

The Effect of Virtual Interactions in Pairs and Groups on the Development of Speaking Ability of Iranian EFL Learners

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Abstract

The current study set out to examine the effect of pair and group virtual interaction in online classrooms on the development of speaking abilities of Iranian intermediate EFL learners. This investigation was based on the quantitative data collected based on quasi-experimental design. In order to do so, 45 students were chosen based on their scores on the CEFR placement test. These students were then divided into two experimental groups, namely *group work* and *pair work* as well as a control group who worked *individually*. Students had to participate in the IELTS Speaking test twice as pre-test and post-test. The course was held on the Skype platform for five weeks. Each session consisted of 45 minutes of speaking practice using the *Talk a Lot* textbook and 20 minutes of discussion. In order to compare the means of three independent groups, Kruskal-Wallis Test was used to compare pre-test and post-test results. The Post hoc test was used for multiple comparisons and the mean differences of groups. The findings indicated that there is a significant difference between the experimental groups and the control group regarding the effect of group and pair work in online classrooms on the speaking ability of EFL learners. According to the study findings, students who participated in pair and group work training in online classrooms had greater speaking performance than those who only received individual learning.

Keywords: [group virtual interactions](#), [individual work](#), [online learning](#), [pair virtual interactions](#), [speaking ability](#), [virtual interaction](#)

1. Introduction

Educational institutions all across the world are turning to online learning platforms to continue the process of educating learners. Students and schools all across the world now use digital learning as a main resource. This is a whole new manner of learning that many educational institutions have had to adapt. Online learning is currently used not just for academic purposes, but also for learning extracurricular activities for students. The demand for online learning has increased dramatically in recent months and will continue to do so in the future. Numerous research have been conducted in recent years on the use of collaborative learning, its methods, and possible benefits in English language teaching and teacher education programs, particularly with the emergence of online collaboration technology (Lu & Smiles, 2022; Noor et al., 2022; Unoassignment, 2023).

One issue that online English learners encounter is the dearth of opportunities for them to hone and improve their speaking skills. Although they are more convenient and flexible, online courses can lack the engaging and interactive atmosphere of traditional classroom settings. Because of this, students could find it difficult to participate in meaningful spoken exchanges and to get fast feedback on their conversational, pronunciation, and fluency skills (Gong, 2023; Hoter, 2023; Klimova, 2015; Silfia & Hamzah, 2022; Wei, 2023; Wu et al., 2023).

Additionally, the lack of in-person interaction in online English classes may exacerbate feelings of loneliness and lower motivation to engage fully in speaking exercises. Pupils may find it more difficult to communicate with their classmates on digital platforms or to talk in front of a camera, which could result in less speaking practice and less opportunities for them to gain confidence in their speaking skills (Ebadi & Salari, 2023; Harsch et al., 2021; Rampeng & Ramli, 2018; Rosmayanti, 2023; Tsymbal, 2019; Ying et al., 2021).

Furthermore, it may be difficult for students to concurrently improve their speaking and listening abilities in online classrooms due to the lack of non-verbal cues and the physical classroom dynamics. Students' overall speaking proficiency may be impacted by their inability to comprehend and react effectively in real-time interactions due to a lack of visual and vocal signals (Aldosari et al., 2022; Ghafar et al., 2023; Harsch et al., 2021; Hughes et al., 2023; Sarker et al., 2023; Tavit, 2010).

Online English courses should include interactive speaking exercises that mimic real-world communication situations in order to meet these goals and challenges. Virtual group discussions, role plays, debates, and presentations are a few examples of these activities that let students participate actively in verbal exchanges and get helpful criticism from peers and teachers. In order to provide a helpful and cooperative learning environment, educators can also use technology to offer synchronous and asynchronous speaking practice opportunities. Examples of this technology include voice recordings, video conferencing, and online speaking platforms (Ahmed Mahdi, 2022; Gong, 2023; Saputra et al., 2023).

Teachers can design a more efficient and interesting learning environment that fosters the growth of students' speaking skills by identifying and addressing the deficiency of speaking opportunities and the unique demands of students in online English programs (Rianti et al., 2022; Zhou, 2023). Teachers can provide lessons to students more efficiently through online learning through employing a variety of online learning tools, such as videos, PDFs, and podcasts, as part of their lesson preparations. Based on previous studies, online learning environments is a complex phenomenon influenced by several features of learner participation, such as synchronous and asynchronous interactions and said the fact that most online learning activities are created in an asynchronous way is one of the problems of encouraging learner involvement through strategic and meaningful interactions (Almarabeh et al., 2015; Hehir, 2023; Hunt et al., 2023; Song et al., 2019; Zhang & Zhou, 2003).

Based on Das et al. (2023), Haleem et al. (2022), Johnson (2006), and Sakkir et al. (2023), learners benefit from asynchronous interactions because they give them time to research additional learning resources, speculate about the issue, reflect on their own learning, and expand their own knowledge. In online classes where students work individually and their activity and participation in the class is much less than students who work in pairs or groups, what changes happened in their speaking abilities? The purpose of this study was to evaluate students' speaking abilities after the change in the way of doing activities in online classroom, class participations and discussions, which includes three types of individual, pair and group online interactions.

To meet the objectives of the research, the following research question were posed:

- Does type of grouping (individual vs. pair vs. small group) in online classes have any effect on the speaking ability of Iranian intermediate EFL learners?

The responses to this research question can provide clarification and interpretation of the mechanisms of interaction among students, and even the implications of interaction on communicative educational experiences.

2. Literature Review

Over the last 20 years, the rise and rapid development of Internet technologies have generated exciting opportunities for collaborative learning, opportunities that will certainly keep growing. There were strong social benefits for the participants in terms of the development of social relationships, which, according to Singh and

Richards (2006), are essential for learning progress, and the development of teamwork skills, which are critical for their potential roles as teachers. DiGiovanni and Nagaswami (2001) claimed that “computer conversations” are a type of hybrid communication that allows students to respond quickly while still allowing them to focus on their thoughts, develop comments, and work around their own level.

Learning and teaching in an online setting are similar in nature to teaching and learning in any other formal educational context, but the online medium's insidious nature offers a unique environment for teaching and learning and concluded that in both online learning and classroom instruction, the fundamental characteristics of teaching and learning, as well as the three critical components of teaching presence—design and organization, facilitating discourse, and direct instruction—will continue to be critical components of teaching effectiveness (Anderson, 2004; Li, 2022; Paul, 2019; Zamani et al., 2022).

The amount of virtual activities of students and teachers has increased significantly in recent years, and more or less this technology has been used for education. But over the past year, the use of this tool has reached its peak, and due to the epidemic of a particular disease in the world, most educational centers, including schools, institutes and universities, hold their classes online and they have practically no face-to-face communication and interaction with each other. What has occupied my mind is the lack of interaction and speaking in online English language classrooms (Harsch et al., 2021; Kazu & Kuvvetli, 2023; Wang et al., 2023).

As Bobadilla (2023), Buitrago (2016), Fan (2022), Qadhi (2018), and Suanyot et al. (2022) said through today's modern world, English has become the dominant global lingua franca, and it is undeniably a necessary factor in success. Teachers should do their best to provide considerable opportunities for students to communicate in class and eventually guide them to become self-directed learners. Instead of criticizing, teachers must instill a love of learning in the minds of the vernacular medium students in order to improve their speaking skills. The ultimate goal of ELT is thus to improve the communicative competence of the learners.

Based on the findings of Dinh, (2023), Rianti et al. (2022), Shawaqfeh et al. (2023), and Touhid (2018), it is known that learning English is strengthened by repeated practice and communication with other people, and speaking skills are enhanced by interaction at the community or classroom level. Students like to work in pairs or groups because of their knowledge sharing act and positive practice in learning English; Teachers also, because of its usefulness on the learning process as well as challenging students in a variety of ways, considered pair and group works necessary in the classrooms. Touhid (2018) also mentioned “effectiveness of pair work varies depending on the learning atmosphere, context and the learners' learning style” (p. iv)

Since the classes are held virtually, it has been more or less observed that most students are silent during the class and sometimes the teacher teaches without the active participation of students and there is a heavy and sometimes boring atmosphere in the virtual classroom, in some cases, this causes students not to participate in the class and reduces the amount of learning. Sometimes teachers improve the classroom atmosphere a bit by creating an intimate and friendly sense. But what can really be done to solve the problem of non-participation of the student in the class? Or how to solve the problem of lack of interaction and face-to-face communication that may reduce the amount of learning. In this study, we examined students' speaking ability and its variability in individual, pair and group interactions (Gherghel et al., 2023; Qiu, 2022; Venton & Pompano, 2021).

