of time.

Finally, the study did not explore the perspectives or experiences of EFL teachers who do not use cooperative learning strategies, which could provide insights into the reasons why some teachers may be hesitant to adopt cooperative learning in their classrooms.

3.7 Conclusion

The study found that cooperative learning strategies can increase EFL students' motivation and engagement in language learning, as well as improve their language skills. Participants recognized the benefits of cooperative learning, including exposure to diverse perspectives and ideas, and increased opportunities for speaking and listening practice. The study also confirmed that EFL teachers who effectively integrate cooperative learning into their curriculum are likely to see a greater improvement in their students' language learning compared to those who do not use cooperative learning strategies. However, challenges such as ineffective group work, classroom management issues, and difficulty in preparing teaching materials may arise. Overall, cooperative learning was viewed positively as a valuable teaching strategy for EFL classrooms with benefits for both learners and teachers.

General Conclusion

General Conclusion

The present study aimed to investigate the role of cooperative learning in enhancing EFL students' language learning and to provide recommendations for effective implementation.

The findings of the study suggest that cooperative learning has the potential to increase EFL students' motivation and engagement in the language learning process. The majority of participants who took part in cooperative learning activities reported positive experiences that promoted greater engagement, interaction, and motivation among learners. Moreover, the data showed that a significant number of participants who did not have the opportunity to participate in cooperative learning activities recognized the need for such methods to promote a more collaborative and interactive learning environment.

These results support the first hypothesis that the use of cooperative learning strategies can increase EFL students' motivation and engagement in language learning.

In addition, the results of the study provide evidence in support of the second hypothesis, indicating that the implementation of cooperative learning strategies results in a significant improvement in EFL students' language skills. EFL students perceive cooperative learning as an effective approach to enhancing their language skills, with the majority of respondents highlighting benefits such as exposure to diverse perspectives and ideas, improved motivation and engagement, and increased opportunities for speaking and listening practice.

Moreover, the findings of the study support the third hypothesis, suggesting that EFL teachers who effectively integrate cooperative learning into their curriculum are likely to see a greater improvement in their students' language learning compared to those who do not use

cooperative learning strategies. The study shows that EFL teachers who effectively integrate cooperative learning into their curriculum promote peer interaction, motivation, and language skills while reducing affective barriers. They also emphasize the importance of individual accountability and evaluation and provide various strategies for achieving equal participation.

Overall, the study provides valuable insights into the potential benefits and challenges of cooperative learning in EFL classrooms. The results highlight the importance of promoting peer interaction, motivation, and language skills through cooperative learning and the need for individual accountability and evaluation. The findings also underscore the importance of effective implementation of cooperative learning strategies in EFL classrooms to maximize its benefits for students' language learning.

The present study provides valuable recommendations for EFL teachers who are interested in implementing cooperative learning strategies in their classrooms. First, EFL teachers should raise awareness about cooperative learning among EFL teachers on how to use it effectively. Teachers can read extensively about this method and try to apply it with careful practicality. Second, EFL teachers should establish roles for each student and group goals to ensure good results. Third, EFL teachers should consider assessment and evaluate both cognitive skills and academic achievements. Fourth, EFL teachers should build trust between the members of the group. Finally, EFL teachers should implement cooperative learning mainly in writing as it improves students' cognitive and socio-affective skills.

Furthermore, the study suggests several implications for future research in the field of cooperative learning and EFL education. First, further research should investigate the effectiveness of cooperative learning strategies in different EFL contexts and with different age groups. Second, future research should explore the impact of cooperative learning on the development of specific language skills such as grammar, vocabulary, and pronunciation.

Third, research should focus on the factors that influence the successful implementation of cooperative learning in EFL classrooms, such as teacher training, classroom management, and the development of appropriate materials.

Bibliography

Bibliography

- Aronson, E., Blaney, N., Stephan, C., Sikes, J., & Snapp, M. (1978). The jigsaw classroom. Beverly
 Hills, CA: Sage Publications.
- Assor, A., Kaplan, H., & Roth, G. (2002). Choice is good, but relevance is excellent: Autonomy-enhancing and suppressing teacher behaviours predicting students' engagement in schoolwork. British Journal of Educational Psychology, 72(2), 261-278.
- Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Prentice Hall.
- Basit, T. N. (2003). Manual or electronic? The role of coding in qualitative data analysis. Educational Research, 45(2), 143-154.
- Belmekki, A., & Baghzou, S. (2022). Algerian EFL Secondary School Students' Attitudes towards
 Using Group Investigation Cooperative Learning Model for Teaching English School Projects. Arab
 World English Journal, 13(2), 500–511. https://doi.org/10.24093/awej/vol13no2.35
- Biemans, H. J. A., Wesselink, R., Gulikers, J., & Schaafsma, S. J. (2004). Towards a holistic approach to competence-based assessment. Educational Research Review, 1(2), 130-146.
- Brown, H, D., & Abeywickrama, P. (2019). Language Assessment: Principles and Classroom Practices. (3rded.). Pearson Education ESL.
- Brown, J. D. (2001). Using surveys in language programs. Cambridge, UK: Cambridge University
 Press.
- Cheng, C., & Furnham, A. (2012). Cultural differences in self-determination and well-being: A study of British and Chinese adolescents. Personality and Individual Differences, 52(5), 626-631.
- Clark, R. E. (2012). Bailing out constructivism. Journal of Educational Psychology, 104(2), 357-368.
- Cohen, L., Manion, L. & Morrison, K. (2018). Research Methods in Education (8th ed.). New York: Routledge.
- Cortright, R. N., Collins, H. L., Rodenbaugh, D. W., & DiCarlo, S. E. (2003). Student retention of course content is improved by collaborative-group testing. Advances in Physiology Education, 27(3-4), 102-108.

