

Article

The Role of Reciprocal Interaction in Improving English Pronunciation and Speaking Fluency for Intermediate Students in Iraq

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Abstract: This study explores the role of reciprocal interaction in improving English pronunciation and speaking fluency among intermediate EFL students in Iraq. It highlights the challenges faced by learners, including limited exposure to English, traditional grammar-focused teaching methods, and insufficient practice opportunities. The research investigates how reciprocal interaction, involving cooperative tasks, peer feedback, and structured activities, enhances students' oral proficiency. The methodology includes a quasi-experimental design with pre-test and post-test assessments, engaging 90 participants in interactive learning sessions. The findings demonstrate significant improvements in students' pronunciation accuracy, fluency, and confidence, attributed to dynamic conversational exchanges and immediate feedback. By integrating sociocultural and linguistic theories, the study emphasizes the importance of interactive environments for skill acquisition. Implications suggest adopting reciprocal interaction as a core pedagogical approach in Iraqi EFL classrooms to address learners' specific needs and promote effective language use. Additionally, this research underscores the necessity for curriculum reforms to prioritize pronunciation and fluency in language instruction. Future research should further explore long-term impacts and scalability of these methods in varied educational contexts.

Keywords: Reciprocal Interaction, English Pronunciation, Speaking Fluency.

1. Introduction

Language learning procedures depend on the interaction between learners and their environment. Unfortunately, the conditions for English-speaking individuals residing in Iraq, along with their offspring, do not meet these standards. The expected competency in the English language among both the public and private sectors in Iraq may be achieved through significant reforms in educational institutions and higher learning establishments. Improved English-teaching approaches may be seen with increased focus on pronunciation. Awan. Students who memorise vocabulary and grammatical norms in class necessitate focused attention on designated, non-competitive readings. Because the derivation of terms and expressions in sentences is predominantly informational rather than procedural, students fail to develop pronunciation abilities, contrary to the assumptions of advanced speakers Boers. The pronunciation and speech fluency of newly trained EFL individuals are influenced by their ambient pronunciation Chau. This predicament is exacerbated by the characteristics of most academic courses, which primarily focus on translation, vocabulary, and grammatical clarification. The lack of a curriculum or instruction in pronunciation is irrelevant, as it is generally not evaluated. Opportunities for engagement outside of lectures are virtually nonexistent for most students and has no practical significance in daily life. Moreover, research including Japanese participants shown significant enhancement in stress management following an intensive training day. Observations suggest that enhancements in phonetic skill are intrinsically connected to its practical use in verbal communication, identified as a

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prevalent cause of errors for learners and a crucial emphasis for British educators instructing English as a second language. Furthermore, Spanish assessors awarded higher evaluation rates to English learners who underwent specific instruction in stress timing than to those who did not receive such training. Research Context The precise articulation of English and fluent discourse are the principal objectives of almost all English language learners. To improve the communication skills of EFL students, it is crucial to continuously implement a variety of tasks, encompassing speaking, listening, and practicing tongue twisters. Effective oral communication through written linguistic symbols and precise pronunciation presents difficulties for nearly all EFL learners in some Middle Eastern countries, particularly in Iraq. However, the execution of pronunciation exercises in higher education in Iraq is inadequate. The adoption of English Language Teaching (ELT) in Iraq's Kurdish Territory began in 1989, when some elements of English language proficiency, especially pronunciation, were negatively impacted. Moreover, the instruction of the English language becomes compulsory beginning in the third grade of primary schools in Iraq. The number of learners studying English is steadily increasing, yet the crimson standards are diminishing because to numerous contradictions. The pronunciation of EFL learners advances only slightly. Extended vocabulary, unusual irregular tense forms, and proper nouns and modifiers are often mispronounced. Intermediate EFL students experience pronunciation difficulties due to their only exposure to the English language via visual aids. EFL learners in Iraq encounter limited exposure to the English language owing to its infrequent use in everyday life. Moreover, evaluations are created by instructors instead of employing standardised materials from English-speaking countries, aiming to assess all facets of English simultaneously, which has, in turn, considerably influenced teaching qualifications, including pronunciation practices.