As mentioned in the previous studies collaborative speaking is one of the most valuable methods provided by foreign teachers, especially for older students and is a great option to maximize oral profession and pointed that is a highly effective method of introducing students to the human voice as a “musical instrument” able to produce a diverse range of sounds and implications. Researchers have been working in the field of education in recent years to look into the major challenges that have arisen in teaching and learning English as a foreign language. One of the most fundamental issues in foreign language learning is preparing students to be proficient in the language (Budiman et al., 2023; Habók et al., 2022; Kutlimuratova & Abdulla, 2023; Paragae & Paper, 2023; Terzioğlu & Kurt, 2022; Wiboolyasarin et al., 2023).

Based on previous studies, teachers grouped the class according to their skills or level of proficiency, weaker students were allowed to progress in learning with the help of higher level students; but now this possibility means grouping students in very close communication is not available. Although any kinds of grouping is done, it does not have the same quality as face to-face groupings and interactions (Bi, 2023; Gherheş et al., 2021; Haelermans, 2022). For example, students may create chat groups on common messengers to ask questions or has to have simple discussions or even have these groups accompanied by a teacher; does this performance affect students' speaking skills?

In classes where students work individually and their activity and participation in the class is much less than students who work in pairs or groups, what changes happened in their speaking abilities?

Effective speaking is thought to be a natural talent. Learners either have it or don't. However, this is not the case. They may learn to talk in a variety of ways and improve their skills. No matter how skilled they are, they can't

take their speaking abilities for granted. It will assist the audience relate to them, believe in them, and appreciate them if they talk with confidence and enthusiasm (Boonkit, 2010; Riaz, 2023).

2.1 Pair and Group Interaction

The major concern of teachers in the online English language classrooms is students' silence instead of talking, cooperating in discussions and participating in class conversations. EAP tutors are becoming more aware of the issue of classroom reluctance, especially during small group discussions. Many teachers prefer to employ a systematic program to teach learners social and small-group skills. Students in such a program will be able to earn bonus points for their groups by expressing specific collaborative abilities (Ahmad, 2021; Panhwar & Bellb, 2023; Santiago-Garabieta et al., 2023).

Virtual learning environments (VLEs) were created to help students transition from being passive to being active learners. Active learning fosters the critical thinking abilities required for transferring and applying classroom knowledge in the clinical situation. The satisfaction/engagement and ease of learning of students appeared to be unaffected by their learning methods (Bedi, 2023; Melanie et al., 2018; Ryan & Poole, 2019; Verma et al., 2023).

In this respect, Lopez and Davies (2015) noticed that language learning entails both language use and reflection on language use, which can be initiated by consciously registering language aspects. Sert (2005) mentioned that in many ways, it is apparent that pair-work projects contribute positively both academically and socially. The results show that student participation in the preparation of written work has a range of benefits, including outputs that are considerably more grammatical, have fewer spelling mistakes, and reflect a higher degree of grammatical awareness. Pair work also aids students in developing healthy interpersonal ties as well as academic solidarity and confidence (Bergman, 2023; Song & Song, 2023).

According to Ahlquist (2019), the most important outcomes of group work were an increase in learners' motivation to speak English and their increased self-confidence as a result of doing so. He believed that an important factor in a classroom is that tasks are interesting, challenging, and varied. While not all learners will enjoy all tasks equally, the key ingredients are the same for all learners, young and old: challenging class activities and tasks, as well as active group interaction. What happened following this initiative demonstrated the impact on one pupil's increase in self-confidence and WTC. Another reason could be that students were encouraged to be more creative, had more opportunities to speak up, and were more willing to review and amend their work with adequate scaffolding (Aflah & Rahmani, 2022; Ghafar, 2023; Saidah, 2024).

Learning by interaction is a basic element of pair and group work, and this enables students to participate in a variety of online activities on a regular basis. The group conversation held during the experiment reflected this rising confidence. The combination of pair and group work learning activities (in class) and online practice activities via discussion time (out of class) was effective in developing students' speaking abilities; there was a focus on collaboration among students in an engaging learning environment with interesting technology. Through the use of online learning tools and group projects, students gain accuracy in their knowledge as well as the correct ways to discover it in terms of proper citation (Abdekhoda et al., 2023; Madjid, 2020; Rianti et al., 2022; Zibusiso Lydia et al., 2023).

As a result, students gained direct experience while participating in online activities in class. When they spoke, they received favorable feedback from their peers, which influenced their self-practice outside of class. When it came to measuring students' performance in the speaking assessment, there were no significant differences in speaking achievement levels between students who were taught using the pair and group work learning approach and students who were taught using the normal individual method (Kerman et al., 2024; Rianti et al., 2022; Velez & Santos, 2023)

2.2 Speaking Ability

According to Tanveer (2007), the findings clearly show that speaking ability is the greatest anxiety-inducing skill in (English) learning. Almost everyone in the study admitted that speaking English in front of others makes them feel apprehensive and nervous. One of the most fundamental characteristics of speaking is that it occurs in real time. Speech production necessitates "real-time processing" due to time constraints that enable speakers only a limited amount of planning time (Thornbury 2005). The purpose of Campbell and Larson's (2013) study was to see if people's anxiety levels differed when giving a lecture in a traditional classroom (face-to-face) versus giving a speech to the same audience via web-conferencing technology.

Tsou (2005) claimed that the importance of classroom interaction or students' spoken participation in class has been studied in language acquisition studies. However, getting learners to respond in a language classroom, particularly a foreign language class, has proven to be a challenge for most language teachers. To change students' perceptions about class involvement and provide sufficient opportunities for practice, foreign language teachers merely need to identify the theory for their students' anxiety and develop cultural activities that address those causes. As a result, not only did students' speaking skills improve, but their attitudes about class improved as well.

Based on the [Khan and Arshad \(2010\)](#), different activities and possibilities for improving speaking skills are not given sufficient time. Although both teachers and students share responsibility for weak speaking ability, teachers are held to a higher standard due to their qualification and experience also they claimed that in order to improve speaking ability, more emphasis should be placed on the quality of books at the primary level, sufficient time given to students' speaking and pronunciation exercises, friendly environment should be provided, appropriate and relevant strategies should be designed by teachers for students while speaking in English the entire time, and students developing courage and confidence in asking questions during class time and suggested seminars, group discussions, and speech games should all be scheduled on a regular basis to help students improve their speaking skills ([Boonkit, 2010](#); [Qiao & Zhao, 2023](#)). The purpose of this study was to evaluate students' speaking abilities after the change in the way of doing activities, class participations which includes three types of individual, pair and group interactions.

3. Methodology

3.1 Research Design

This investigation was based on the quantitative data collected based on quasi-experimental design. In this study the two experimental groups received two types of grouping methods: working in pairs and in small groups but the control group worked individually. Any differences in their speaking performance can be seen directly in the post intervention in speaking test.

3.2 Participants

The number of participants before proficiency test was 120 EFL learners. After applying the CEFR placement test 45 female students, ranging in age from 15 to 20 years old were considered for the main phase of the research. Participants were assigned to groups based on their scores on the placement test with an average level of intermediate based on the CEFR scale. The total number of 45 learners received the required scores and selected for main study. The CEFR (Common European Framework of Reference for languages) is a global standard for describing language proficiency. It is a term used all globally to define a learner's linguistic abilities. It is divided into 6 levels with A1 being the most basic and C2 being the most advanced. EFL students of the present study should have received the score of B1 level (total is 550 to 780) to be included in this research. After applying the English language proficiency level examination, the chosen students in intermediate level were divided into three groups that consisted of 14, 15 and 16 students.

3.3 Instruments

In order to obtain quantitative data, four instruments were used in this investigation including the IELTS Speaking Test, the CEFR placement test, the Skype platform and the *Talk a lot* Textbook. The pretest and posttest used in this study is based on the IELTS speaking test for the students in intermediate level. It has been used by a variety of institutions to evaluate students' performance. It was utilized in this study to assess students speaking ability before and after treatment in the control and experimental groups.

3.4 Procedure

In this study the two experimental groups received two types of grouping methods: working in pairs and in small groups but the control group worked individually. Any differences in their speaking performance can be seen directly in the post intervention in speaking test.

