

The Role of Virtual Reality-Assisted Teaching in Developing Pragmatic Competence among EFL Learners"

A.L Shahlaa Shakir Mahmood Ali

Karbala Education Directorate

englishteacher8791@gmail.com

Abstract

The purpose of this study is to examine how intermediate-level English as a foreign language learners' pragmatic competence is developed using virtual reality-supported education. With the sample split into two groups—one taught using virtual reality applications and the other using the conventional approach—the study used a quasi-experimental methodology. Along with a questionnaire to gauge teachers' and students' attitudes towards utilising the technology, pre-, post-, and delayed examinations were given. The experimental group outperformed the group on all exams, according to the data, demonstrating how well virtual reality works to give pupils more precise and socially important pragmatic abilities. The results of the postponed tests also showed the experience's ongoing educational value, demonstrating virtual reality's capacity to promote long-term learning. Additionally, questionnaire answers showed that teachers and students had favourable opinions of this technology since it helped them become less nervous when speaking and increased their interest and involvement in class. As a result, the study demonstrates that incorporating virtual reality technologies into English language instruction is a viable strategy for fostering students' genuine communication abilities and is a qualitative enhancement of conventional teaching techniques.

Keywords: Virtual reality, pragmatic competence, modern teaching methods, motivation, oral communication.

دور التدريس المدعوم بالواقع الافتراضي في تنمية الكفاءة التداولية لدى متعلمي اللغة الإنجليزية كلغة أجنبية

م.م شهلاء شاكر محمود علي المياح
مديرة تربوية كربلاء

المخلص

يهدف هذا البحث إلى استقصاء أثر التدريس المدعوم بتقنية الواقع الافتراضي في تنمية الكفاءة التداولية لدى متعلمي اللغة الإنجليزية كلغة أجنبية في المرحلة المتوسطة. اعتمد البحث على تصميم شبه تجريبي، حيث قُسمت العينة إلى مجموعتين: تجريبية درست باستخدام تطبيقات الواقع الافتراضي، وضابطة درست بالطريقة التقليدية. جرى تطبيق اختبارات قبلية وبعديّة ومؤجلة، إضافة إلى استبانة لقياس اتجاهات الطلبة والمعلمين نحو استخدام التقنية. أظهرت النتائج تفوق المجموعة التجريبية بشكل ملحوظ في جميع الاختبارات، مما يشير إلى فاعلية الواقع الافتراضي في إكساب الطلبة مهارات تداولية أكثر دقة وملاءمة للسياقات الاجتماعية. كما بينت نتائج الاختبار المؤجل استمرارية الأثر التعليمي للتجربة، مما يعكس قدرة الواقع الافتراضي على دعم التعلم طويل المدى. من جانب آخر، كشفت استجابات الاستبانة عن اتجاهات إيجابية لدى كل من المعلمين والطلبة تجاه هذه التقنية، حيث أسهمت في تقليل قلق التحدث وزيادة الدافعية

والمشاركة الصفية. وعليه، يؤكد البحث أن دمج تقنيات الواقع الافتراضي في تعليم اللغة الإنجليزية يمثل مدخلاً واعدًا لتطوير مهارات التواصل الحقيقي لدى المتعلمين، ويشكل إضافة نوعية للطرائق التقليدية المعتمدة في التعليم.

الكلمات المفتاحية: الواقع الافتراضي، الكفاءة التداولية، طرائق التدريس الحديثة، الدافعية، التواصل الشفهي.

Introduction

Despite significant advances in English as a foreign language (EFL) teaching methods, the focus of educational programs remains on the structural dimension of language—grammar and vocabulary—rather than on the pragmatic dimension that enables learners to use the language in real-life communicative situations. Learners often find it difficult to choose the appropriate language choices when performing linguistic acts such as requesting, apologizing, refusing, or offering a compliment, which can lead to misunderstandings or socially inappropriate speech. With technological advancements, virtual reality (VR) environments have emerged as a promising tool that offers learners the opportunity to immerse themselves in realistic situations and allows them to practice the language in natural contexts while receiving immediate feedback. However, previous studies in this area remain limited, often focusing on developing fluency or reducing stuttering without systematically addressing pragmatic competence specifically. This is where the problem of this research emerges. It aims to investigate the effect of virtual reality-assisted instruction on developing pragmatic competence among English language learners, comparing its effectiveness with traditional teaching, studying the sustainability of the effect after a follow-up period, and exploring students' and teachers' perceptions of the effectiveness of this technology.