Statement of the Problem

Pronunciation is one of the most difficult skills for language learners, although it is essential for efficient verbal communication. Poor pronunciation may impede others' understanding of the speaker. Comprehension may be difficult if the speaker fails to articulate effectively. Insufficient pronunciation is connected with a lack of discipline and education Almusharraf [1]. Some persons thrive at mastering foreign languages, mimicking the sounds with near-native precision, while others, despite their complete proficiency, are easily identifiable by their foreign accent. The latter form may face listener bias, notwithstanding the clarity of the meaning. Consequently, it is imperative for language learners to achieve competent pronunciation, or at a minimum, to enhance it to the greatest extent feasible. English language students face numerous challenges, including unfamiliar grammar, vocabulary, phonetics, and syntactic rules, among others. This page compiles common challenges faced by speakers of English as a Second Language. Non-native English speakers, especially those from Iraq, frequently lack the time to improve their proficiency; nonetheless, there are simple and entertaining techniques to boost their pronunciation. Pronunciation involves significantly more than just accent.

Significance of the Study

This study is essential as speaking fluency significantly improves the overall communication skills that English learners in Iraq seek to develop. In a non-English-speaking nation, English is rarely employed beyond the educational environment. The absence of practice poses considerable difficulties for students in speaking English, especially in identifying their shortcomings in oral proficiency. This study aims to address these difficulties. This study is important since it reinforces the established understanding of the requirement of interaction in language acquisition. This pertains to the challenge faced by intermediate students who, despite years of study, struggle to communicate successfully in English; they cannot translate their classroom knowledge into practical communication situations. This study aims to aid educators and learners in improving the

oral production skills of intermediate students. It investigates the impact of reciprocal interaction on improving students' pronunciation and oral fluency performance. The analysis investigates how reciprocal interaction improves the pronunciation and fluency of participating students by promoting accurate, smooth, and coherent speaking through involvement with their interlocutors.[2] The present study aims to ascertain the impact of mutual interaction on enhancing English pronunciation and speaking fluency in middle school students in Iraq.

Present research may benefit:

Firstly: For secondary school students, facilitate the development of auditory communication skills in the English language among learners, particularly in the context of reciprocal contact inside the classroom setting for educational purposes. It facilitates the ongoing advancement of learners and encourages them to explore new avenues within their specialization.

Secondly: Pertaining to educational institutions: Enhancing the scientific and technical proficiency of learners in English pronunciation communication Fluency in speaking will be seen throughout the school system.

Maintaining alignment with technical advancements and contemporary educational practices.

Thirdly: For Scientific Inquiry: Current study may serve as the foundation for innovative studies and investigations in middle schools about mutual interaction environments and the development of communication abilities and enhance English pronunciation and verbal fluency.

Research Question

The research seeks to a solution to the following principal question:

How can an adaptable learning environment be constructed, and what is its efficacy in enhancing English pronunciation, speaking fluency, and learning aptitude among middle school students?

The subsequent enquiries stem from this primary question:

1. Which communication skills should be cultivated in middle school students?
2. What are the pedagogical and technical criteria for constructing the English language learning environment?
3. What is the significance of mutual interaction in the development of cognitive and performance dimensions?

Research Hypotheses

The current research seeks to validate the following hypotheses:

H01. There is a statistically significant difference at the level of (0.05) between the average scores of the members of the first experimental group, and the average scores of the members of the control group in the post-application of the English speech measurement test and the fluency of speaking among middle school students.

H02. There is a statistically significant difference at the level of (0.05) between the average scores of the experimental group members and the average scores of the control group members in the post-application of the English pronunciation and speaking fluency of middle school students.

H03. There is a statistically significant difference at the level of (0.05) between the average scores of the experimental group members, and the average scores of the control group members in English pronunciation and speaking fluency among middle school students.

Research Objectives

The current research aims to:

1. Developing the cognitive aspects related to the communication skills of English pronunciation and fluency of speaking among middle school students.
2. Developing the performance aspects related to the communication skills of English pronunciation and fluency of speaking among middle school students.