In general, the IELTS speaking test is reliable and valid ([Fernandez, 2018](#); [Li, 2019](#); [Nakatsuhara et al., 2017](#); [Seedhouse & Nakatsuhara, 2018](#)). The test is valid in terms of content validity. The relevance of the test content to the content of a given behavioral area of interest, as well as the generalizability of the item or task content, are both important considerations ([Hughes, 2003](#)). It was chosen for pretest and posttest because it is a globally recognized exam and accepted by institutions, universities and schools. The inter-rater reliability of speaking scores between two raters in this study was .957.

The Education First (EF) SET is the best choice in English which employed in this study was for selecting intermediate level learners at B1 level, because it is free and the first standardized test to be fully matched to the CEFR. Both the experimental and control groups were mainly on a single platform (Skype). The researcher chose a high quality speaking textbook named "*Talk a Lot*" a Spoken English Course by [Purland \(2011\)](#), includes four full-length spoken English lessons.

3.4.1 The Online Course

The first experimental group, received group work approach, consisted of 15 students who were divided into five groups of three. The second experimental group, which consisted of 16 participants was divided into eight pairs.

The control group with 14 students received no treatments throughout the same time period as the experimental group. They were given traditional training and worked individually with the same book and in the discussion time.

In the fall term of 2021, the number of 45 EFL learners were started a course consisted of ten sessions. Each class lasted seventy minutes and was held twice a week. The online course lasted a total of five weeks to complete. The active learning time was divided into three sections.

- 45 minutes for textbook-based teaching and learning.
- Around five minutes thinking and taking notes, to begin the discussion.
- About twenty minutes of discussion on the chosen topic.

The Skype platform was used to train all three groups in this study. They were all given the “*Talk a lot*” textbook to help them enhance their speaking abilities. After completing the tasks in the book and at the end of the teaching time with the book, the students, accompanied by the teacher, chose the topic of free discussion for the next session. After selecting the topic for the next session, students spent five minutes thinking and then 20 minutes interaction on the pre-determined topic. Voice and text messages were used to consult and give feedback to peers in chat groups using the Skype platform. This process was done for ten sessions.

3.4.2 The Pre-test and Post-test

As mentioned before, the pre-test and post-test in this study was the IELTS Speaking Test, which due to the main nature of the research, it was held online. Because of the high importance of the scores of this test as well as its reliability, validity and practicality, an external examiner was invited to administer the tests and do the scoring. This test was conducted online on Skype platform in the form of a ten- to fifteen-minute interview. The interview was divided into three sections according to the main IELTS speaking test. After interviewing with students, the scores were recorded for the test details such as fluency, grammar, vocabulary and pronunciation and the final IELTS Speaking scores.

3.5 Data Analysis

In order to compare the means of three independent groups, according to the fact that the distribution of scores was normal (Table 2), so that Kruskal-Wallis Test was used in this study to compare pre-test and post-test results in order to analyze the variances between groups and also since the difference was statistically significant, multiple comparisons was used to make sure where is the difference between three groups. The Post hoc test was used for multiple comparisons and the mean differences of groups. The CEFR placement test was used to select intermediate level EFL learners at the beginning of the study. Table 1 shows the descriptive statistics for the EF SET scores.

Table 1. Descriptive statistics for the EF SET scores

| group | | Statistic | Std. Error | |
|----------------------|----------------------------------|-------------|------------|--|
| EF.SET control group | Mean | 44.3571 | .80252 | |
| | 95% Confidence Interval for Mean | Lower Bound | 42.6234 | |
| | | Upper Bound | 46.0909 | |
| | Median | 43.5000 | | |
| | Variance | 9.016 | | |
| | Std. Deviation | 3.00275 | | |
| | Minimum | 41.00 | | |
| | Maximum | 50.00 | | |
| experimental group1 | Mean | 45.8667 | .82731 | |
| | 95% Confidence Interval for Mean | Lower Bound | 44.0923 | |
| | | Upper Bound | 47.6411 | |
| | Median | 46.0000 | | |
| | Variance | 10.267 | | |
| | Std. Deviation | 3.20416 | | |
| | Minimum | 41.00 | | |

| | | | | |
|----------------------|----------------------------------|-------------|---------|--|
| experimental group 2 | Maximum | 50.00 | | |
| | Mean | 46.1250 | .73527 | |
| | 95% Confidence Interval for Mean | Lower Bound | 44.5578 | |
| | | Upper Bound | 47.6922 | |
| | Median | 46.0000 | | |
| | Variance | 8.650 | | |
| | Std. Deviation | 2.94109 | | |
| | Minimum | 42.00 | | |
| | Maximum | 50.00 | | |

As mentioned previously, the students who qualified as B1 level of CEFR Placement test were selected to participate in the study.

Table 2. K-S Test of Normality for Pretest Scores

| | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
|----------------|---------------------------------|----|------|--------------|----|------|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Total. Pretest | .242 | 45 | .000 | .799 | 45 | .000 |

a. Lilliefors Significance Correction

According to Table 2 above, the significance level of K-S test is .000 (P-value= .000 < 0.05), so the distribution of pretest scores is normal.

3.5.1 Descriptive Statistics for Pretest Scores

The IELTS speaking test was administered as pretest and post-test in this study. Table 3 shows the descriptive statistics of pretest scores.

Table 3. Descriptive statistics for pretest scores

| group | | Statistic | Std. Error | |
|-------------------------------|----------------------------------|-------------|------------|--|
| total.- Pretest control group | Mean | 3.4643 | .08228 | |
| | 95% Confidence Interval for Mean | Lower Bound | 3.2865 | |
| | | Upper Bound | 3.6420 | |
| | Median | 3.5000 | | |
| | Variance | .095 | | |
| | Std. Deviation | .30786 | | |
| | Minimum | 3.00 | | |
| | Maximum | 4.00 | | |
| experimental group1 | Mean | 3.6667 | .11616 | |
| | 95% Confidence Interval for Mean | Lower Bound | 3.4175 | |
| | | Upper Bound | 3.9158 | |
| | Median | 4.0000 | | |
| | Variance | .202 | | |
| | Std. Deviation | .44987 | | |
| | Minimum | 3.00 | | |

| | | | | |
|----------------------|----------------------------------|-------------|--------|--|
| experimental group 2 | Maximum | 4.00 | | |
| | Mean | 3.5938 | .09375 | |
| | 95% Confidence Interval for Mean | Lower Bound | 3.3939 | |
| | | Upper Bound | 3.7936 | |
| | Median | 3.5000 | | |
| | Variance | .141 | | |
| | Std. Deviation | .37500 | | |
| | Minimum | 3.00 | | |
| | Maximum | 4.00 | | |

The mean score for pretest scores for control group is 3.4, for experimental group one is 3.6 and, for experimental group two is 3.5. As it can be seen from the table, the p-value is .209, which is greater than 0.05 (p-value = .209 > .05), meaning that the difference in the mean of speaking pretest scores is not significant.

3.5.2 Descriptive Statistics for Post-test Scores

The results of the IELTS speaking test as post-test is indicated in Table 4 which shows the descriptive statistics of post-test scores.

Table 4. Descriptive statistics of post-test scores

| group | | Statistic | Std. Error | |
|-------------------------------|----------------------------------|-------------|------------|--|
| Total. Posttest control group | Mean | 3.4643 | .08228 | |
| | 95% Confidence Interval for Mean | Lower Bound | 3.2865 | |
| | | Upper Bound | 3.6420 | |
| | Median | 3.5000 | | |
| | Variance | .095 | | |
| | Std. Deviation | .30786 | | |
| | Minimum | 3.00 | | |
| | Maximum | 4.00 | | |
| experimental group1 | Mean | 4.3000 | .06547 | |
| | 95% Confidence Interval for Mean | Lower Bound | 4.1596 | |
| | | Upper Bound | 4.4404 | |
| | Median | 4.5000 | | |
| | Variance | .064 | | |
| | Std. Deviation | .25355 | | |
| | Minimum | 4.00 | | |
| | Maximum | 4.50 | | |
| experimental group 2 | Mean | 4.5938 | .11382 | |
| | 95% Confidence Interval for Mean | Lower Bound | 4.3511 | |
| | | Upper Bound | 4.8364 | |
| | Median | 4.7500 | | |
| | Variance | .207 | | |
| | Std. Deviation | .45529 | | |
| | Minimum | 4.00 | | |

| | |
|---------|------|
| Maximum | 5.00 |
|---------|------|

The mean score for post-test scores for control group is 3.4, for experimental group one is 4.3 and, for experimental group two is 4.5. Kruskal-Wallis Test was run in order to see if the post-test scores were significantly different between the three groups. The significance level of K-S test for post-test scores is .002 (P-value= .002 < 0.05), so the distribution of post-test scores is normal. As the table 3 shows, the p-value is .000 which is less than 0.05 (p-value =.000 < .05). So, it can be concluded that there is a significant difference between the post-test scores of three groups of the study, so the null hypothesis was rejected. Since the difference is statistically significant, also multiple comparisons was used to make sure where the difference is. The Post hoc test for multiple comparisons and the mean differences of groups is indicated in Table 5.