- Creswell, J. W. (2020). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research (6th ed.). Boston: Pearson.
- Creswell, J.W., & Creswell, J.D. (2018). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (5th ed.). SAGE Publications.
- Díaz-Maggioli, G. (2003). Strategies for teaching learners with diverse needs (2nd ed.). Alexandria,
 VA: TESOL.
- Dillenbourg, P., Baker, M., Blaye, A., & O'Malley, C. (1996). The evolution of research on collaborative learning. In E. Spada & P. Reiman (Eds.), Learning in humans and machines: Towards an interdisciplinary learning science (pp. 189-211). Oxford: Elsevier.
- Dörnyei, Z. (2007). Research Methods in Applied Linguistics. Oxford: Oxford University Press.
- Dörnyei, Z. (2010) Questionnaires in Second Language Research: Construction, Administration, and Processing (2nd ed.). London: Routledge http://www.zoltandornyei.co.uk/
- Gillies, R. M., & Boyle, M. (2010). Teachers' reflections on cooperative learning: Issues of implementation. Teaching and Teacher Education, 26(4), 933-940.
- Greenwood, C. R., Carta, J. J., & Hall, R. V. (1988). The use of peers as instructional agents.
 Exceptional Children, 55(6), 497-504.
- Hiebert, J., & Carpenter, T. P. (1992). Learning and teaching with understanding. In D. A. Grouws (Ed.), Handbook of research on mathematics teaching and learning (pp. 65-97). Macmillan.
- Johnson, D. W., & Johnson, R. T. (1974). Instructional goal structure: Cooperative, competitive, or individualistic. Review of educational research, 44(2), 213-240.
- Johnson, D. W., & Johnson, R. T. (1975). Learning together and alone: An investigation of group and individual tutoring. Palo Alto, CA: Consulting Psychologists Press.
- Johnson, D. W., & Johnson, R. T. (1980). The role of conflict in cooperative versus competitive interdependence. Psychological Bulletin, 88(1), 29-47.
- Johnson, D. W., & Johnson, R. T. (1989). Cooperation and competition: Theory and research. Edina,
 MN: Interaction Book Company.

- Johnson, D. W., & Johnson, R. T. (1999). Making cooperative learning work. Theory into practice, 38(2), 67-73.
- Johnson, D. W., & Johnson, R. T. (2009). An educational psychology success story: Social interdependence theory and cooperative learning. Educational researcher, 38(5), 365-379.
- Johnson, D. W., Johnson, R. T., & Holubec, E. J. (1994). The new circles of learning: Cooperation in the classroom and school. Alexandria, VA: Association for Supervision and Curriculum Development.
- Johnson, D. W., Johnson, R. T., & Smith, K. A. (1998). Cooperative learning: Increasing college faculty instructional productivity (ASHE-ERIC Higher Education Report No. 4). George Washington University, School of Education and Human Development.
- Johnson, D. W., Johnson, R. T., & Smith, K. A. (2014). Cooperative learning: Improving university instruction by basing practice on validated theory. Journal on excellence in college teaching, 25(3&4), 85-118.
- Johnson, D. W., Johnson, R. T., & Stanne, M. B. (2000). Cooperative learning methods: A metaanalysis. Retrieved from
 https://www.researchgate.net/publication/225641312_Cooperative_learning_methods_A_metaanalysis
- Johnson, D. W., Johnson, R., & Holubec, E. (2013). Cooperation in the classroom (9th ed.). Edina,
 MN:Interaction Book Company
- Jonassen, D. H., & Land, S. M. (2012). Theoretical foundations of learning environments. Routledge.
- Jonassen, D. H., & Land, S. M. (Eds.). (2012). Theoretical foundations of learning environments (2nd ed.). Routledge.
- Kagan, S. (1994). Cooperative learning. San Juan Capistrano, CA: Resources for Teachers, Inc.
- Kagan, S., & Kagan, M. (2009). Kagan cooperative learning. Kagan Publishing.
- Karami, M. (2017). The effect of cooperative learning on metacognitive awareness of reading comprehension strategies. International Journal of Applied Linguistics and English Literature, 6(4), 82-88.