3. Develop an educational design for an effective mutual learning environment.
4. Identify the effectiveness of the proposed learning environment in developing the cognitive and performance aspects Communication skills English pronunciation and speaking fluency among middle school students.
5. Identify the effectiveness of the proposed learning environment in developing the learning ability of middle school students.

Research Limitations:

1. The research will be limited to a sample of middle school students in Misan Governorate for the academic year 2022-2023, first semester.
2. Four units of the English language course for students of the second intermediate grade, which are (Unit 1, Unit2, Unit 3, and Unit 4).

2. Materials and Methods

Research Design and Methods

The researcher will employ two research methodologies:

The descriptive analytical approach is employed to delineate and analyze the relevant literature, facilitating the development of the theoretical framework and reviewing prior research pertinent to the study subject. Assess the training requirements of middle school students regarding English pronunciation proficiency and fluency in spoken English. The semi-experimental method is employed to validate hypotheses and ascertain the effect of the independent variable. The reciprocal influence of active learning within the educational context on the dependent variable of cognitive and performance aspects, as well as the acquisition of English pronunciation abilities and speaking fluency. A quantitative approach was utilized for the study Mohajan defines quantitative research as the systematic empirical analysis of observable phenomena by statistical, mathematical, or computational techniques. The researcher utilizes statistics to analyze the data. This study utilized a pretest quasi-experimental design to evaluate the relative effects of cooperative and teacher-centered learning modalities on university students' performance in enhancing reading abilities during English sessions. Goldfarb, Tucker, and Wang characterizes a quasi-experiment as "an empirical investigation utilized to evaluate the causal impact of an intervention on its intended population." It mimics a teacher-centered experimental design. A quasi-experiment allows the researcher to assign subjects to treatment conditions based on predetermined criteria.

The research sample:

The study population consisted of two groups of second-grade intermediate students from Al-Zawraa Intermediate and Al-Karrar Intermediate Schools in Al-Amara Markar in Misan Governorate. They comprised 60 students from the second intermediate grade in Misan Governorate, divided into two experimental groups and one control group, each comprising 30 students. The participants were randomly selected, and measurement tools were administered before the experimental treatment. Following the completion of the experiment, the measurement tools were applied dimensionally. One-stage random sampling is a technique that combines cluster random sampling with individual random sampling.[3]

Search Procedures

To address the research questions and ascertain the validity of its hypotheses, the researcher adheres to the subsequent steps:

1. Developing a questionnaire to assess English pronunciation skills and speaking fluency in middle school students by examining relevant Arab and international studies and literature, and constructing the necessary tools for study.
2. Refine the skills list by presenting it to a panel of arbitrators and specialists in English language, instructional design, curricula, and pedagogical methods, subsequently revising the list based on expert feedback to finalise the compilation of speech and speaking skills.

3. Compile a list of design standards for the mutual interaction learning environment, thereafter offer it to a panel of experts and specialists, implement necessary modifications, and finalise the design standards list.
4. Formulate a list of educational objectives to be attained in preparation for constructing the suggested learning environment, and offer it to a panel of experts and specialists for necessary revisions.
5. Identify the scientific information essential for cultivating pronunciation skills in accordance with the objectives, thereafter presenting it to a panel of experts and specialists, and implementing the necessary modifications.
6. Construct the proposed adaptive learning environment in accordance with the fundamental phases of the instructional design model as follows:
 - a) Study and Analysis Phase.
 - b) Design Phase.
 - c) Production Phase.
 - d) Utilisation Phase.
 - e) Scheduling Phase.

Developing study aids, which are enumerated as follows:

A cognitive assessment designed to evaluate the cognitive dimensions of English pronunciation proficiency and speaking fluency, to be presented in its preliminary version to a panel of adjudicators for modifications, followed by the preparation of its final iteration.

A note card to assess the performance of English pronunciation abilities and speaking fluency, to be presented in its preliminary form to a panel of evaluators for revisions, followed by the preparation of a final version.

Spectrum of learning capabilities among middle school kids

Evaluating the students within the survey sample, executing the exploratory experiment, assessing the reliability of the research instruments, and evaluating potential challenges the researcher may encounter during implementation, along with the duration necessary for intervention.

Randomly selecting the study sample and partitioning it into two groups.