Table 5. Post-hoc test results

Dependent Variable: total. Posttest

LSD

| (I) group | (J) group | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|----------------------|----------------------|-----------------------|------------|------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| control group | experimental group1 | -.83571* | .13128 | .000 | -1.1006 | -.5708 |
| | experimental group 2 | -1.12946* | .12928 | .000 | -1.3904 | -.8686 |
| experimental group1 | control group | .83571* | .13128 | .000 | .5708 | 1.1006 |
| | experimental group 2 | -.29375* | .12696 | .026 | -.5500 | -.0375 |
| experimental group 2 | control group | 1.12946* | .12928 | .000 | .8686 | 1.3904 |
| | experimental group1 | .29375* | .12696 | .026 | .0375 | .5500 |

*. The mean difference is significant at the 0.05 level.

According to the Table 5 above, There is a significant difference between the control group and the first experimental group (p-value =.000 < .05) and also a difference between the control group and the second experimental group (p-value =.000 < .05). Also there is a significance difference between the first experimental group and the second experimental group (p-value =.026 < .05)

4. Results

According to the findings, there was a substantial difference in the speaking scores before and after the application of pair and group work learning. The overall speaking scores of the speaking assessment administered at the end of the intervention were higher than those administered before it, indicating that the pair and group work method had a favorable impact on the experimental group students' speaking performance. This shows that learning in pairs and groups, as well as online learning, was beneficial in increasing students' speaking abilities. It could be because students are more motivated to interact when they are given the same content in multiple ways and receive feedback from peers and expert knowledge. Furthermore, the large difference in speaking scores could be attributable to the online professors' use of more pair and group work exercises.

The benefits of online pair and group work learning might be attributed to using more than one sense and addressing the students' various learning styles through a variety of activities, strategies, and multi-media including pictures, texts, videos, discussions, and voice messages. This improved speaking ability might also be triggered by an ongoing dynamic atmosphere that enhanced their motivation and interest in studying. In addition, the online pair and group work learning provided a variety of inputs and reactions that supported learning and engagement.

According to findings, because of the implementing pair and group work learning there are statistically significant differences in the achievement level of English speaking skills. There are statistically significant differences in the experimental groups' achievement level of English speaking skills in favor of the post-test evaluation. In the instruction of the English speaking skill, pair and group work learning outperformed the normal individual learning method. Through a variety of interactive activities, pair and group work learning offered students with a better learning environment in which they could improve their self-learning skills and reflect on their speaking achievement. Instead of receiving separate instruction, students were encouraged to engage in interactive English language practice through pair and group work. Students' interaction and collaborative learning improved as a result of pair and group work learning.

Additionally, because shy students and poor achievers were not criticized, pair and group work learning was particularly helpful in pushing them to participate and communicate in both synchronous and asynchronous activities. Pair and group work learning provided students with delight, pleasure, excitement, and variety, all of which had a beneficial impact on their performance. Students were able to receive the language at their relaxation and comfort given the availability of online lessons and out-of-class interactions. Participants developed interaction patterns as a result of pair and group work learning. During the discussion period, students exchanged ideas and corrected each other's mistakes, displaying this. Low achievers and weak learners benefited greatly from the pair and group work because they were able to interact with and learn from higher achievers.

5. Discussion

The purpose of this study was to see how virtual interaction in pairs and groups in online classes affected the development of EFL learners' speaking ability. The IELTS Speaking test was used to assess the participants' performance in order to answer this question. There was a significant difference in speaking skill between groups, according to the one-way ANOVA results. We can say that the null hypothesis was rejected based on the results of the analyses.

The goal of this course is to help students work smarter by creating a more collaborative environment. Teacher can allow their organization grow by developing a positive learning environment. In this research, students in experimental groups had speaking partners in pairs and small groups. It could have helped active students improve their speaking skills, while passive students could also learn together and become more interested in being engaged in their group. Students were more effectively engaged in assignments in pairs or groups in answering book exercises and in group discussion on the platform because the objectives and outcomes of activities were made apparent. The success of the pair and group work approach can be attributed to the platform's interactive nature. Furthermore, the course's interactive content as well as the instructional online exercises have all resulted in a greater sense of engagement with speaking as well as a higher level of instructor feedback on the platform.

In fact, there was a statistically significant difference in overall speaking scores between students who received the pair and group work learning technique and those who did not. This finding is consistent with Polak's (1964) research, which indicated that students who received pair and group work learning instruction scored much higher than students who received standard teaching. Students in the speaking course benefited from the utilization of online pair and group work learning. Due to the online format of the classes and the investigation, students were able to view their classmates' feedback at any time. They were the ones in charge of their education. Interacting with their classmates and instructor aided them in their learning. As a result, students learned from each other, as they were exposed to outstanding, average, and poor speaking performances. They reviewed and commented on other students' speaking work, and expressed their needs and asked questions (Ali et al., 2023; Donelan & Kear, 2023; Kamaludin et al., 2023; Rai et al., 2023; Xia et al., 2022).

Regarding the effect of pair and group work on students' speaking ability, the findings were in accordance with those of Wang and Castro (2010), Madjid (2020), Alikhani and Bagheridoust (2017), Ahlquist (2019), Rospinah, Tenri Ampa, and Nappu (2021), Namaziandost, Shatalebi, and Nasri (2019), Hung and Tuyet Mai (2020), and Mulyasari (2018) which concluded the positive effect of pair and group work on students' speaking ability. The findings of the present study, also, provide evidence in supporting the findings of Sinurat, Pardede, and Hotmaria (2019) and Fauzi (2017) regarding the positive effect of group discussion on the development of speaking skills. They believed that small group discussions, can effectively improve students' speaking skills, actively engage them in group work discussions, encourage them to be independent learners who can expose themselves to learning activities, make them feel more relaxed while learning, and provide them with more opportunities to enhance their speaking skills. Also they indicated that students who are taught through small group discussion are more focused and enjoy their learning process because they are able to guide and affect one another more effectively than students who are not taught through small group discussion.

The present study also contrasted with those of Chang and Kang (2016), Brickman and Chang (2018), and Kanevsky (2015) which indicated that, although group work is thought to help a group complete its work more quickly, it may deprive students of the opportunity to gain skills and information that they lack. Also group work

is problematic in online learning because of the unsynchronized communications between the teacher and learners, as well as learners and learners. Time zones, a lack of visible clues, students' hidden identities, and restricted verbal communication cues are all things to think about. When favorable settings for group work are not available, high-ability students may prefer to work alone. Students in both high- and low-performance complained about unequal contributions while complimenting group social support. Students with high test scores, independent of their groups' overall performance levels, were more likely to see the benefits of group work, whereas students with lower test scores saw group work as time-consuming "busy work" with no cognitive gain (Kuliahana & Marzuki, 2023; Omar, 2023; Warliati et al., 2023).

Regarding the advantages and disadvantages of pair and group work Madison's ePortfolio (2018) believed that there is something missed in the online teamwork environment and said learners believe they are less responsible. It's easy for them to never feel the same connection online as they do in individual. If a member of the group fails to complete their portion of the task, they may be more motivated to do so if they see the other members in real time. Individual learning allows students to work at their own pace rather than relying on others. They have complete control over what they do and when they do it. Students can also concentrate better and work more quickly. Because there are no outside interactions or meetings when they are focused on a familiar task, they can do it faster (Han et al., 2022; Munawaroh et al., 2022; Rianti et al., 2022).

Due to the fact that students work alone, they receive full credit for their efforts. They overlook, however, the significant benefits of working in groups, which boost teamwork and allow for brainstorming. As a result, more ideas are generated and speaking productivity improves. He thought that when it came to solving issues, completing difficult tasks, and developing creativity, two or more people were always better than one. Group work also promotes communication among team members. As a result, participant relationships tend to improve, and they learn to communicate more effectively over time. Furthermore, based on the finding of this study, there is a significant difference between the post-test scores of first experimental group (pair work) and second experimental group (group work) which indicated that speaking performance of pair work is much better than group work.