The research is based on the main assumption that virtual reality-based instruction contributes significantly to developing pragmatic competence among English language learners compared to traditional methods. Accordingly, the study hypothesizes that students in the experimental group who receive training in virtual reality environments will perform statistically significantly better than students in the control group in the post-test, controlling for pre-test variables. It also hypothesizes that this effect will not only be permanent, but will persist during the post-test several weeks later, indicating virtual reality's ability to enhance the retention of pragmatic knowledge. Furthermore, the study suggests that students' and teachers' perceptions of the experience are positive, as virtual immersion is expected to contribute to reducing speaking anxiety and enhancing motivation to participate, which positively impacts the effectiveness of the educational process.

The importance of this research stems from its focus on an essential dimension of foreign language learning, namely pragmatic competence. This dimension is

no less important than structural aspects such as grammar and vocabulary, and may even surpass them in realistic communicative contexts. A student who possesses a strong and broad vocabulary but is often drawn to socially appropriate knowledge remains unable to achieve effective communication. Hence, the research represents a serious attempt to bridge the existing gap in the literature, which often only addresses aspects of fluency and accuracy, without delving into developing pragmatic competence in a systematic manner. The importance also lies in integrating a modern technology such as virtual reality into the context of language teaching, which provides an interactive environment full of similarities to life situations and increases students' motivation and engagement. He added that the results of the research can be used in developing curricula and teaching strategies in line with modern technological transformations, in addition to providing practical recommendations for teachers and listening to educational decisions on how to integrate virtual reality tools into language teaching programs to achieve tangible results. From a theoretical perspective, the research aims to combine studies related to language buds and educational technology with new experimental evidence. As for the applied aspect, it presents A framework that can be used to design realistic and implementable pragmatic activities in university classrooms.

This research aims to investigate the impact of employing virtual reality data in teaching English as a foreign language from a pragmatic competence perspective, by addressing the weaknesses that traditional methods suffer from in this regard. The research, based on the sublime title, aims to verify the extent to which virtual reality-supported classroom activities can develop learners' ability to use language socially appropriately in real-world situations, such as requesting, apologizing, refusing, or offering a compliment. It also seeks to compare the effectiveness of this immersive learning environment with its traditional counterparts, which rely on classroom role-playing, with the aim of identifying significant differences between the two approaches. Furthermore, the research seeks to explore the sustainability of the impact that virtual reality can have on learning pragmatics by conducting a delayed test that measures the persistence of learning effects over a period of time. Finally, The goal is not limited to the quantitative aspect, but rather extends to the qualitative dimension by clarifying the perceptions of both students and teachers regarding the experience, especially with regard to the degree of engagement, reducing anxiety, and classroom effectiveness.

Based on these objectives, the research examples focus on three main questions:

- How effective is virtual reality-supported instruction in developing English language learners' pragmatic competence compared to traditional teaching methods?



- Does this method lead to significant differences in students' performance in the post-test?
- Does the learning gained through virtual reality persist after the experiment ends?
- In other words, can learners maintain an advanced pragmatic level in the post-test?

The research aims to understand students' and teachers' perceptions of this experience, their sense of belonging, comfort, and engagement, and the impact of this on their motivation to participate in communicative situations.

Theoretical Background

Pragmatic Competence

One must develop pragmatic competence—the ability to communicate and comprehend meaning in a social setting—in order to become a skilled speaker in the global community. The importance of pragmatic competence has been stressed in both theory and practice. In the 1980s and 1990s, theoretical models of L2 communication competence emerged in the field, drawing from Hymes' (1972) notion of communicative competence. As an alternative concept to the theories of communicative competence, interactional competence and "symbolic competence," which emphasise the dialogic element of communication, have been put out more recently. By positioning pragmatic and sociolinguistic competence as a unique, essential element, these theoretical frameworks have improved the subject. The models have also functioned as a foundation for the empirical investigation competency. It was necessary to operationalise the capacity to use language and the understanding of socially acceptable language usage in some way as a measurable concept. To do so, particular activities, tools, and analytical techniques were investigated (Taguchi, 2009).

Pragmalinguistics and sociopragmatics are components of pragmatic competence (Leech, 1983; Thomas, 1983). Thomas (1983) distinguished between two categories of pragmatic failure: sociopragmatic failure and pragmatic failure. While sociopragmatic failure arises from "differing perceptions of what constitutes appropriate linguistic behaviour," pragmatic failure is really a linguistic issue, "caused by differences in the linguistic encoding of pragmatic force" (Thomas, 1983).