- Kebiri, A., & Belmekki, A. (2018). Cooperative Learning: Towards A New Outlook in Algerian Universities. European Journal of Research and Reflection in Educational Sciences, 6(1).
- Kirschner, P. A., Buckingham Shum, S. J., & Carr, C. S. (2003). Visualizing argumentation: Software tools for collaborative and educational sense-making. London: Springer.
- Kirschner, P. A., Sweller, J., & Clark, R. E. (2006). Why minimal guidance during instruction does
 not work: An analysis of the failure of constructivist, discovery, problem-based, experiential, and
 inquiry-based teaching. Educational Psychologist, 41(2), 75-86.
- Kothari, C. R. (2019). Research Methodology: Methods and Techniques (4th ed.). New Age International Publishers.
- Kreijns, K., Kirschner, P. A., & Jochems, W. (2003). Identifying the pitfalls for social interaction in computer-supported collaborative learning environments: A review of the research. Computers in Human Behavior, 19(3), 335-353.
- Kurt, G., & Atay, D. (2019). The effects of cooperative learning on EFL students' achievement and attitudes towards English. Journal of Language and Linguistic Studies, 15(1), 1-20.
- Leavy, P. (2017). Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches. Guilford Publications.
- Li, Y. (2015). The effects of cooperative learning on EFL learners' oral proficiency. English Language Teaching, 8(5), 1-8. doi: 10.5539/elt.v8n5p1
- Li, Y. (2020). Cooperative learning in EFL classroom. Studies in English Language Teaching, 8(1), 1 10.
- Lin, Y.-R., & Huang, H.-T. (2018). The effects of cooperative learning on EFL learners' performance in writing: A meta-analysis. Educational Research Review, 24, 132-145. doi: 10.1016/j.edurev.2018.04.004
- Lyman, F. T., & Foord, F. A. (1994). Think-Pair-Share: An expanding teaching technique. ERIC Digest.
- Lyman, F. T., & Frederick, J. M. (1988). Think-Pair-Share: An expanding teaching technique. Social Education, 52(4), 281-283.

- Macintyre, C. (2000). The Art of Action Research in the Classroom. London: David Fulton Publisher.
- Milne, J. (1999). Questionnaires: Advantages and Disadvantages. Retrieved November 27,2014
 http://www.icbl.hw.ac.uk/ltdi/cookbook/info_questionnaires/index.html.
- Miyahara, M. (2020). Sampling: Problematizing the issue. In McKinley, J., & Rose, H. (Eds.), The Routledge Handbook of Research Methods in Applied Linguistics (1st ed., pp. 52- 62). New York: Routledge.
- Ngulube, P. (2020). The movement of mixed methods research and the role of information science professionals. In, P. Ngulube (Ed), Handbook of Research on Connecting Research Methods for Information Science Research (pp. 425-455). IGI Global.
- Palincsar, A. S., & Brown, A. L. (1984). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. Cognition and Instruction, 1(2), 117-175.
- Parahoo, K. (1997). Nursing research: Principles, process, and issues (6th ed). Basingstoke:
 Macmillan.
- Roseth, C. J., Johnson, D. W., & Johnson, R. T. (2008). Promoting early adolescents' achievement and peer relationships: The effects of cooperative, competitive, and individualistic goal structures.
 Psychological Bulletin, 134(2), 223-246.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American Psychologist, 55(1), 68-78. doi: 10.1037/0003-066X.55.1.68
- Salmi, K., & Zard, F. (2018). Investigating the Use of Cooperative Learning Method in the Algerian EFL Classes: Case Of Study: Al'Haj Kheri L'khier Secondary School, Magra, M'sila. [Master Dissertation]. UNIVERSITY OF MOHAMED BOUDIAF, M'SILA, Algeria.
- Sharan, S., & Sharan, Y. (1994). Handbook of cooperative learning methods. Westport, CT:
 Greenwood Press.
- Slavin, R. E. (1985). Cooperative learning (2nd ed.). New York: Longman.
- Slavin, R. E. (1995). Cooperative learning: Theory, research, and practice (2nd ed.). Allyn and Bacon.

