

# THE ROLE OF VIRTUAL REALITY (VR) IN IMPROVING SPEAKING SKILLS OF SECONDARY SCHOOL STUDENTS

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## Abstract

Recent advancements in technology, particularly Virtual Reality (VR), are revolutionizing the way we learn languages by providing immersive and interactive experiences that engage students in ways that traditional methods cannot. Speaking is a primary language skill, which needs to be developed before the other language skills. Virtual reality technology has shown promise in improving high school students' speaking skills by creating immersive language practice environments. By using VR headsets and interactive tools, students can engage in realistic conversations, presentations, and scenarios to enhance their fluency, pronunciation, and confidence in speaking a foreign language. This innovative approach to language learning can be both effective and enjoyable for students, offering a fun and engaging way to improve their speaking abilities. A sample group of Grade 7 classes in a research project included 30 English additional language learners. One grade 7 classes were selected, 15 pupils were being the experimental and the other 15 were being the control group. Over a six-week period, the experimental group was exposed to and received planned activities through VR technology tools daily. A significant difference in the means between the control and the experimental groups was recorded during a re-test done on all learners of the two classes. The experimental group performed well in their speaking abilities in English as a second language. This finding has important teaching implications for ESL.

**Key words:** virtual reality, realistic conversations, fluency, pronunciation, speaking ability, primary language skill, experimental group, control group, ESL.

**INTRODUCTION.** The article aims to show that students in secondary education may benefit from virtual reality programs if teachers recognized their worth and implemented activities for their pupils. With its ability to offer immersive and interactive experiences that engage students in ways that traditional approaches cannot, virtual reality (VR) technology has the potential to completely transform language instruction. Through simulated real-life language encounters, virtual reality (VR) presents a unique chance to improve speaking abilities in the context of secondary school language instruction. For instance, Owens and Beidel[1] found that giving a speech in front of a virtual compared to a real audience elicited less physiological arousal, while another study found similar physiological reactions between real and virtual public speaking scenarios.[2]

This article examines how virtual reality (VR) can help secondary school students become more proficient speakers. It does this by highlighting the techniques employed, a sample research study that was done with students in the seventh grade, and the implications of the findings for language instruction. This article investigates the function of virtual reality

in developing speaking skills, emphasizing its potential for language acquisition, cultural immersion, customized learning, real-world application, motivation, and engagement. Using VR technology in language teaching allows instructors to offer unique and effective learning possibilities that prepare students for successful communication in a globalized environment.

**METHODS.** Virtual reality (VR) technology provides a variety of novel approaches to improving speaking skills in a dynamic and immersive learning environment. First, VR platforms may generate realistic discussion settings in which students interact with virtual individuals. This allows students to practice speaking in a variety of settings, including social encounters, job interviews, and customer service scenarios. By participating in these simulated discussions, students can improve their fluency, vocabulary, and conversational abilities. Second, Pronunciation Feedback: VR systems with speech recognition technology can provide real-time feedback to pupils on their pronunciation correctness. By assessing students' speech patterns and accents, VR applications can provide tailored feedback to help them improve their pronunciation, intonation, and articulation. This rapid feedback technique can be helpful in improving pupils' speech. Third, Public Speaking Simulations: VR simulations can simulate public speaking scenarios such as delivering presentations to a virtual audience or taking part in debates. These simulations assist students to hone their speaking skills, organize their thoughts effectively, and engage an audience. Students can boost their public speaking confidence by constantly rehearsing in a virtual situation. Finally, Language Immersion: VR may bring students to virtual situations where they are immersed in the target language. Students can practice speaking naturally and authentically by interacting with virtual people and negotiating ordinary situations such as ordering lunch or asking for directions. This intensive language program enhances students' speaking fluency, vocabulary, and cultural knowledge.

**RESULTS AND DISCUSSION.** The study was carried out using tests to determine the effect of a particular stimulus, yet keeping the same conditions in both the experimental and control groups. [3] Both experimental and control groups trained speaking activities, like role-plays and group discussions and public speaking activities. However, experimental group students were participated virtual discussions and public speaking activities with virtual audiences that is very relevant to those who have Social anxiety disorder (SAD).[4]Our goal as researchers was to apply results and logically interpret findings to help young learners acquire the language of instruction and learning.

Initially, a class was chosen and split into experimental and control groups. Appropriate visual and auditory tools were then selected in accordance with students' developmental stage. Incorporating virtual reality based activities can boost speaking acuity while providing an entertaining approach to language acquisition beyond traditional methods. The following experimental procedure outlines an effective process for utilizing Virtual Reality tools to boost secondary school pupils' speaking skills:

**1.Preparation Phase.** The experimental group participated in traditional classroom speaking activities for two weeks to establish a baseline for comparison. The control group continued with regular classroom activities during this period.

**Active VR Class Activities: Introduction to VR:** Following the preparation phase, the experimental group was introduced to the VR technology and its application in improving speaking skills.

**2.VR Speaking Sessions.** Over the next four weeks, the experimental group engaged in VR-based speaking exercises and simulations designed to enhance their communication

skills. Activities included virtual presentations, role-playing scenarios, and interactive dialogues.

**3. Post-VR Activities.** Post-Intervention Assessment: At the end of the six-week period, all students underwent a post-intervention assessment to measure improvements in their speaking abilities.