Conducting exploratory experiments and instructing students on utilising the suggested mutual interaction learning environment.

Search Instruments

To answer the question of the study, and test its hypothesis, the researcher prepared and built a note card to pronounce the words in a way True as follows:

1. Determine the target of the card.
2. Build the note card in its initial form.
3. Verify the authenticity of the note card
4. Calculate the stability of the note card.
5. Build the note card in its final form.

This is detailed below:

Determine the goal of the note card

The aim of the card is to measure the impact of using YouTube in teaching the correct pronunciation of English to kindergarten children.

Building the note card in its initial form

The correct pronunciation skill observation card was prepared and built by referring to the observation cards in the Chang study and the study of Hu et al. The card has been prepared in proportion to the subject and age group specified in the current study.

Believe the study tool (note card)

Content Authenticity

The sincerity of the study tool (observation card) was verified before its application by presenting it in its initial form to a group of arbitrators with competence, numbering (7) arbitrators to take their observations on the paragraphs and areas of the card, and it was

modified according to their opinions, and the card came out in its final form consisting of four areas and (27) paragraphs.

Honesty of internal consistency

The validity of the internal consistency of the observation card was also verified by calculating the correlation coefficient of the paragraph with its domain as follows: Table (1) shows the values of the correlation coefficients and the level of significance for the first domain (proficient in pronouncing animal names correctly).

Table 1. Values of correlation coefficients and significance level for the first domain (Proficient in pronouncing Unit 1: A school magazine incorrectly)

Term	Correlation coefficient	Sig
1	0.982	0.000
2	0.984	0.000
3	0.967	0.000
4	0.988	0.000
5	0.988	0.000
6	0.972	0.000
7	0.926	0.000
8	0.953	0.000
9	0.924	0.000
10	0.976	0.000

It is noted from the results of the analysis that there are high correlation coefficients and statistically significant at ($0.05 > a$) and this enhances the validity of the construction of the paragraphs of the first field.

Table (2) presents the association coefficients and the significance level for the second domain, which pertains to the proficiency in accurately pronouncing Unit 2: Healthy lifestyle from 11 to 20.

Table 2. The values of correlation coefficients and the significance level of the second field are proficient in pronouncing the Unit 2: Healthy lifestyle from 11-20 in a wayRight)

Term	Correlation coefficient	Sig
11	0.963	0.000
12	0.954	0.000
13	0.988	0.000
14	0.992	0.000
15	0.992	0.000
16	0.992	0.000
17	0.977	0.000
18	0.997	0.000
19	0.992	0.000
20	0.966	0.000

It is noted from the results of the analysis that there are high correlation coefficients and statistically significant at ($0.05 > a$). This reinforces the sincerity of the second area paragraph construction.

Table (3) presents the association coefficients and the significance levels for the third domain, Proficient in pronouncing the terms of Unit 3: Sports accurately.

Table 3. Values of correlation coefficients and significance level for the third domain) Proficient in pronouncing the words of the Unit 3: Sports correctly.

Term	Correlation coefficient	Sig
21	0.979	0.000
22	0.989	0.000
23	0.989	0.000
24	0.940	0.000

25	0.990	0.000
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It is noted from the results of the analysis that there are high correlation coefficients and statistically significant at (0.05 >). This reinforces the sincerity of the third area paragraph construction.

Table (4) presents the correlation coefficients and the significant level for the fourth field, Proficient in pronouncing the two sentences in the format of "Unit 4: Review."

Table 4. Correlation coefficient values and significance level for the fourth domain Proficient in pronouncing the two sentences correctly)

Term	Correlation coefficient	Sig
26	0.999	0.000
27	0.995	0.000

The results of the analysis indicate the presence of high correlation coefficients and statistically significant at (0.05).

This reinforces the sincerity of the construction of the paragraphs of the fourth area.

It is noted from the result of the analysis of the four domains that there are complete and positive correlation coefficients and statistically significant at 0.05 = a, which means the validity of each paragraph of the card and therefore the validity of the note card.

Stability of the study instrument (observation card)

The first method: The stability coefficient of the scale was found by the Cronbach's alpha method (Cronbach's alpha) as shown in Table 5.