The differentiation between these two categories of failure is comparable to the division between pragmalinguistics (the functional component of pragmatic competence) and sociopragmatics (the social component of pragmatic competence), which is present in Bachman and Palmer's (2010) model of communicative competence's definition of pragmatic knowledge. Bachman and Palmer (2010) claim that sociolinguistic and functional information are included

in pragmatic knowledge. Sociolinguistic knowledge is the ability to use language forms appropriately based on various situational variables (e.g., social status, familiarity, power relationship, and degree of imposition), such as using polite forms when speaking to people of higher social status. Functional knowledge is the ability to use language forms to realise pragmatic functions, such as using would you to make a request (Xiao, 2015).

Task-Based Language Teaching – TBLT

The teaching methodology known as Task Based Language Teaching (TBLT) is predicated on the use of interactive and communicative tasks to organise and carry out instruction. The features of communicative language teaching are expanded upon by task-based language teaching, which aims to apply L2 principles to instruction. It has been considered a novel strategy. This method is "a development of CLT. This approach relies on three major notions in terms of tasks. Richards and Rogers (2002) introduce such criteria as:

- “1. Activities involve real language communication are essential for language learning.
2. Activities in which language is used for carrying out meaningful tasks promote learning.
3. Language that is meaningful to the learner supports the learning process.”

Many people are said to get the confidence and willingness to communicate effectively in a foreign language through TBLT, which is considered a vital basis. This is true even for people whose grammar and form skills fall short of what is expected of them. With TBLT, students are given many of chances to use the language they already know in the classroom without worrying about making mistakes. Stated differently, it encourages students' self-assurance and zeal. Both the task activity and the subsequent accomplishment are to blame for this. Contrary to popular belief, TBLT does not exclude form-focused activities. In fact, the goal of these exercises is to improve oral proficiency in the target language. To put it another way, TBLT emphasises meaningful interaction that empowers students while drawing their attention to language form when and when it is needed. SLA research has shown that exposure to "comprehensible input" is not the primary factor in second language acquisition; engaging learners in meaningful and naturalistic conversation is crucial. The main focusses of a TBLT classroom are teacher-tailored assignments, group projects, and pair work. Such a teacher is expected to be receptive; even a novice who can facilitate communication among students can manage such a class. However, for such a teacher, creativity can be a significant value (Motlagh et al., 2014).



Since the 1980s, when it motivated a generation of language teachers looking to effectively implement Communicative Language Teaching, task-based language teaching (TBLT) has had a significant impact. It has since evolved into a methodology, assessment, and syllabus design approach. As TBLT has gained traction, it has also expanded, embracing several theoretical perspectives on language acquisition (Ellis, 2017).

For the past 30 years, language instructors have been interested in task-based language teaching, or TBLT. This method of teaching languages is process-oriented and places communicative language education at the center of syllabus design and learning objectives. The core tenet of TBLT is that communicative tasks are the fundamental units of the curriculum and the only components of the pedagogical cycle where meaning is prioritized. It is anticipated that focusing language instruction on activities will provide students with an experiential learning process where they will use the target language to make sense of it. This process of negotiative language use will encourage and support the students' language learning (Lai & Li, 2011).

TBLT views language as a tool for communicating meaning, despite its greater focus on learning theories than language theories. To put it another way, meaning is crucial. Language display is not a concern of this method. The term "language focus" describes deliberate consideration of language within the framework of an activity that is meaning-focused. In other words, learners consider the language or collaborate to solve their language challenges as they prepare for a meaning-focused activity. Items are chosen for a more focused attention on form based on the task's nature and relevant texts. Here, the components that need to be addressed are picked and selected carefully. Because it is obviously unrealistic or impossible to cover every word in a book or assignment, this is done selectively. Language is referred to by TBLT proponents as having structure, function, and interactional value. This indicates that TBLT gains from each of the three models collectively rather than from each one separately. One of the fundamental ideas behind the benefits of ELT tasks is that they can connect all other instructional units, including syntactic, lexical, and functional ones. One of the underlying assumptions here is that language's lexical units are fundamental to language learning and usage. TBLT places more of an emphasis on language than conventional methods do (Motlagh et al., 2014).

