

# THE INTEGRATION OF VIRTUAL REALITY (VIRTUAL SCENARIO) AND ARTIFICIAL INTELLIGENCE (CHARACTERS) WITH A SITUATIONAL TEACHING METHOD TO IMPROVE ENGLISH SPEAKING SKILLS OF GRADE 9 CHINESE STUDENTS

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## ABSTRACT

This study examined the impact of integrating VR and AI with situational teaching on the English-speaking skills of thirty Chinese ninth-grade students over four weeks. Results showed significant improvement in speaking scores, with the mean increasing from 7.27 (pretest) to 12.50 (posttest). Semi-structured interviews further revealed high student satisfaction with this approach. These findings suggest that VR and AI integration can serve as an effective alternative method for enhancing English speaking instruction in China and other non-English speaking contexts.

**Keywords:** Virtual Reality, Artificial Intelligence, Situational Teaching Method, English Speaking Skills, Learning Satisfaction.

## INTRODUCTION

English may not be the most spoken language in the world, but it is the official language of 53 countries and spoken by around 400 million people globally, which is why its importance lies not just in communicating with native speakers but in being the world's most common second language (Ilyosovna, 2020).

This study enhances traditional situational English teaching in China by integrating VR and AI. These technologies create dynamic, personalized practice environments with real-time feedback, ultimately improving secondary students' oral fluency and modernizing language education.

## EXPECTED BENEFITS

1. Through the use of the integration of VR and AI with a situational teaching method, the grade 9 Chinese students' English-speaking skill would be improved significantly.

2. Using the integration of VR and AI with a situational teaching method would remarkably enhance students' learning satisfaction.

## RESEARCH SCOPE

### Location of the Study

The research base for this study was a public junior high school located in Wengdu Town, Changning County, Baoshan City, Yunnan Province. The school consisted of more than 1,000 students and 50 faculty members.

### Population and Sample

Population: This population consisted of five classes of grade 9 with a total of 246 students with mixed genders as well as English language abilities.

Sample: The study sampled 30 Grade 9 students (16 boys, 53.33%; 14 girls, 46.66%) aged 14–16 from a public junior high school in Wengdu Town, Changning County, Baoshan City, Yunnan Province, China. Participants were selected via clustered random sampling from one class, employing a single-class case study design to facilitate in-depth analysis of classroom dynamics. All participants contributed to both qualitative and quantitative data collection.

### Time Frame

This research was conducted in the spring term of 2025. The instructional experiment, supported by researchers and delivered through four meticulously designed lesson plans (totaling 360 minutes), was implemented over four weeks. Data on the intervention's immediate effects were subsequently collected over another four-week period through surveys and in-depth interviews in a natural classroom setting.

## LITERATURE REVIEW

English holds critical importance in China as a core academic subject and a key determinant in university admissions and career advancement. Given that speaking serves as the cornerstone of human interaction—essential for conveying information, building relationships, and expressing emotions—developing spoken English proficiency represents a paramount educational objective. Speaking becomes an important skill to learn when we consider the output that students can communicate well using English (Mandasari & Aminatun, 2019).

### Challenges in English Speaking Among Chinese Students

This synthesis analyzes English speaking challenges among Chinese EFL learners. Despite growing emphasis on English, the exam-oriented education system prioritizes written exams such as the Gaokao over oral proficiency (Ministry of Education, 2022). Learners struggle with limited practice opportunities due to linguistic barriers (e.g., vocabulary, pronunciation) and psychological factors (e.g., anxiety). Additional

constraints include lack of immersion, cultural barriers, and insufficient qualified oral English teachers. These factors highlight an urgent need to expand speaking practice opportunities to align curriculum objectives with actual learning outcomes.

### **Situational Teaching Method**

Technological advancements are propelling education into immersive and interactive experiences (Almufarreh & Arshad, 2023). Innovative technologies like Augmented Reality (AR) and Virtual Reality (VR) are spearheading this paradigm shift. The development of these technologies fosters the reform of teaching environments, using ubiquitous computing to integrate physical and virtual spaces for creating virtual classrooms and laboratories (Rane, Choudhary, & Rane, 2023; Singh, 2023). The integration of VR possesses transformative potential, offering immersive interactions that enrich students' understanding. Providing interactive VR experiences can connect theory with practice, equipping students with confidence for future challenges (Maroungkas et al., 2023).