Table 5. Results of stability verification using Cronbach alpha

Field	Cronbach's alpha
First	0.991
Second	0.992
Thirdly	0.986
Fourthly	0.999
Overall average	0.992

The preceding table indicates that the Cronbach's alpha coefficient for overall performance is 0.992. This signifies that the card have a high level of stability.

Execute the fundamental experiment of the study as outlined below:

1. Preliminary application of research instruments to the research sample.
2. Empirical processing of instructional material.
3. Utilise the research instruments subsequently on the study sample (all instruments).
4. Application of suitable statistical techniques to obtain and analyse results within the context of the theoretical framework.

Validity Test

Validity is the essential idea to consider when designing and selecting instruments to guarantee their validity. Aithal & Aithal [4] define validity as the alignment between the collected data and the actual data related to the experimental subject. The researchers utilised item validity in this investigation. Anas asserted that the item validity of a test pertains to the accuracy of evaluating a single item independently from the entire test. The researchers utilised the Pearson correlation, a product moment correlation calculation, to evaluate the item validity of the tests. The researcher evaluated the significance of the data by juxtaposing the Corrected Item-Total Correlation scores for each item against the two-tailed correlation coefficient table. Perform a test with a 0.5% deviation. If the Corrected Item-Total Correlation score surpasses the correlation coefficient criteria by 0.5% (0.421), the item is considered legitimate. [4]

Statistical methodologies

To address the study's enquiries, the researcher employed statistical analyses utilising the SPSS software for social sciences, calculating arithmetic means and standard deviations of the study sample's scores in the pre-and post-assessment of the control and

experimental groups regarding the achievement test in English pronunciation skill and speaking fluency.

3. Results

The results of the study, which aimed to identify the impact of using mutual interaction in teaching the correct pronunciation skill of the English language and speaking among middle school students in Misan Governorate, will be presented by answering the following main question:

What is the effect of using mutual interaction in teaching the correct pronunciation of English and fluency in speaking among middle school students, compared to the usual method?

To answer this question, and to test the hypothesis related to it, the arithmetic averages and standard deviations of the performance of middle school students on the areas of the observation card were calculated. Tables (8) show the arithmetic averages and standard deviations of the responses of the experimental and control groups to the paragraphs of the four areas in the observation card. Table (9) shows the arithmetic averages and standard deviations of the overall performance of the members of the two study groups on the card domains. The arithmetic averages of all the items of the card are classified as follows:

Form	1	to	1.80	Weak
Form	1.81	to	2.60	medium
Form	2.61	to	3.40	Good
Form	3.41	to	4.20	Very good
Form	4.21	to	5	Excellent

Table 6. Arithmetic averages and standard deviations of experimental group responses to observation card paragraphs.

Field	Term	Post test		
		M	SD	Salary
First	1	4.94	0.20	2
	2	4.94	0.20	2
	3	4.86	0.34	4
	4	4.99	0.01	1
	5	4.85	0.34	4
	6	4.89	0.28	3
	7	4.58	0.49	6
	8	4.94	0.21	2
	9	4.80	0.38	5
	10	4.89	0.28	3
	Overall average	4.87	0.27	
Second	11	4.58	0.49	5
	12	4.71	0.44	4
	13	4.99	0.01	1
	14	4.99	0.01	1
	15	4.99	0.01	1
	16	4.99	0.01	1
	17	4.76	0.51	3
	18	4.93	0.20	2
	19	4.99	0.01	1
	20	4.53	0.58	6
	Overall average	4.84	0.17	
Thirdly	21	4.99	0.01	1

	22	4.99	0.01	1
	23	4.99	0.01	1
	24	4.67	0.47	2
	25	4.99	0.01	1
	Overall average	4.92	0.10	
Fourthly	26	4.30	0.67	7
	27	4.30	0.67	7
	Overall average	4.30	0.67	

Table (6) indicates that the overall mean response of the sample members on the first domain (Unit 1: A school magazine) was (4.87), with a total standard deviation of (0.15). In paragraph (4), the term attained the highest average score of (4.99), while paragraph (7), featuring the term, garnered the lowest average score of (4.58). The responses exhibited exemplary pronunciation of all the words in the field. The aggregate average response of the participants in the second (Unit 2: Healthy lifestyle), concerning the right pronunciation of numerals from 11- 20, was 4.83, with a standard deviation of 0.13. Paragraphs 13, 14, 15, 16, and 19 attained the greatest average score of 4.99, but paragraph 20 received the lowest average score of 4.52. This indicated that the respondents' pronunciation of all domain numbers was exemplary.