Virtual Reality in Language Education

A cutting-edge technology called virtual reality (VR) has been used in language instruction to raise student motivation, engagement, and academic achievement. The unmatched speed of technological advancement in recent years has driven scholars and practitioners to better understand how technologies are used in education. Virtual reality (VR)-enhanced learning environments have been



recognised as beneficial learning spaces among new technologies that may further impact learner psychology and actual learning. VR-enhanced digital environments, which are primarily powered by computer-generated simulation technologies, mimic real or imagined worlds in terms of sight, sound, and touch. They use computer-mediated communication (CMC), displays, tracking, and other technology to create fictional, interactive, and immersive experiences for consumers. The affordances, opportunities, and challenges of using virtual reality (VR) in education have been covered in a number of review articles. It has been demonstrated that the new immersive experiences that VR tools offer increase participant interest, inspire students to try new things, and encourage active learning (Zheng, 2023).

Numerous academics have discussed the possible advantages of virtual reality in the context of language instruction. Scholars have also emphasised the importance of examining the process of "second language learning in the specific complexity of innovative computer-mediated contexts," as well as the "complex way language learning technologies and virtual environments mediate learners' acquisition of a second language" (Kramsch & Steffensen, 2008).

Previous Studies

Recent research has shown that virtual reality (VR) is an effective tool for enhancing English as a second language learning, particularly in terms of fluency, interaction, and learner motivation. For example, Akay & Kessler (2024) conducted a quasi-experimental study involving an experimental group using a VR-enriched environment and a control group taught in a traditional way. The researchers found that the experimental group demonstrated significant improvements in their communicative skills, along with a significant increase in self-confidence and student engagement within the virtual classroom. The study highlighted the importance of full immersion in the learning environment, which supports the hypothesis that VR enhances communicative competence more than traditional methods. In another study, G (2025) analyzed the effect of using semi-immersive VR environments on the learning of speech acts among university-level English learners. The results showed that students trained in VR environments were able to use speech acts (such as requests, apologies, courtesy, and refusals) more socially appropriately than students in traditional classrooms. They also found that responding to feedback was faster and more effective, enhancing students' ability to adapt to real-world situations.

Some studies have focused specifically on pragmatic competence and its association with virtual reality or other interactive learning methods. Taguchi (2021) found that students exposed to pragmatic situations in interactive learning environments demonstrated a greater ability to select appropriate social behaviors and behaviors than their peers taught using traditional methods. The study indicated that short-term experiences were sufficient to enhance students'

awareness of social appropriateness, but the continuity was limited, suggesting the need to examine the long-term impact of learning.

Vakhobova et al. (2005) conducted a comprehensive systematic review of the use of technology in English as a second language learning, including VR and CALL. The results showed that the use of these tools increases the effectiveness of pragmatic learning and enhances students' awareness of speech acts in various communication situations. However, the researchers noted that most studies focused on fluency and general discourse, without delving into specific actions such as apologies or refusals, leaving an important research gap.

In a study published on the MDPI platform (2024), the researchers demonstrated that integrating digital games with language learning provides practical opportunities for applying speech acts within classroom contexts, reduces the fear of making mistakes, and increases motivation to participate. However, the study noted that the assessments were short-term and did not address retention of pragmatic skills after a specific period of time.

Locally, we found that Arab studies on virtual reality and pragmatic competence are limited, but some studies focused on educational technology in general. For example, a master's thesis at the University of Baghdad (2023) showed that the use of electronic simulation in teaching English improves student interaction and reduces anxiety, but the pragmatic effect was not measured systematically. This finding confirms the need to conduct a field study based on VR to develop pragmatic competence in the Arab race.

Despite the progress of studies on virtual reality in English language teaching, there are several research gaps:

- The limited coverage of specific speech acts, such as requests, apologies, courtesy, and refusals, in VR environments.
- The lack of studies that used a quasi-controlled experimental design with a delayed test to measure the continuity of learning.
- The limited scope of studies in Arab or local university contexts limits the generalizability of the results to these settings.
- The need to integrate quantitative and qualitative analysis to understand the impact comprehensively, rather than just assessing learners' performance or perceptions separately.

Methodology

Research Methodology

The research relied on a quasi-experimental design to measure the impact of virtual reality (VR)-supported instruction on developing pragmatic competence among English language learners. The sample was divided into two groups:

- The experimental group: taught using virtual reality-based activities (simulating real communication situations).
- The control group: taught using traditional methods (role-playing within the classroom).