- Slavin, R. E. (2015). Cooperative learning and academic achievement: Why does groupwork work? Anales de Psicología, 31(3), 785-797. doi: 10.6018/analesps.31.3.199881
- So, H., & Kim, B. (2019). Cooperative learning in EFL classrooms: A meta-analysis. English Teaching, 74(4), 54-78. doi: 10.15858/engtea.74.4.201912.54
- Tomal, D. R. (2003). Action Research for Educators. Lanham, MD: Scarecrow Press.
- Tsiplakides, I., & Keramida, A. (2010). Cooperative learning in relation to learner autonomy, self-efficacy and affective outcomes in EFL context. Psychology, 1(2), 105-112.
- Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.
- Wang, C. K., & Holcombe, R. (2010). Adolescents' perceptions of school environment, engagement, and academic achievement in middle school. American Educational Research Journal, 47(3), 633-662.
- Webb, N. M., Troper, J. D., & Fall, R. (1995). Constructive activity and learning in collaborative small groups. Journal of Educational Psychology, 87(3), 406-423.
- Yin, J. H. (2002). Case Study Research: Design and Methods (3rd ed). London: SAGE Publications.
- Yin, R. (1994). Case Study Research: Design and Methods (2nd ed). Beverly
- Yin, R. K. (2009) Case Study Research: Design and Methods (4th ed). Thousand Oaks, CA: SAGE Publications.

Appendices

Students' questionnaire

Dear Students,

In order to gather information for our research project, we kindly request that you participate in this questionnaire. Please indicate your response to each question by selecting the appropriate box and providing comments where necessary. We ask that you respond truthfully.

Thank you for your participation.

1- Demographic information:	
• Age:	
18-25 $26-35$	
36 – 45 46 or order	
• Gender :	
Male Female	
2- Cooperative learning experience:	
Have you ever participated in a cooperative learning activity in your English class? Yes No	
If yes, please rate your experience: Desiring Desiring	
Very positive Positive Neutral	
redutat	
Negative Very negative	
What is your attitude towards group work as a means of learning English?	
I enjoy it and find it helpful I do not mind, but it is not always helpful	
I do not like it and do not find it helpful	
I have not had enough experience with group work to form an opinion.	
• In your opinion, what are the benefits of cooperative learning in EFL classes?	
Improved motivation and engagement Exposure to different perspectives	
and ideas	
Increased opportunities for speaking and listening practice	
• If not, would you like to participate in future cooperative learning activities in your	
English class?	
Yes No	
3- Cognitive abilities:	
Do you feel participating in cooperative learning groups has helped develop your critical thinking skills?	
critical thinking skills? Strongly agree Agree	
Neutral	
Discours Ct. 1	
Disagree Strongly disagree	
 Do you feel participating in cooperative learning groups has helped develop your 	
problem-solving skills?	

Strongly agree Neutral	e	Agree		
Disagree disagree • Do you feel parti	cipating in cooperativ	e learning groups has help	Strongly	
creativity? Strongly agree Neutral		Agree	ed develop your	
Disagree disagree			Strongly	
4- Learning motivationHow important is Not important at al important	s it for you to improve	your English skills? ewhat important	Very	
What motivates y Required for school people	you to learn English? ol or work	To communicate with	English-speaking	
To travel to English-speaki Other	ing countries I	Personal interest		
English language	t cooperative learning	activities would help you Agree	improve your	
D disagree	Disagree		strongly	
 How comfortable your English class Very connected Neutral 	•	ting in cooperative learnin comfortable	g activities in Very	
enjoyable?	operative learning activingly agree	vities would make your Er	glish class more	
Neutral	Disagree		Strongly	
disagreeHave you ever en	ncountered challenges	while working in a group	to learn English?	

	Yes, disagreement with group members
	Yes, difficulty staying focused
	Yes, difficulty communicating with group members
•	No, I have not encountered any challenges Do you have any suggestions for improving the effectiveness of cooperative learning groups in an English language class?

The interview

You are kindly invited to answer my interview questions. The purpose of this interview is to learn more about the role of cooperative learning in the development of EFL students' cognitive abilities and learning achievement among Master one students at Saida University. Thank you for taking your time to assist me with this research.

19. How do you define cooperative learning, and how do you implement it in your EFL classroom?
20. How do you think cooperative learning can enhance EFL learning compared to other teaching methods?
21. How do you ensure that all students participate equally in cooperative learning activities?
22. How can you encourage shy or introverted students to participate in cooperative learning activities?

4 3.	How do you address potential challenges or obstacles that may arise when implementing cooperative learning in EFL classroom?
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• • •	
24.	. What do you see as benefits of cooperative learning for EFL students' cognitive
	abilities and learning achievement?
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• • •	
• • • •	
25. 	. How do you assess students' learning achievement in cooperative learning active and what tools or methods do you use to measure their cognitive abilities?
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• • •	
26.	. How do you think cooperative learning can be improved and better integrated in EFL instruction? What suggestions do you have for teachers who are new to
	cooperative learning?
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• • •	
•••	

	strategies in terms of developing EFL students' cognitive abilities and learning achievement?
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• • • •	
• • • •	