Regarding this, Skrzynski (2005) one of the most significant drawbacks for learners is that shy or weak students may be excluded from practice due to individuals who consistently dominate. When they work in pairs, it's not an issue, but when they work in groups, the teacher should assign duties to prevent one or two students from taking over the activity and the others from becoming passive bystanders. The assignment of roles (for example, "a secretary" who takes down what the group members say, "a leader" who guides the conversation, "a presenter" who reports on the group's final conclusions, etc.) is frequently enough to get the group talking.

Furthermore, rather than learning from their mistakes, classmates attempt to correct each other. One of the key benefits of having students converse with one another is that it helps them gain confidence and reduces the nervousness that is common in a solely teacher-centered classroom. The majority of pair work and group work exercises are aimed toward improving fluency rather than practicing accuracy. Nobody should be forced to utilize one of these managements, because they could both be very effective depending on the situation, moment, or environment in which we are going to educate. As a result, claiming that one of them is better or worse than the other is extremely inconvenient.

Additionally students found online group work more difficult than group work in face-to-face situations, according to the study's findings. Communication difficulties and a lack of a sense of community were among the top reasons that students identified as the most difficult in this study. Participants in this survey also saw a lack of sense of community as a barrier to online group work. This isn't a novel problem for students in online learning environments (Donelan & Kear, 2023; Obi, 2024).

The lack of community in online learning has been studied by several researchers (Hill, Raven, & Han, 2002; Kim, Lui, & Bonk, 2005). Online groups may experience delayed group developmental stages as a result of the medium's qualities, taking longer to build social interactions (Fung, 2004). Such difficulties may obstruct the development of team trust and cohesiveness. The key to facilitating collaborative learning, according to Gunawardena (1995), is the establishment of a sense of community. The importance of social presence in creating group dynamics and supporting online group work cannot be overstated (Garrison & Vaughan, 2008; Palloff & Pratt, 2005). An online instructor should provide several opportunities for learners to become more familiar with group members and develop more trusted relationships in order to foster a sense of connection. As a result, learners may develop a learning community over time.

In both the surveys and the interviews with participants in this study, time management was mentioned as a concern. Time management, according to other researchers, can be challenging. Palloff and Pratt (2005), for example, argue that groups should know ahead of time how long a collaborative task would take and that each group member should commit to that time. Song et al. (2004) discovered that time management is an important ability for success in online learning environments, and they offer various time management solutions. Students

should, for example, feel a feeling of responsibility and dedication to group projects, as well as dedicate a set amount of time to working on them. The orientation for online courses should include an overview of time management practices for learners (Palloff & Pratt, 2005).

6. Conclusion

This study aimed to compare students' speaking abilities when learning in pairs and groups against individual learning forms. According to the study's findings, students who participated in pair and group work training in online classrooms had greater speaking performance scores than those who only received individual learning. Pair and group work has significantly enhanced students' engagement and performance in online classrooms and discussions, and it challenges students to put up their best effort, on the other hand, encourages students to play around with language in order to get the desired results. Students have become more driven and self-assured, encouraging a willingness for speaking, and interactive and collaborative learning have become the dominant style approaches in the classroom. Finally, the researcher has changed the students' perceptions of the speaking course by employing this innovative strategy. She was also a facilitator, allowing the action to happen in real time rather than being a monologue presentation. As a result, the findings of the study approved that pair and group work method in online classrooms, have a positive effect on developing students' speaking ability.

6.1 Pedagogical Implications

In light of the findings, some pedagogical implications can be stated. Based on the findings of the current study, English language instructors are recommended to change the methods and approaches of teaching in the classes whether online or face to face from traditional individual learning to the learning in pairs or groups. It is based on the students' real involvements and could help students use English language in interactive situations such as talking together, chatting and consulting. Because learning is strengthened by repeated practice and communication with other people, and speaking skills are enhanced by interaction at the community or classroom level, teachers are advised to take advantage of activities that increase student engagement and interaction in the classroom. As a result, the findings suggest that providing virtual pair and group work resources for students in online classes could be a valuable addition, and that their utilization could lead to improved performance. However, the resources chosen and how they are integrated into the course must be carefully evaluated to avoid on-campus students becoming disengaged from the course.

6.2 Suggestions for Further Studies

The pair work and group work method in online classrooms was used to teach *speaking* in this study; Researchers may investigate the effect of this method on other skills. The gender of participants was controlled in this study. Therefore, future studies may probe the effect of pair and group work method on different genders and compare their results. It is also recommended that the same methodology be considered in the face to face classrooms in future researches and should include more participants at various levels of proficiency.

References

- Abdekhoda, M., Pourrasmi, A., & Ranjbaran, F. (2023). The effect of knowledge acquisition and knowledge sharing on the use of E-learning. *Journal of Information Science*. <https://doi.org/10.1177/01655515221142429>
- Aflah, M., & Rahmani, E. (2022). Enhancing students' active learning through group discussion roleplaying. *International Online Journal of Education and Teaching (IOJET)*, 9(4), 1470-1479. <file:///C:/Users/SMA/Downloads/6.+Mita+Nur+Aflah+et+al,+Indonesia,+1470-1479.pdf>
- Ahlquist, S. (2019). Motivating teens to speak English through group work. *ELT Journals*, 73(4), 387-395.
- Ahmad, C. (2021). Causes of students' reluctance to participate in classroom discussions. *ASEAN Journal of Science and Engineering Education*, 1, 47-62. doi: 10.17509/ajsee.v1i1.32407
- Ahmed Mahdi, D. (2022). Improving speaking and presentation skills through interactive multimedia environment for non-native speakers of English. *SAGE Open*. <https://doi.org/10.1177/21582440221079811>
- Aldosari, M. A., & Alramthi, M. S., & Eid, F. H. (2022). Improving social presence in online higher education: Using live virtual classroom to confront learning challenges during COVID-19 pandemic. *Front. Psychol*, 13. <https://doi.org/10.3389/fpsyg.2022.994403>
- Ali, A., Ishtiaq Khan, R., & Alouraini, A. (2023). A comparative study on the impact of online and blended learning. *SAGE Open*. <https://doi.org/10.1177/21582440231154417>
- Alikhani, M., & Bagheridoust, E. (2017). The effect of group dynamics-oriented instruction on developing Iranian EFL learners' speaking ability and willingness to communicate. *English Language Teaching*, 10(11), 44-59. doi:10.5539/elt.v10n11p44