### **VR**

VR technology, with its immersive environments and interactive elements, can provide the necessary conditions for the flow state to occur (Andreas Maroungkas, 2023). Based on textbook objectives, teachers create realistic virtual scenarios (e.g., supermarkets, zoos) using tools like Mana and VR News. These immersive environments boost engagement, enhance retention of vocabulary and grammar, and promote active participation.

Virtual reality (VR) immerses learners in real-world scenarios (e.g., ordering food, professional conversations) to practice spoken English.

### **AI**

AI applications demonstrate significant potential in supporting both teaching and learning processes. They facilitate instruction in mixed-ability classrooms, offer detailed and timely feedback on student writing, and reduce the pedagogical burden on teachers. This allows educators to focus more on observing, guiding, and supporting students during collaborative knowledge-building activities (Akgun & Greenhow, 2021; Miao et al., 2021).

Furthermore, AI alleviates teachers' administrative workloads by automating repetitive tasks such as lesson planning, exam grading, and homework assessment. This automation provides educators with more time to monitor student progress and refine instructional methods (Fitria, 2021).

As highlighted by Yang (2022), a key advantage of AI in education is the development of comprehensive teaching platforms that supplement face-to-face instruction. By incorporating image, handwriting, and speech recognition technologies, these systems effectively reshape traditional educational models and learning mechanisms.

## **Integration of Virtual Reality (VR) and Artificial Intelligence (AI) with a situational teaching method**

The integration of Virtual Reality (VR) and Artificial Intelligence (AI) with a situational teaching method creates immersive and personalized learning experiences. VR builds dynamic 3D scenarios (e.g., historical recreations, role-playing) to enhance engagement and memory, while AI provides real-time adaptation and feedback tailored to individual learner needs. This synergy not only transcends physical classroom limits but also actively motivates students, fostering deeper knowledge application. Particularly for oral English learning, it simulates authentic environments and offers personalized coaching, representing a significant future trend in language education.

### **Stages of Integration of VR and AI with a Situational Teaching Method**

Based on the content you provided, here is a condensed version that preserves the original meaning and logical structure: The integration of VR and AI with a situational teaching method consists of five key steps. First, the teacher defines clear learning objectives and embeds them into immersive scenarios. Students then use VR devices to enter interactive virtual environments, such as a simulated job interview. Within this scenario, they engage in real-time conversation with an AI-driven character, receiving immediate feedback on their language use and cultural appropriateness. Finally, students participate in a reflective group discussion to evaluate their performance and identify areas for improvement.

This integrated approach creates personalized, immersive learning experiences. By combining VR's dynamic 3D scenarios for contextual understanding with AI's adaptive feedback, it breaks physical classroom limits, promotes active participation, and effectively develops students' practical communication skills.

### **Hypothesis**

1. Grade 9 Chinese students' English speaking skill was improved by the integration of VR and AI with situational teaching method.
2. Grade 9 Chinese students were satisfied with the integration of VR and AI with the situational teaching method to improve their English speaking skill.

### **Conceptual Framework**

The independent variable was the VR- and AI-integrated situational teaching method. The dependent variables were students' English-speaking skills and their learning satisfaction.

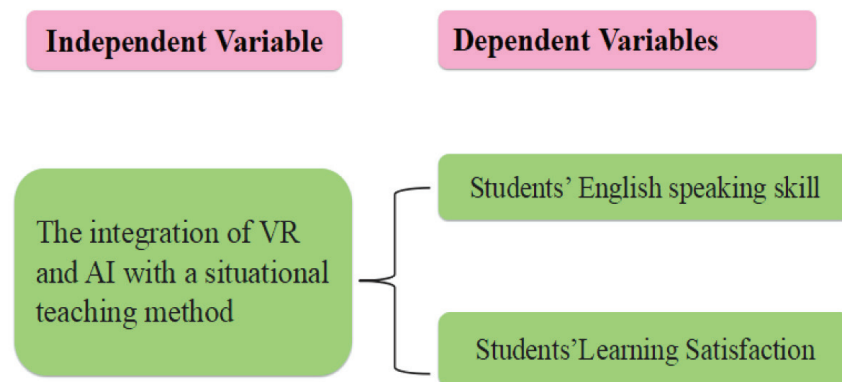


**Figure 1** Conceptual Framework

## Research Methodology

Using a quasi-experimental design, this study evaluated the VR- and AI-enhanced teaching method through pre-/post-tests and semi-structured interviews on student satisfaction, as outlined in the figure below.