**4. Comparison with Control Group.** The control group also participated in post-intervention assessments to compare the effectiveness of VR-based activities against traditional classroom methods.

### *Benefits and Outcomes*

The active engagement with VR technology provided students with a realistic and immersive environment to practice speaking skills. VR simulations allowed students to overcome stage fright, improve articulation, body language, and overall confidence in public speaking.

### *Outcomes and Findings:*

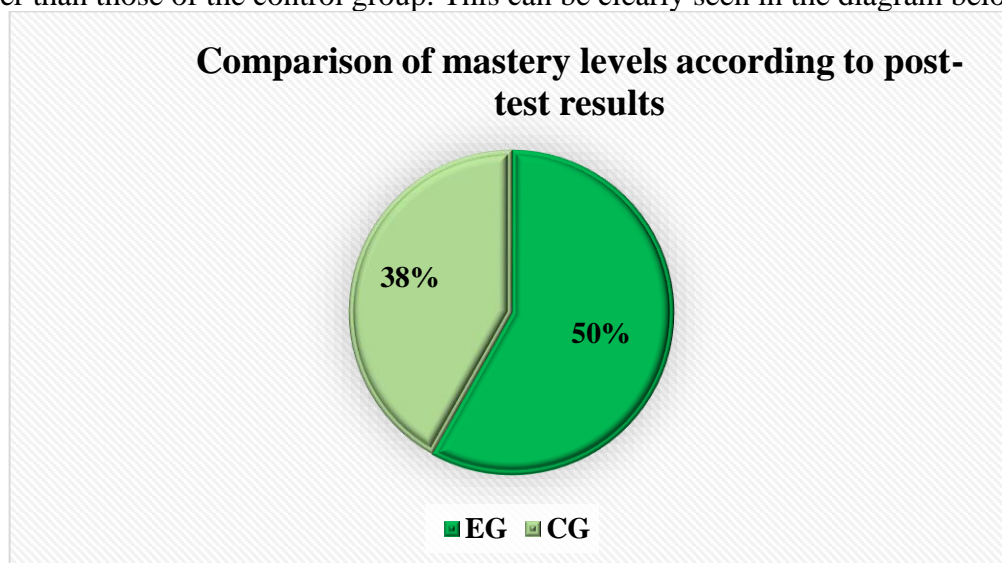
Data analysis revealed significant improvements in speaking skills among students in the experimental group compared to the control group. The results of the research study revealed a significant improvement in the speaking skills of students who participated in the VR-based speaking practice compared to those in the control group. The experimental group demonstrated greater fluency, accuracy, and confidence in their spoken language production, as evidenced by their performance in the post-assessment tasks. Students who engaged with VR technology reported feeling more motivated and engaged in their language learning, attributing their progress to the immersive and interactive nature of the virtual environment. One notable finding from the study was the increased willingness of students in the experimental group to take risks and experiment with new language structures and expressions. The virtual conversations with native speakers provided a safe and supportive space for students to practice speaking without fear of judgment or embarrassment. This freedom to make mistakes and receive immediate feedback from the virtual environment helped students overcome their speaking anxiety and develop a more natural and spontaneous speaking style. An overall mean for the entire sample was calculated and yielded significant results. Students began to comprehend spoken English and showed remarkable progress in their pronunciation. The overall means for the experimental and control groups produced the following results.

**Table 1: Speaking skills: Means for experimental and control group**

Experimental & Control groups	Pre-test speaking skills				Post-test speaking skills			
	EG		CG		EG		CG	
Points	15		15		15		15	
	Students				Students			
5	2	13%	2	13%	5	34%	3	20%
4	4	27%	6	40%	8	53%	5	34%
3	7	47%	4	27%	2	13%	6	47%
2	2	13%	3	20%	0	0	1	6%
Average level of mastery	32%		34%		50%		38%	

in (%)				
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Multiple comparisons of means were conducted on the difference-means of the various levels of the identified significant variables. Comparison of mastery levels according to post-test results – shows the level of growth (EG–CG; EG/CG),  $50\% - 38\% = 12\%$ ;  $50/38 = 1.2$ ), where it can be seen that the children of the experimental group grew by 12 percent (1.2 times) higher than those of the control group. This can be clearly seen in the diagram below:



Overall, using music and songs could have a favorable impact on the acquisition of English as a second language, particularly on listening skills for ESL learners. Enhancing the English language skills of young non-English speaking learners could improve their overall academic performance, contributing to their success in school.

## CONCLUSION

In conclusion, research study highlights the potential of Virtual Reality (VR) technology to improve speaking skills in secondary school students. By providing immersive and interactive language practice opportunities, VR can enhance students' fluency, accuracy, confidence, motivation, and cultural awareness in speaking the target language. The findings suggest that incorporating VR-based speaking practice into language education can lead to significant improvements in students' speaking proficiency and overall language learning experience. Virtual Reality (VR) technology holds great promise for improving speaking skills in secondary school students by providing engaging and effective language practice opportunities. By embracing VR technology as a tool for enhancing language education, educators can empower students to develop the linguistic skills and cultural competencies they need to thrive in an interconnected world. As VR continues to evolve and become more accessible in educational settings, its role in improving speaking skills at the secondary school level is likely to expand, offering new possibilities for engaging students in meaningful language experiences that prepare them for successful communication across linguistic and cultural boundaries.



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