Research Population and Sample

- The research population consists of students from Al-Asbat Intermediate School for Boys in Karbala Governorate for the academic year (2024–2025).
- A purposive sample of (60) students from the second intermediate grade was selected and randomly distributed as follows:
 - ❖ (30) students in the experimental group.
 - ❖ (30) students in the control group.

Table (1): Distribution of sample members by group

Group	NO.	Percent%
Experimental (VR)	30	%50
Control	30	%50
Total	60	%100

Research Tool

- Pragmatic Competency Test: This test included (20) pragmatic situations to measure students' ability to select appropriate linguistic expressions (request, apology, refusal, compliment).
- Questionnaire: This test was designed to measure students' and teachers' attitudes toward virtual reality teaching using (15) items on a five-point Likert scale.

NO.	Items	Likert Scale
1	Virtual reality helped me reduce my anxiety when speaking English.	Strongly agree <input type="checkbox"/> agree <input type="checkbox"/> Neutral <input type="checkbox"/> disagree <input type="checkbox"/> strongly disagree <input type="checkbox"/>
2	It encouraged me to participate more in classroom situations.	Strongly agree <input type="checkbox"/> agree <input type="checkbox"/> Neutral <input type="checkbox"/> disagree <input type="checkbox"/> strongly disagree <input type="checkbox"/>
3	It made me more motivated to learn English.	Strongly agree <input type="checkbox"/> agree <input type="checkbox"/> Neutral <input type="checkbox"/> disagree <input type="checkbox"/> strongly disagree <input type="checkbox"/>
4	It provided me with opportunities to practice realistic, everyday situations.	Strongly agree <input type="checkbox"/> agree <input type="checkbox"/> Neutral <input type="checkbox"/> disagree <input type="checkbox"/> strongly disagree <input type="checkbox"/>
5	It helped me choose appropriate language expressions (such as requests, apologies, refusals, and	Strongly agree <input type="checkbox"/> agree <input type="checkbox"/> Neutral <input type="checkbox"/> disagree <input type="checkbox"/> strongly disagree <input type="checkbox"/>



	compliments.(
6	It enhanced my ability to interact with my classmates and teacher in English.	Strongly agree <input type="checkbox"/> agree <input type="checkbox"/> Neutral <input type="checkbox"/> disagree <input type="checkbox"/> strongly disagree <input type="checkbox"/>
7	It helped me remember information for a longer period of time compared to traditional methods.	Strongly agree <input type="checkbox"/> agree <input type="checkbox"/> Neutral <input type="checkbox"/> disagree <input type="checkbox"/> strongly disagree <input type="checkbox"/>
8	It reduced my fear of making mistakes during conversation.	Strongly agree <input type="checkbox"/> agree <input type="checkbox"/> Neutral <input type="checkbox"/> disagree <input type="checkbox"/> strongly disagree <input type="checkbox"/>
9	It made the class more fun and exciting than traditional methods.	Strongly agree <input type="checkbox"/> agree <input type="checkbox"/> Neutral <input type="checkbox"/> disagree <input type="checkbox"/> strongly disagree <input type="checkbox"/>
10	It helped me use language in a socially appropriate way in different situations	Strongly agree <input type="checkbox"/> agree <input type="checkbox"/> Neutral <input type="checkbox"/> disagree <input type="checkbox"/> strongly disagree <input type="checkbox"/>
11	It made me more confident when speaking English.	Strongly agree <input type="checkbox"/> agree <input type="checkbox"/> Neutral <input type="checkbox"/> disagree <input type="checkbox"/> strongly disagree <input type="checkbox"/>
12	I believe that virtual reality is an effective way to develop pragmatic competence.	Strongly agree <input type="checkbox"/> agree <input type="checkbox"/> Neutral <input type="checkbox"/> disagree <input type="checkbox"/> strongly disagree <input type="checkbox"/>
13	Using virtual reality makes the class more interactive and lively.	Strongly agree <input type="checkbox"/> agree <input type="checkbox"/> Neutral <input type="checkbox"/> disagree <input type="checkbox"/> strongly disagree <input type="checkbox"/>
14	I prefer using virtual reality in language learning more than traditional activities (role-playing.(Strongly agree <input type="checkbox"/> agree <input type="checkbox"/> Neutral <input type="checkbox"/> disagree <input type="checkbox"/> strongly disagree <input type="checkbox"/>
15	I recommend continuing to use virtual reality in English language lessons.	Strongly agree <input type="checkbox"/> agree <input type="checkbox"/> Neutral <input type="checkbox"/> disagree <input type="checkbox"/> strongly disagree <input type="checkbox"/>

Validity and Reliability

- The validity and content validity of the questionnaire were verified by presenting it to a group of judges specialized in language teaching methods.
- The reliability coefficient (Cronbach's alpha) for the questionnaire was (0.87), which is statistically acceptable.