- Almarabeh, H., Amer, E., & Sulieman, A. (2015). The effectiveness of multimedia learning tools in education. *International Journal of Advanced Research in Computer Science and Software Engineering*, 5(12), 761-764.
- Anderson, T. (2004). Teaching in an online learning context. In T. Anderson, & F. Elloumi (Eds.), *Theory and practice of online learning* (pp. 273-294). Athabasca: Athabasca University.
- Bedi, A. (2023). Keep learning: Student engagement in an online environment. *Online Learning*, 27(2). doi: <https://doi.org/10.24059/olj.v27i2.3287>
- Bergman, B., Negretti, R., Spencer-Oatey, H., & Stöhr, C. (2023). Integrating home and international students in HE: Academic and social effects of pair work PBL assignments online. *Journal of Studies in International Education*. doi: [10.1177/10283153221150117](https://doi.org/10.1177/10283153221150117)
- Bi, J., Javadi, M., & Izadpanah, S. (2023). The comparison of the effect of two methods of face-to-face and E-learning education on learning, retention, and interest in English language course. *Educ Inf Technol*, 28, 13737-13762. <https://doi.org/10.1007/s10639-023-11743-3>
- Bobadilla, P. K. (2023). *Improving senior high school students' communicative competence through skills integration*. <https://www.nufs.ac.jp/media/Key2022.pdf>
- Boonkit, K. (2010). Enhancing the development of speaking skills for non-native speakers of English. *Procedia Social and Behavioral Sciences*, 2(2), 1305-1309. doi: [10.1016/j.sbspro.2010.03.191](https://doi.org/10.1016/j.sbspro.2010.03.191)
- Brickman, P., & Chang, Y. (2018). When group work doesn't work: Insights from students. *CBE Life Sci Educ*, 17(7). <https://doi.org/10.1187/cbe.17-09-0199>
- Budiman, B., Ishak, J., Rohani, R., Lalu, L., & Jaelani, M. (2023). Enhancing English language proficiency: Strategies for improving student skills. *Journal of Scientific Research Education and Technology (JSRET)*, 2(3), 1118-1123. doi: [10.58526/jsret.v2i3.205](https://doi.org/10.58526/jsret.v2i3.205)
- Buitrago, A. (2016). Improving 10th graders' English communicative competence through the implementation of the task-based learning approach. *PROFILE Issues in Teachers' Professional Development*, 18(2). doi: [10.15446/profile.v18n2.48272](https://doi.org/10.15446/profile.v18n2.48272)
- Campbell, S., & Larson, J. (2013). Public speaking anxiety: comparing face-to-face and web-based speeches. *Journal of Instructional Pedagogies*, 10, 1-8. <https://files.eric.ed.gov/fulltext/EJ1097130.pdf>
- Chang, B., & Kang, H. (2016). Challenges facing group work online. *Distance Education*, 37(1), 73-88. doi: [10.1080/01587919.2016.1154781](https://doi.org/10.1080/01587919.2016.1154781)
- Das, A., Malaviya, S., Chakravarthi., Bhandari, G., & Chaudhary, M. (2023). *Chapter: 39 Leveraging technology to enhance learner engagement*.
- DiGiovanni, E., & Nagaswami, G. (2001). Online peer review: An alternative to face to face. *ELT Journal*, 55(3), 263-272. <https://doi.org/10.1093/elt/55.3.263>
- Dinh, H. (2023). *Learning activities for middle school English language learners in STEM classrooms: Are they an opportunity to learn? Background and statement of objectives*. State University of New York at Albany.
- Donelan, H., & Kear, K. (2023). Online group projects in higher education: persistent challenges and implications for practice. *J Comput High Educ*. <https://doi.org/10.1007/s12528-023-09360-7>
- Ebadi, S., & Salari, M. (2023). Investigating developments in EFL speaking through online flipped learning: A systematic review. *Technology Assisted Language Education*, 1(2), 64-93.
- Fan, X. (2022). The development of EFL Learners' willingness to communicate and self-efficacy: The role of flipped learning approach with the use of social media. *Front. Psychol*, 13. <https://doi.org/10.3389/fpsyg.2022.1001283>
- Fauzi, I. (2017). Improving students' speaking ability through small-group discussion. *Journal of ELT Research*, 2(2), 130-138. doi: [10.22236/JER_Vol2Issue2](https://doi.org/10.22236/JER_Vol2Issue2)
- Fernandez, C. J. (2018). Behind a spoken performance: test takers' strategic reactions in a simulated part 3 of the IELTS speaking test. *Language Testing in Asia*, 8(1).1-20. <https://doi.org/10.1186/s40468-018-0073-4>
- Fung, Y. H. (2004). Collaborative online learning: Interaction patterns and limiting factors. *Open Learning*, 19(2), 135-149. doi: [10.1080/0268051042000224743](https://doi.org/10.1080/0268051042000224743)
- Garrison, D. R., & Anderson, T. (2003). *E-Learning in the 21st century: A framework for research and practice*. New York: Routledge Famer.

- Garrison, D. R., & Vaughan, N. D. (2008). *Blended learning in higher education: Framework, principles, and guidelines*. doi: 10.1002/9781118269558
- Ghafar, Z. (2023). The influence of self-confidence on English language learning: A systematic review. *International Journal of Applied Educational Research (IJAER)*, 1(1), 55-68. doi:10.59890/ijaer.v1i1.452
- Ghafar, Z., Sawalmeh, M., & Mohamedamin, A. (2023). Students' strategies for improving their listening comprehension: A review of literature. *Journal of Humanities and Social Sciences Studies*, 5(1), 65-71. <https://doi.org/10.32996/jhsss.2023.5.1.9>
- Gherghel, C., Yasuda, S., & Kita, Y. (2023). Interaction during online classes fosters engagement with learning and self-directed study both in the first and second years of the COVID-19 pandemic. *Computers & Education*, 200. <https://doi.org/10.1016/j.compedu.2023.104795>
- Gherheș, V., Stoian, C., Fărcașiu, M., & Stanici M. (2021). E-learning vs. face-to-face learning: Analyzing students' preferences and behaviors. *Sustainability*, 13(8), 4381. <https://doi.org/10.3390/su13084381>
- Gong, W. (2023). Enhancing ESL learner's literacy by peer-assisted learning strategy of online English news. *Front. Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1172099>
- Gunawardena, C. N. (1995). Social presence theory and implications for interaction and collaborative learning in computer conferences. *International Journal of Educational Telecommunications*, 1(2/3), 147-166. <https://www.learntechlib.org/p/15156>
- Habók, A., Magyar, A., & Molnár, G. (2022). English as a foreign language learners' strategy awareness across proficiency levels from the perspective of self-regulated learning metafactors. *Front. Psychol*, 13. <https://doi.org/10.3389/fpsyg.2022.1019561>
- Haelermans, C. (2022). The effects of group differentiation by students' learning strategies. *Instr Sci*, 50, 223–250. <https://doi.org/10.1007/s11251-021-09575-0>
- Haleem, A., Javaid, M., Qadri, A. M., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, 3, 275-285. <https://doi.org/10.1016/j.susoc.2022.05.004>
- Han, J., Park, D., Hua, M. et al. (2022). Is group work beneficial for producing creative designs in STEM design education? *Int J Technol Des Educ*, 32, 2801–2826. <https://doi.org/10.1007/s10798-021-09709-y>
- Harsch, C., & Müller-Karabil, A., & Buchminskaia, E. (2021). Addressing the challenges of interaction in online language courses. *System*, 103(100), 102673. <https://doi.org/10.1016/j.system.2021.102673>
- Hehir, D. (2023). *The challenges of asynchronous learning and how to overcome them*. <https://www.linkedin.com/pulse/challenges-asynchronous-learning-how-overcome-them-damian-hehir-jizdf>
- Hill, J. R. (2002). Overcoming obstacles and creating connections: Community building in Web-based learning environments. *Journal of Computing in Higher Education*, 14(1), 67-86. <https://doi.org/10.1007/BF02940951>
- Hill, J. R., Raven, A., & Han, S. (2002). Connections in Web-based learning environments. *Quarterly Review of Distance Education*, 3(4), 383-393. Retrieved March 23, 2024 from <https://www.learntechlib.org/p/95259/>
- Hoter, E., & Azulay, H., & Yazbak, M. (2023). *Enhancing academic speaking skills: An immersive virtual world approach*. <https://doi.org/10.32388/H5NKUG>
- Hughes, L., Kargas, N., Wilhelm, M., Meyerhoff, S. H., & Föcker, J. (2023). The impact of audio-visual, visual and auditory cues on multiple object tracking performance in children with autism. *Sage Journals*, 130(5). <https://doi.org/10.1177/00315125231187984>
- Hughes, R. (2003). *Teaching and researching speaking*. New York: Pearson Education.
- Hung, D. M., & Tuyet Mai, L. T. (2020). High school teachers' perceptions and implementations of group work in English speaking classes. *International Journal of Instruction*, 13(2), 445-462. doi:10.29333/iji.2020.13231a
- Hunt, I., Power, J., Young, K., & Ryan, A. (2023). Optimizing industry learners' online experiences – lessons for a post-pandemic world. *European Journal of Engineering Education*, 48(2), 358-373. doi: 10.1080/03043797.2022.2112553
- Johnson, G. M. (2006). Synchronous and asynchronous text-based CMC in educational contexts: A review of recent research. *Tech Trends*, 50(4), 46-53. doi: 10.1007/s11528-006-0046-9