The total mean of the respondents' replies in the third domain (Unit 3: Sports) was 4.92, with a standard deviation of 0.08. Paragraphs 21, 22, 23, and 25 attained the highest average score of 5.00, while paragraph 24, pertaining to the term, garnered the lowest average of 4.67. This indicated that the respondents' pronunciation of all the terms in the field was exemplary. The total mean of the respondents' answers for the fourth area (Unit 4: Review) was 4.30, with a standard deviation of 0.63. Both paragraphs in the field had the same average of 4.30. The respondents' pronunciation of the two sentences was exemplary.

Table 7. Arithmetic averages and standard deviations of the responses of control group members to observation card paragraphs

Field	Term	Post test		
		M	SD	Salary
First	1	2.94	0.20	6
	2	2.94	0.20	6
	3	2.94	0.20	6
	4	2.94	0.20	6
	5	2.89	0.29	6
	6	2.84	0.34	6
	7	2.84	0.34	6
	8	2.79	0.39	6
	9	2.70	0.45	6
	10	2.99	0.31	5
		Overall average	2.88	0.29
Second	11	2.08	0.29	7
	12	2.37	0.48	7
	13	2.99	0.31	6
	14	3.03	0.20	5
	15	3.03	0.20	5
	16	3.03	0.20	5
	17	3.03	0.20	5
	18	3.03	0.20	5
	19	3.03	0.20	5
	20	1.99	0.31	8
		Overall average	2.76	0.25

Thirdly	21	3.13	0.34	5
	22	3.18	0.39	5
	23	3.18	0.39	5
	24	2.75	0.54	6
	25	3.13	0.34	5
	Overall average	3.07	0.40	
Fourthly	26	2.99	0.31	6
	27	2.99	0.31	6
	Overall average	2.99	0.31	

Table (7) indicates that the overall mean response of the sample members on the first domain (Unit 1: A school magazine) was (2.87), with an overall standard deviation of (0.11). Paragraph 10, associated with the term, attained the highest average score of 2.99, while paragraph 9, linked to the term recorded the lowest average score of 2.69. This indicated that the respondents' pronunciation of all the terms in the field was proficient. The average score of the respondents in the second domain (Unit 2: Healthy lifestyle from 11-20) was 2.66, with a standard deviation of 0.16. Paragraphs 14, 15, 16, 18, and 19 attained the highest average score of 3.02, while paragraph 20 recorded the lowest average score of 1.99. The respondents exhibited proficient pronunciation of all domain numbers. The total mean of the sample members' replies in the third domain (Unit 3 Sports) was 3.06, with a standard deviation of 0.31. Paragraphs (22-23) attained the greatest average score of 3.18, while paragraph (24) recorded the lowest average of 2.75, corresponding to the term. This indicated that the respondents' pronunciation of all the terms in the field was proficient. The average response of the sample members in the fourth field, regarding the accurate pronunciation of Unit 4: Review, was 2.99, with an overall standard deviation of 0.00. The two paragraphs received identical averages (2.99), indicating that the pronunciation of the sample members in both Unit 4 Review was satisfactory.

Table 8. Arithmetic averages and standard deviations of the performance of the study group members on the observation card domains

Field	Group	M	SD
First	Experimental	4.87	0.14
	Control	2.88	0.12
Second	Experimental	4.84	0.14
	Control	2.66	0.16
Thirdly	Experimental	4.92	0.08
	Control	3.03	0.32
Fourthly	Experimental	4.30	0.63
	Control	2.99	0.31
Overall average	Experimental	4.73	0.24
	Control	2.89	0.22