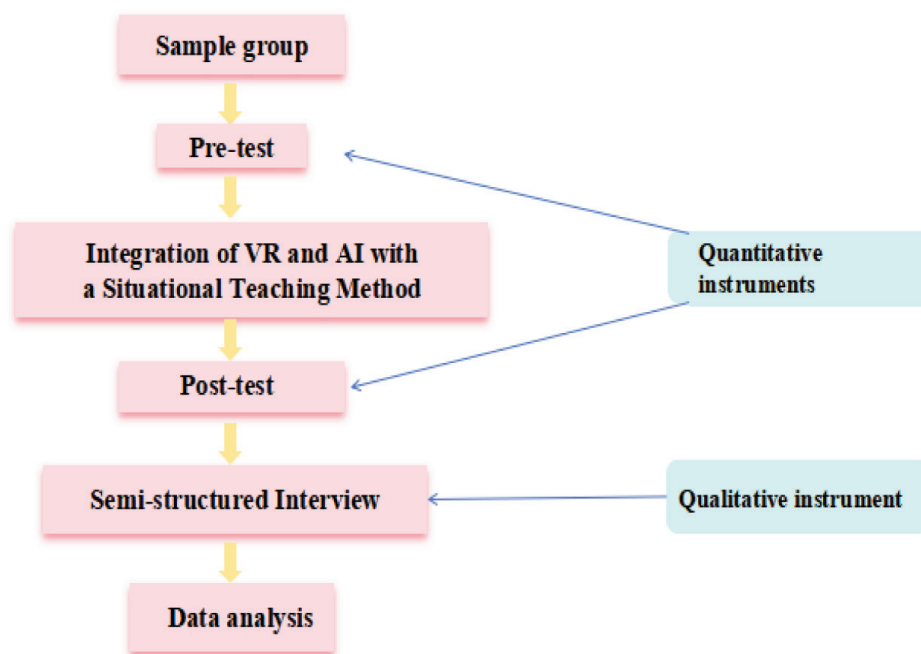


Figure 2 Illustration of Research Design

### Instruments

This study employed speaking tests (assessed via an analytical rubric), lesson plans, and semi-structured interviews with all 30 participants as the primary research instruments to address its objectives.

### Quantitative Data Collection Instruments Speaking skill tests (Pretest and Post test)

This study assessed the English-speaking skills of Grade 9 Chinese students before and after a VR and AI-integrated teaching intervention. Using pre- and post-tests on the same topic, performances were rated independently by a peer teacher and the teacher-researcher across five dimensions: Pronunciation Fluency, Grammar and Accuracy, Vocabulary Expression, Content and Coherence, and Confidence /Engagement.

| Criteria                | 4<br>(Excellent)                                              | 3<br>(Good)                                                | 2<br>(Satisfactory)                                  | 1<br>(Needs Improvement)                                      |
|-------------------------|---------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------|
| Pronunciation           | Clear, accurate pronunciation with natural intonation.        | Mostly clear with minor pronunciation errors.              | Some errors that slightly affect understanding.      | Frequent errors make speech hard to understand.               |
| Fluency                 | Speak smoothly with minimal hesitation.                       | Mostly fluent with occasional pauses.                      | Hesitations and pauses affect communication.         | Many pauses, making speech difficult to follow.               |
| Grammar/ Accuracy       | Uses a variety of sentence structures with minimal errors.    | Some grammar mistakes, but communication is clear.         | Several errors that sometimes cause confusion.       | Frequent grammar errors that hinder understanding.            |
| Vocabulary/ Expression  | Uses a wide range of vocabulary naturally and appropriately.  | Uses appropriate vocabulary with some variety.             | Limited vocabulary, with some repetition.            | Uses very simple or incorrect words, affecting communication. |
| Content & Coherence     | Ideas are well-organized and relevant, and clearly expressed. | Ideas are mostly organized and relevant with minor lapses. | Some ideas lack clarity or logical connection.       | Ideas are poorly structured and difficult to follow.          |
| Confidence & Engagement | Speaks confidently with good eye contact and expression.      | Shows confidence but sometimes lacks expression.           | Occasionally lacks confidence or avoids eye contact. | Very hesitant, lacks confidence, and avoids engagement.       |