- Kamaludin, P., Mohd Yusof, S., Md Nawli, S., Nordin, N., Zabidin, N., & Sain, N. (2022). Group online engagement: An analysis from Tuckman Model. *International Journal of Academic Research in Business and Social Sciences*, 12(9), 931-949. <https://doi.org/10.6007/IJARBSS/v12-i9/14625>
- Kanevsky, L. (2015). Do high ability learners enjoy learning alone or in groups? It depends.... *International Journal of Special Education*, 30(2), 32-43. https://www.researchgate.net/publication/288243539_Do_high_ability_learners_enjoy_learning_alone_or_in_groups_It_depends
- Kazu, İ. Y., & Kuvvetli, M. (2023). *The impact of virtual reality technology on student engagement and learning outcomes in higher education*. file:///C:/Users/SMA/Downloads/24-Submission+432+pp+143-149.pdf
- Kerman, N., Banihashem, S., & Karami, M. (2024). Online peer feedback in higher education: A synthesis of the literature. *Educ Inf Technol*, 29, 763–813. <https://doi.org/10.1007/s10639-023-12273-8>
- Khan, N., & Arshad, A. (2010). Improving the speaking ability in English: The students' perspective. *Procedia Social and Behavioral Sciences*, 2(2), 3575-3579. doi: 10.1016/j.sbspro.2010.03.554
- Kim, K. J., Liu, S., & Bonk, C. J. (2005). Online MBA students' perceptions of online learning: Benefits, challenges and suggestions. *Internet and Higher Education*, 8(4), 335-344. doi:10.1016/j.iheduc.2005.09.005
- Kuliahana, A., & Marzuki, A. (2023). Utilizing group discussion technique in developing speaking skill in an EFL classroom. *ENGLISH FRANCA: Academic Journal of English Language and Education*, 7(2), 305-316. <https://doi.org/10.29240/ef.v7i2.8197>
- Kutlimuratova, B., & Abdulla, U. (2023). *Challenges of teaching English as a foreign language for Uzbek students*. 105-110.
- Li, F. (2022). Are you there? Teaching presence and interaction in large online literature classes. *Asian. J. Second. Foreign. Lang. Educ.* 7(45). <https://doi.org/10.1186/s40862-022-00180-3>
- Li, J. (2019). An evaluation of IELTS speaking test. *Open Access Library Journal*, 6(12). 1–17. doi:10.4236/oalib.1105935
- Lopez, C. C., & Davies, M. G. (2015). Switching codes in the plurilingual classroom. *ELT Journal*, 70(1), 67-77. doi:10.1093/elt/ccv056
- Lu, H., & Smiles, R. (2022). The role of collaborative learning in the online Education. *International Journal of Economics, Business and Management Research*, 6(6). doi:10.51505/IJEBMR.2022.6608
- Madison's ePortfolio. (2018). *One student's positives and negatives of group work in an online setting*. <https://u.osu.edu/heise26eport/2018/04/03/the-positives-and-negatives-of-group-work-in-an-online-setting/>
- Madjid, M. (2020). Improving speaking skill by using group work method. *JLA (Journal Lingua Applicata)*, 3(1), 1-9. <https://doi.org/10.22146/jla.50732>
- Melanie, L., Styers, L. M., Peter, A., Van Zandt, A. P., Katherine L., & Hayden, L. K. (2018). Active learning in flipped life science courses promotes development of critical thinking skills. *Life Sciences Education*, 17(3). doi:10.1187/cbe.16-11-0332
- Mulyasari, F. (2018). Patterns of teaching-learning Interaction in the EFL classroom. *TEKNOSASTIK*, 16(2), 41-48. doi:10.33365/ts.v16i2.139
- Munawaroh, M., Ratnawati, E., Ningsih, T., & Nuryana, N. (2022). Enhancing students' communication skills in social studies learning through cooperative learning. *Ta'dib*, 25(1), 71-81.
- Nakatsuhara, F., Inoue, C., Berry, V., & Galaczi, E. D. (2017). *Exploring performance across two delivery modes for the IELTS speaking test: Face-to-face and video-conferencing delivery (Phase 2), IELTS Partners*. <https://ielts.org/researchers/our-research/research-reports/exploring-performance-across-two-delivery-modes-for-the-ielts-speaking-test-face-to-face-and-video-conferencing-delivery-phase-2>
- Namaziandost, E., Shatalebi, V., & Nasri, M. (2019). The impact of cooperative learning on developing speaking ability and motivation toward learning English. *Journal of Language and Education*, 5(3), 83-101. doi:10.17323/jle.2019.9809
- Noor, U., Younas, M., Saleh Aldayel, H., Menhas, R., & Qingyu, X. (2022). Learning behavior, digital platforms for learning and its impact on university student's motivations and knowledge development. *Front. Psychol*, 13:933974. doi: 10.3389/fpsyg.2022.933974
- Obi, M. (2024). Pedagogical strategies for enhancing online collaboration. *Journal of Online and Distance Learning*, 3(1), 41-52.

- Omar, T. (2023). Students' challenges in EFL speaking classrooms. *Academic Journal of Nawroz University*, 12(4), 957-963. <https://doi.org/10.25007/ajnu.v12n4a1809>
- Palloff, R. M., & Pratt, K. (2005). *Collaborating online: Learning together in community*. San Francisco: Jossey-Bass Inc.
- Panhwar, A., & Bellb, J. M. (2023). Enhancing student engagement in large ESL classes at a Pakistani university. *Educational Action Research*, 31(5), 964-980. doi: 10.1080/09650792.2022.2089191
- Paragae, N., & Paper, S. (2023). Innovative teaching strategies in teaching English as a foreign language. *English Teaching and Linguistics Journal*, 4(1), 1-9. https://www.researchgate.net/publication/367499317_Innovative_Teaching_Strategies_in_Teaching_English_as_a_Foreign_Language
- Paul, J., & Jefferson, F. (2019). A comparative analysis of student performance in an online vs. face-to-face environmental science course from 2009 to 2016. *Front. Comput. Sci.* 1(7). doi: 10.3389/fcomp.2019.00007
- Polak, H. (1964). An experiment in Group work. *ELT Journals*, XVIII(4), 170-173. <https://doi.org/10.1093/elt/XVIII.4.170>
- Purland, M. (2011). *Talk a lot. Intermediate book 1*.
- Qadhi, A. S. (2018). Instructional strategies to develop the speaking skill. *International Journal of Linguistic, Literature and Translation*, 1(3), 33-36. Retrieved from <https://al-kindipublisher.com/index.php/ijllt/article/view/317>
- Qiao, H., & Zhao, A. (2023). Artificial intelligence-based language learning: illuminating the impact on speaking skills and self-regulation in Chinese EFL context. *Front. Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1255594>
- Qiu, F. (2022). Reviewing the role of positive classroom climate in improving English as a foreign language students' social interactions in the online classroom. *Front. Psychol*, 13. doi: 10.3389/fpsyg.2022.1012524
- Rai, D., Chhetri, R., & Rigdel, K. (2023). Teachers and Students Perspectives on Group Work in Learning Geography. *Asian Journal of Education and Social Studies*, 47(2), 1-17. <https://doi.org/10.9734/ajess/2023/v47i21017>
- Rampeng, R., & Ramli, R. (2018). Promoting active learning activities to improve students' speaking. *Social Science Learning Education Journal*, 3, 8-14. <https://doi.org/10.15520/sslej.v3i11.2342>
- Rianti, R., Syahid, A., & Qamariah, Z. (2022). The effectiveness of pair work activities on students' speaking anxiety and speaking ability. *Jurnal Educatio FKIP UNMA*, 8(4), 1471-1477. doi:10.31949/educatio.v8i4.3760
- Riaz, N. (2023). *Developing English speaking skills: Providing purposeful learning opportunities*. doi: 10.13140/RG.2.2.31550.25924
- Rosmayanti, V., & Ramli, R., & Rafiq, R. (2023). Building beginners' self-confidence in speaking. *EduLite: Journal of English Education, Literature, and Culture*, 8(1), 192-208. <https://doi.org/10.30659/e.8.1.192-208>
- Rospinah, R., Tenri Ampa, A., & Nappu, S. (2021). The effect of group work activities to improve students speaking skills. *IDEAS: Journal of English Language Teaching and Learning, Linguistics and Literature*, 9(1), 1-6. doi: 10.24256/ideas.v9i1.1902
- Ryan, E., & Poole, C. (2019). Impact of virtual learning environment on students' satisfaction, engagement, recall, and retention. *Journal of Medical Imaging and Radiation Sciences*, 1-8. <https://doi.org/10.1016/j.jmir.2019.04.005>
- Saidah, S. (2024). The impact of students' academic self-confidence on the English learning process in the post-pandemic era. *JOLLT Journal of Languages and Language Teaching*, 12(1), 341-352. doi: <https://doi.org/10.33394/jollt.v%vi%i.8979>
- Sakkir, G., Trisnawati, I., & Nurfadhilah, S. A. (2023). The benefits of the asynchronous online learning Model at post-pandemic Covid-19: Students' perception. *ELT Worldwide. Journal of English Language Teaching*, 10(2), 318-327. file:///C:/Users/SMA/Downloads/51636-132434-1-PB.pdf
- Santiago-Garabieta, M., Zubiri-Esnaola, H., García-Carrión, R., & Gairal-Casadó, R. (2023). Inclusivity, friendship and language learning: boosting collaboration in interactive groups, *Educational Research*, 65(2), 189-203. doi: 10.1080/00131881.2023.2189433