Research Procedures

- A pre-test was conducted for both groups to measure the level of pragmatic proficiency before treatment.
- Implementation of the teaching program (8 weeks, at a rate of two sessions per week).
- A post-test was conducted for both groups.
- A delayed test was administered after 4 weeks to measure the continuity of the effect.

Pre-test Results

Table (2) shows no statistically significant differences between the two groups in the pre-test.

Table (2) Mean and Standard Deviation of the Pre-test

Group	Number	Mean	Standard Deviation	t-value	Significance
Experimental ((VR	30	12.4	2.1	0.41	Not significant
Control	30	12.1	2.3		

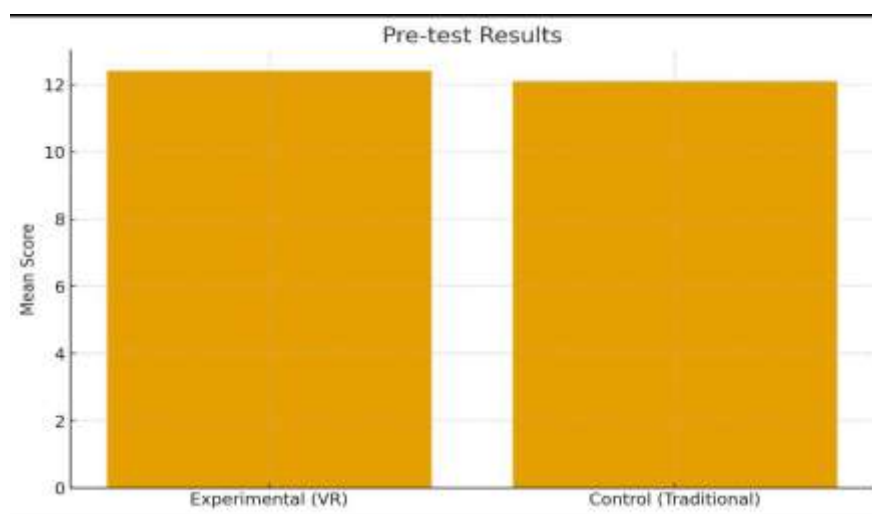


Figure (1) shows the similarity of the two groups' results in the pre-test:

Post-test results

Table (3) shows that the experimental group outperformed the control group to a statistically significant degree ($p < 0.05$).

Group	Number	Mean	Standard Deviation	t-value	Significance
Experimental	30	17.8	1.9	4.62	Significant

((VR					at 0.05
Control	30	14.2	2.2		

Table (3) The arithmetic mean of the post-test

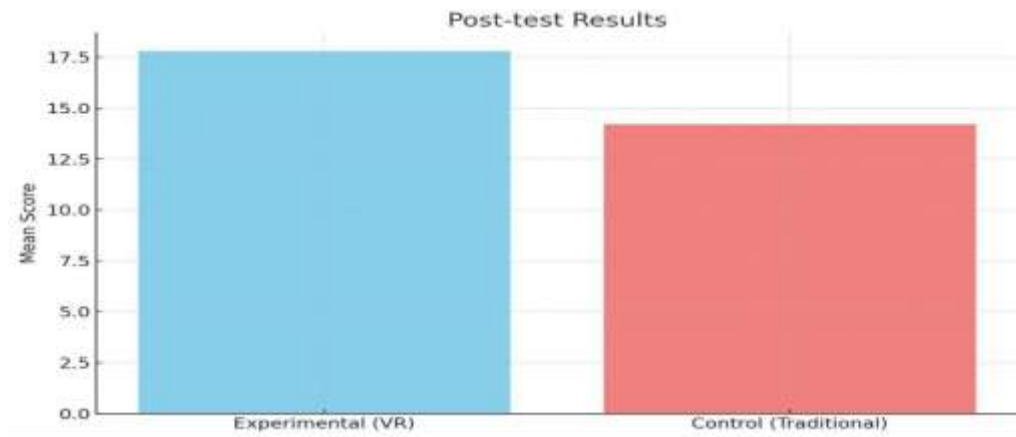


Figure (2) shows the significant difference in favor of the experimental group.