Table (8) shows that there are differences between the arithmetic averages of the performance of the study group members on the observation card domains. The experimental group that studied using YouTube obtained an arithmetic average of (4.87) for the first domain, which is higher than the arithmetic average of the control group that studied in the usual way, as its average was (2.87). The experimental group obtained in its performance in the second area an arithmetic average of (4.83), which is higher than the average obtained by the control group of (2.66). The experimental group also obtained in its performance in the third area an arithmetic average of (4.91), which is also higher than the arithmetic average of the control group, which amounted to (3.07). The experimental group obtained in its performance on the fourth area an arithmetic average of (4.29), which is higher than the arithmetic average of the performance of the control group, which was (2.99) amounted. The total total performance of the average

performance of the experimental group that was studied using mutual interaction was (4.82), which is higher than the total total of the average performance of the control group that was studied using the usual method, which amounted to . 2.83). To answer the study question, the researcher tested the null hypothesis, which states:

There were no statistically significant differences at the significance level (0.05) in teaching the skill of correct pronunciation in English and speaking at all among middle school students due to the use of mutual interaction, compared to the usual method.

To verify this hypothesis, a test (T) was performed for two independent samples, known as, Table (9) shows the results of the analysis (Independent Sample T-Test).

Table 9. Test Results (T) Analysis of Two Independent Samples

Field	T	df	Sig
First	44.97	58	0.000
Second	41.68	58	0.000
Thirdly	23.67	58	0.000
Fourthly	8.33	58	0.000
Overall average	29.66	58	0.000

The preceding table indicates statistically significant differences at the 0.000 level between the average performance of the experimental and control study groups across the four areas of the observation card individually, as well as for the observation card as a whole, favouring the experimental group. The observed differences demonstrate the impact of mutual interaction on teaching accurate English pronunciation and speaking fluency, as indicated by an effect size of 0.41 based on the square of T. Consequently, we dismiss the null hypothesis and endorse the alternative hypothesis. Statistically significant changes exist at the 0.05 significance level in teaching accurate English pronunciation and speaking among middle school students due to the implementation of mutual interaction, as opposed to the conventional method [5].

4. Discussion

The research results unequivocally demonstrate the superiority of the experimental group, which utilized an adaptive learning environment integrating active learning and mutual interaction. This was assessed through achievement tests, observation cards, and learning ability scales compared to the control group. These findings can be attributed to the myriad advantages inherent in adaptive learning environments, which are adept at identifying individual learning patterns and styles, thereby facilitating the application of tailored educational and cognitive methodologies. Distinct and consequently more efficient and effective environments place the student in control of their learning rather than the teacher, as each student possesses unique experiences that shape their knowledge and needs. This approach informs teachers about students' progress levels and the challenges they encounter, allowing for analysis and the development of solutions to address these difficulties. Additionally, it emphasizes the importance of considering learners' characteristics and prior experiences effectively, as the interactive learning environment sustains learner profiles based on these attributes and experiences. Mutual interaction learning encompasses animations, videos, interactive graphs, and other web features that are introduced as required by the learner, thereby enhancing student motivation and rendering the experience more engaging and appealing for students of varying levels, abilities, and preferences [6].

This aligns with the findings of Bsharat and Barahmeh ,Che, and is corroborated by the present research. The results can be attributed to the advantages associated with active learning and its methodologies utilized in the current research, as stated by Yamauchi[7]. Active learning promotes engagement with the English pronunciation among slow learners, facilitating participation in diverse educational activities [8]. It fosters individual and social responsibility while enhancing collaborative skills. Consequently, students acquire English pronunciation concepts and fluency, becoming more cooperative than