- Saputra, S., Mohd T., Mohd H., Mohd Ariff Albakri, I., Ismail, N., & Mokhtar, M. M. (2023). Online learning experiences for speaking activities among Malaysian undergraduate ESL students. *World Journal of English Language*, 13(7), 355-366. <https://doi.org/10.5430/wjel.v13n7p355>
- Sarker, M., Wu, M., Qian, C., Alam, G. M., & Li, D. (2019). Leveraging digital technology for better learning and education: A systematic literature review. *International Journal of Information and Education Technology*, 9(7), 453-461. <https://doi.org/10.18178/ijiet.2019.9.7.1246>
- Seedhouse, P., & Nakatsuhara F. (2018). *The discourse of the IELTS speaking test: Interactional design and practice*. Cambridge University Press.
- Sert, O. (2005). A comparative analysis of pair work and individual assignments in two ELT Grammar classes. *Journal of Language and Linguistic Studies*, 1(2), 236-253. <https://files.eric.ed.gov/fulltext/ED496120.pdf>
- Shawaqfeh, A., Jameel, A., Ahmad, M., Khasawneh, S., & Khasawneh, M. (2023). Interaction as a Mechanism to enhance English language proficiency in the classroom. *Journal of Language Teaching and Research*, 15(1). doi:10.17507/jltr.1501.25**
- Singh, G., & Richards, J. C. (2006). Teaching and learning in the language teacher education course room: A critical sociocultural perspective. *RELC Journal*, 37(2), 149-174. doi: 10.1177/0033688206067426
- Skrzynski, H. (2005). *Advantages and disadvantages of pair work and group work in the class*. <https://www.edukator.org.pl/2005a/work/work.html>
- Song, C., & Song, Y. (2023). Enhancing academic writing skills and motivation: assessing the efficacy of ChatGPT in AI-assisted language learning for EFL students. *Front. Psychol*, 14. <https://doi.org/10.3389/fpsyg.2023.1260843>
- Song, D., Rice, M., & Oh, E. Y. (2019). Participation in online courses and interaction with a virtual agent. *Interactional Review of Research in Open and Distinguished Learning*, 20(1). doi:10.19173/irrodl.v20i1.3998
- Song, L., Singleton, E., Hill, J. R., & Koh, M. H. (2004). Improving online learning: Student perceptions of useful and challenging characteristics. *Internet and Higher Education*, 7(1), 59-70. doi:10.1016/j.iheduc.2003.11.003
- Suanyot, S., Dibyamandala, J., Mangkhang, C., & Wannapaisan, C. (2022). Enhancing communicative competence in English as a foreign language through hybrid learning. *Journal of Positive School Psychology*, 6(3), 9617-9622.
- Tanveer, M. (2007). *Investigation of the factors that cause language anxiety for ESL/ EFL learners in learning speaking skills and the influence it casts on communication in the target language*. Dissertation, university of Glasgow. doi:10.13140/RG.2.1.1995.1129
- Tavil, Z. (2010). Integrating listening and speaking skills to facilitate English language learners' communicative competence. *Procedia - Social and Behavioral Sciences*, 9, 765-770. <https://doi.org/10.1016/j.sbspro.2010.12.231>
- Terzioğlu, Y., & Kurt, M. (2022). Elevating English language learners' speaking fluency and listening skill through a learning management system. *SAGE Open*, 1-15. doi: 10.1177/21582440221099937
- Thornbury, S. (2005). *How to teach speaking* (Harmer, Ed.). London: Longman.
- Touhid, T. (2018). *Effectiveness of pair work activities in ESL classrooms at the tertiary levels of Bangladesh*. Doctoral Dissertation, Bangladesh: Brac University.
- Tsou, W. (2005). Improving speaking skills through instruction in oral classroom participation. *System*, 38(1), 48-56. doi:10.1111/j.1944-9720.2005.tb02452.x
- Tsymbal, S. (2019). Enhancing students' confidence and motivation in learning English with the use of online game training sessions. *Information Technologies and Learning Tools*, 71(3), 227-235. <https://doi.org/10.33407/itlt.v71i3.2460>
- Unoassignment. (2023). *The future of e-learning: Trends and predictions for 2023 and beyond*. <https://www.unoassignmenthelp.com/future-of-e-learning/>
- Velez, P., & Santos, J. (2023). The Impact of Peer Feedback on Students' Oral Production. *YUYAY: Estrategias, Metodologías & Didácticas Educativas*. 2, 53-67. <https://doi.org/10.59343/yuyay.v2i1.21>
- Venton, B. J., & Pompano, R. R. (2021). Strategies for enhancing remote student engagement through active learning. *Anal Bioanal Chem*. 413, 1507-1512. <https://doi.org/10.1007/s00216-021-03159-0>

- Verma, R., Purushottam, A., Petare, H., Shamim, M., Gupta, T., & Singh, G. (2023). Exploring the impact of virtual learning environments on student engagement and academic achievement. *Journal of Survey in Fisheries Sciences*, 10(1). doi: 10.13140/RG.2.2.23223.91040
- Wang, Q., & Castro, C. D. (2010). Classroom interaction and language output. *English Language Teaching*, 3(2), 175-186. doi:10.5539/elt.v3n2p175
- Wang, Y., Yasmin, F., & Akbar, A. (2023). Impact of the internet on English language learning among university students: mediating role of academic self-efficacy. *Front. Psychol.* 14. doi: 10.3389/fpsyg.2023.1184185
- Warliati, A., Rafli, Z., & Darmahusni, D. (2019). Discussion and think-pair-share strategies on the enhancement of EFL students' speaking skill: Does critical thinking matter? *Journal of English Language Studies*, 4(2), 120. <https://doi.org/10.30870/jels.v4i2.6100>
- Wei, L. (2023). Artificial intelligence in language instruction: impact on English learning achievement, L2 motivation, and self-regulated learning. *Front. Psychol.* 14. <https://doi.org/10.3389/fpsyg.2023.1261955>
- Wiboolyasarini, W., Jinowat, N., Wiboolyasarini, K., Kamonsawad, R., Tiranant, P., & Boonyakitanton, P. (2023). Enhancing L2 speaking proficiency through collaborative tasks in RILCA world: the case of East Asian learners. *Asian-Pacific Journal of Second and Foreign Language Education*, 8, 37. <https://doi.org/10.1186/s40862-023-00209-1>
- Wu, J., & Zhou, R., & Xia, W. (2023). Improving English listening and speaking abilities in online interactive platforms. *International Journal of Emerging Technologies in Learning (iJET)*, 18, 35-49. <https://doi.org/10.3991/ijet.v18i18.43501>
- Xia, Y., Hu, Y., Wu, C., Yang, L., & Lei, M. (2022). Challenges of online learning amid the COVID-19: College students' perspective. *Frontiers in Psychology*, 13. <https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2022.1037311>
- Ying, Y., Siang, W., & Mohamad, M. (2021). The challenges of learning English skills and the integration of social media and video conferencing tools to Help ESL learners coping with the challenges during COVID-19 pandemic: A literature review. *Creative Education*, 12, 1503-1516. <https://doi.org/10.4236/ce.2021.127115>
- Zamani, N., Khalid, R., Shamala, P., Aziz, N., Othman, D., & Whanchit, W. (2022). Exploring learning environment in online learning. *International Journal of Academic Research in Business and Social Sciences*, 12(10), 585–600. doi: 12. 10.6007/IJARBS/v12-i10/14772
- Zhang, D., & Zhou, L. (2003). Enhancing e-learning with interactive multimedia. *IRMJ*, 16, 1-14. doi:10.4018/irmj.2003100101
- Zhou, A. (2023). Investigating the impact of online language exchanges on second language speaking and willingness to communicate of Chinese EFL learners: a mixed methods study. *Front. Psychol.* 14. <https://doi.org/10.3389/fpsyg.2023.1177922>
- Zibusiso Lydia, M., Rao Naidu, V., Zameer Bhat, A., & Frrag, S. (2023). Impact of online tools on the learning experience of students in higher education. *SHS Web of Conferences*, 156, 06003(2023). <https://doi.org/10.1051/shsconf/202315606003>