Delayed Test Results

The results of the delayed test after (4) weeks showed that the experimental group maintained a high level of deliberative efficiency, while the control group experienced a slight decline.

Table (4) Delayed Test Results

Group	Mean	Standard Deviation	difference from post
Experimental (VR)	17.2	1.8	0.6-
Control	13.5	2.4	0.7-



Figure (3) illustrates the continued impact of virtual reality training compared to traditional methods.

Survey Results (Student and Teacher Attitudes)

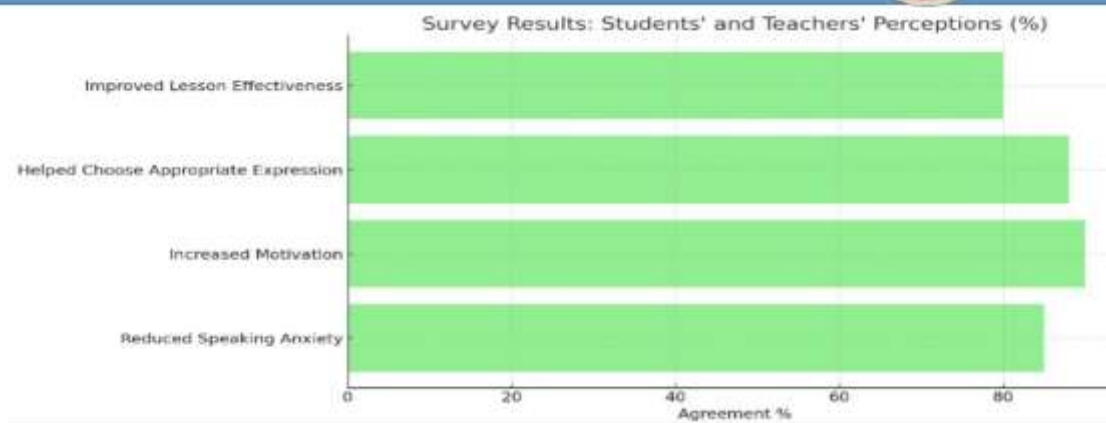
The results of the survey responses showed that:

- %85of students believed that virtual reality contributed to reducing speaking anxiety.
- %90confirmed that it enhanced their motivation to participate.
- %80of teachers believed that integrating VR increases the effectiveness of the classroom.

Table (5) Key Survey Results

Item	approval rate
Reduced speaking anxiety	85%
Increased motivation to participate	90%
Help in choosing appropriate expression	88%
Effectiveness of the class	80%

Figure (4) illustrates students' and teachers' attitudes toward virtual reality-based teaching.



The results showed that virtual reality-supported teaching was more effective than traditional methods in developing pragmatic competence among English language learners at Al-Asbat Intermediate School for Boys. The results also demonstrated the persistence of the effect after the experiment ended, demonstrating virtual reality's ability to consolidate pragmatic knowledge. Furthermore, the results revealed highly positive attitudes among both students and teachers toward this technology, considering it a stimulating tool that reduces anxiety and increases engagement.

Conclusions

The study's findings demonstrated that virtual reality-supported instruction was superior to conventional approaches in fostering pragmatic competence in English language learners, as evidenced by the outcomes of the pre-, post-, and delayed examinations as well as the examination of questionnaire responses. Compared to students in the control group, students in the experimental group shown a greater ability to utilise language in acceptable social settings, such as when apologising, making requests, refusing requests, or receiving compliments. The post-test results validated the ongoing impact of virtual reality training, indicating that this technology not only fosters pragmatic competence but also aids in the longer-term consolidation of pragmatic knowledge.

Responses from both students and teachers indicated that virtual reality helps to improve motivation and engagement in classroom settings and lessen speaking anxiety, which is a behavioural and psychological aspect that aids in the learning process. This study adds to the body of knowledge in the field of foreign language instruction by showing how virtual reality technologies can be included into the curriculum to make up for the current deficiency of realistic, practical instruction in traditional classroom settings.