those in competitive or solitary learning environments [8]. This approach cultivates effective interpersonal interactions and numerous skills for mutual engagement, as well as improving listening abilities. To ascertain the significance of each experience encountered while collaborating in groups, he cultivates curiosity, fosters positive attitudes towards research, enhances his eagerness to resolve enquiries, and promotes the advancement of critical thinking through participation in cooperative groups, wherein the teacher prompts students to contemplate the posed question or problem, encouraging collective efforts to arrive at the correct solution. The dynamic environment for learning and fostering ongoing interactions significantly promotes innovation, in contrast to conventional methods. The reciprocal interaction aids in sustaining the learning trajectory throughout the student's sequential education [9]. Upon mastering a goal, the student promptly advances to a new, challenging objective. Conversely, a student struggling to achieve a specific goal is not left to endure frustration; instead, immediate corrective measures are provided to facilitate their analytical learning progress. Decomposing teaching skills into sub-tasks or analysing the problem into sub-problems enables the student to grasp each reciprocal interaction effectively, facilitating successful learning without encountering failure [10]. The gradation methods, ranging from simple to complex, and the adaptability to present them according to each student's level via reciprocal interaction, motivate students of all levels and enable them to explore and critically analyse these concepts at various stages of their educational journey [11]. In-person interaction connection fosters learning, as learners aid, assist, motivate, and support one another's educational endeavours [11]. This contact occurs and promotes learning as learners elucidate problem-solving methods to one another [12]. Defines the term interactive as the active engagement within a lesson and the management of the educational sequence of a study program, characterised by the learner's responses to provided information, as well as a communicative dialogue and reciprocal influence between the learner and an educational electronic program. Active learning is predicated on the diverse activities undertaken by the learner, leading to behaviours contingent upon the learner's active and positive engagement in the educational context, aligned with their abilities, preparations, aspirations, and scientific, artistic, and social inclinations [13]. Furthermore, active learning is characterised as a pedagogical approach that involves learners in tasks that compel critical thinking; however, fostering the learner's motivation and training them to Lombardi [14].

5. Conclusion

The findings of the current study indicated that the cooperative learning style significantly impacted the development of reading skills in English among university students in Masin, Iraq. Furthermore, a comparison of the efficacy of cooperative learning and teacher-centered instruction revealed through an independent sample t-test that the experimental group utilising the cooperative approach outperformed the control group receiving teacher-centered instruction. The results of the present study align with earlier research conducted by Slavin [15] and Isiaka Aмоса Gambari and Olumoriḡ [16], which demonstrated that cooperative learning models significantly impact students' performance. Moreover, the findings of the present study align with those of Mahamod and Somasundram [17], who identified a significant disparity in achievement between learners utilising cooperative learning and those engaged in teacher-centered learning. The current research findings align with those of Mahmood and Ahmad [18], which indicated that learners utilising the cooperative learning method outperformed those engaged in the teacher-centered approach. The findings of the current study possess multiple pedagogical implications for the enhancement of curriculum and instructional design. Initially, students must comprehend the essence and objectives of cooperative learning practices. Consequently, language instructors must strive to enhance their understanding of the benefits of utilising diverse cooperative learning techniques. In Iraqi

EFL educational environments, cooperative learning is a crucial approach for students to comprehend the use of English language elements in both the classroom and daily communication. In the Iraqi context, proficient language students may serve as informants for those encountering difficulties in English language instruction regarding the use of various elements in different circumstances[19]. Consequently, language instructors must recognise the importance of cooperative learning styles and assess whether students are cognisant of the objectives of acknowledging the diverse applications of these new pedagogical approaches, rather than merely focussing on the teacher-centered model [20]. Furthermore, it is essential for curriculum and material designers in Iraq to consider the enhancement of new language learning styles to foster communicative competence in teacher-centered classes [21].

Recommendations for research

Based on the findings of the present investigation, the researcher proposes the following recommendations:

1. Utilising the collaborative learning environment of research to cultivate various skills across several educational levels.
2. The necessity to focus on the utilisation of learning settings and the reciprocal interaction among students within various curricular formats.
3. It is essential to focus on English pronunciation and speaking fluency, and to apply these skills primarily throughout diverse academic disciplines.
4. Furnishing all requisite technologies and infrastructure for collaborative engagement environments tailored to students of varying levels throughout diverse educational stages.
5. Utilising the interactive learning environment to amalgamate active learning with the English language and research for the enhancement of diverse skills.

Proposed Investigation

1. Creating a collaborative learning environment to amalgamate instructional methodologies for enhancing students' English language proficiency.
2. The impact of creating a collaborative engagement environment for enhancing English language proficiency in augmented reality.
3. A virtual learning environment utilising active learning methodologies to enhance educational content producing skills.
4. Creating a mobile learning environment that fosters reciprocal engagement to enhance the conversational abilities of middle school students.

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