Recommendations

Based on the findings of the research, the following recommendations can be made:

- Systematically integrate virtual reality into English language curricula at various educational levels, especially when training students in pragmatic situations.
- Provide teachers with specialized training courses on how to employ virtual reality applications in the classroom in a manner consistent with educational objectives.
- Encourage educational authorities (Ministries of Education and Higher Education) to adopt virtual reality technologies within strategic plans for developing education to keep pace with global technological transformations. Develop classroom programs and activities based on simulating real-life situations (such as interviews, service situations, and social situations) using virtual reality to enhance students' ability to communicate effectively.
- Conduct further applied studies examining the impact of virtual reality on other aspects of language learning (such as fluency, pronunciation, and vocabulary development), focusing on Arab and local contexts to enhance the generalizability of the findings.
- Encourage future research to study the long-term effects of virtual reality on learners, as well as its integration with other methods such as task-based learning (TBLT) or collaborative learning.
- Provide technical infrastructure in schools and universities (VR devices, advanced language labs) to enable the sustainable use of these educational tools.

References

- Akay, H., & Kessler, G. (2024). *The impact of virtual reality pedagogy on L2 English learners' oral communication and pragmatic competence*. ResearchGate.
https://www.researchgate.net/publication/380971471_The_impact_of_virtual_reality_VR_pedagogy_on_L2_English_learners%27_oral_communication_and_pragmatic_competence
- Bachman, L. F. (1990). *Fundamental considerations in language testing*. Oxford University Press.
- Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics*, 1(1), 1–47. <https://doi.org/10.1093/applin/I.1.1>
- Ellis, R. (2003). *Task-based language learning and teaching*. Oxford University Press.
- Ellis, R. (2017). *Task-based language teaching*. In *The Routledge handbook of instructed second language acquisition* (pp. 108-125). Routledge.

- Gu, X. (2025). Effects of semi-immersive virtual reality on L2 pragmatic competence: A quasi-experimental study. *Education and Information Technologies*. <https://link.springer.com/article/10.1007/s10055-024-01061-5>
- Kramsch, C., & Steffensen, S. V. (2008). Ecological perspectives on second language acquisition and socialization. *Encyclopaedia of language and education* (pp. 17–28). Springer.
- Lai, C., & Li, G. (2011). Technology and Task-Based Language Teaching. *CALICO journal*, 28(2), 498-521.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.
- MDPI. (2024). Using digital games to develop L2 pragmatic skills: Opportunities and challenges. *Education Sciences*, 15(2), 172. <https://www.mdpi.com/2227-7102/15/2/172>
- Motlagh, F. A., Jafari, A. S., & Yazdani, Z. (2014). A general overview of task-based language teaching (TBLT), from theory to practice. *International Journal of Language and Linguistics*, 2(5-1), 1-11.
- Taguchi, N. (2021). Developing pragmatic competence in a virtual environment: The role of immersion. *Language Learning & Technology*, 25(3), 45–67. <https://www.lltjournal.org/item/1123/>
- Taguchi, N. (2022). Virtual reality and pragmatic development in L2 English learners. *Language Learning & Technology*, 26(1), 1–20. <https://www.lltjournal.org/item/1137/>
- Taguchi, N. (Ed.). (2009). *Pragmatic competence* (Vol. 5). Walter de Gruyter.
- Thomas, J. (1983). Cross-cultural pragmatic failure. *Applied Linguistics*, 4, 91-112.
- Vakhobova, L., Karimova, S., & Akbarov, R. (2025). Integrating technology in L2 pragmatic instruction: A systematic review. *International Review of Education and Language Teaching*, 10(1), 55–78. <https://journals.bilpubgroup.com/view.php?id=4256>
- Xiao, F. (2015). Proficiency effect on L2 pragmatic competence. *Studies in Second Language Learning and Teaching*, (4), 557-581.
- Yan, J. (2024). Immersive virtual reality for developing L2 pragmatic skills: Evidence from higher education. *Educational Research International*, 2024, Article ID 103547. <https://www.researchsquare.com/article/rs-3711927/v1>



Zheng, C., Yu, M., Guo, Z., Liu, H., Gao, M., & Chai, C. S. (2023). Review of the application of virtual reality in language education from 2010 to 2020. *Journal of China Computer-Assisted Language Learning*, 2(2), 299-335.

جامعة بغداد. (2023). استخدام المحاكاة الإلكترونية في تدريس اللغة الإنجليزية: أثرها على تفاعل الطلاب وخفض القلق [رسالة ماجستير غير منشورة]. كلية التربية، جامعة بغداد.