(Adapted from international English language proficiency frameworks)

Figure 5 Rubric for Speaking Skill Test

They will be required to discuss the same topic in both the pre-test and post-test assessments.

#### **Qualitative Data Collection Instrument (Semi-Structured Interview)**

Here are some semi-structured interview questions would be used to find out the students' learning satisfaction with the use of integration of VR and AI with a situational teaching method to improve the speaking skills of 30 grade 9 Chinese students.

#### **Validity and Reliability of the Instruments**

##### **Validity**

For this study, the validity of the research instruments — including lesson plans, test items and semi-structured interview questions was assessed by 3 experts in English language teaching and education. The Item-Objective Congruence (IOC) indices of the instruments were calculated to ensure alignment with the study's objectives. As a result, all instruments were validated with the scores of 0.67-1.00. showing that they were valid for further use.

| S1.No           | Items         | Expert 1 | Expert 2 | Expert 3 | Average | Congruence |
|-----------------|---------------|----------|----------|----------|---------|------------|
| 1.              | Lesson plan 1 | +1       | +1       | +1       | +1      | Congruent  |
| 2.              | Lesson plan 2 | +1       | +1       | +1       | +1      | Congruent  |
| 3.              | Lesson plan 3 | +1       | +1       | +1       | +1      | Congruent  |
| 4.              | Lesson plan 4 | +1       | +1       | +1       | +1      | Congruent  |
| Overall Average |               | +1       | +1       | +1       | +1      | Congruent  |

**Figure 6** IOC for Lesson Plans

| S1.<br>No.                                                                                                   | Items                                                                                                                             | Expert<br>1 | Expert<br>2 | Expert<br>3 | Average | Congruence |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|---------|------------|
| <b>Part A: Interest and Motivation</b>                                                                       |                                                                                                                                   |             |             |             |         |            |
| 1.                                                                                                           | How did you feel about the use of integration of VR and AI with a situational teaching method in the classroom?                   | +1          | +1          | +1          | +1      | Congruent  |
| 2.                                                                                                           | Did any of the tasks you carried out motivate you to speak? How?                                                                  | +1          | +1          | +1          | +1      | Congruent  |
| <b>Part B: Engagement</b>                                                                                    |                                                                                                                                   |             |             |             |         |            |
| 3.                                                                                                           | Which stage of integration of VR and AI with a situational teaching method did you find most interesting and meaningful?          | +1          | +1          | +1          | +1      | Congruent  |
| 4.                                                                                                           | Why did you find this stage (mentioned in question 3) the most interesting and meaningful?                                        | +1          | +1          | +1          | +1      | Congruent  |
| <b>Part C: Efficacy of integration of VR and AI with a situational teaching method on students' learning</b> |                                                                                                                                   |             |             |             |         |            |
| 5.                                                                                                           | What did you think about using integration of VR and AI with a situational teaching method regularly in English-speaking classes? | +1          | +1          | +1          | +1      | Congruent  |

Figure 7 IOC for Semi-structured Interview

### Reliability

To assess the reliability of the speaking test questions, a reliability test was administered to 30 grade 9 students from a neighboring school where the researcher conducted the study. The test comprised 3 short-answer questions. The researcher employ the Kuder-Richardson Formula (KR-20) to determine the reliability coefficient of the test items. For the instruments to be considered reliable, the KR-20 coefficient is 0.70 or higher. The KR-20coefficient was found to be 0.75, which exceeded the threshold of 0.70, thus confirming the reliability of the test items.

| Student ID | Item 1 | Item 2 | Item 3 | Total |
|------------|--------|--------|--------|-------|
| 1          | 7      | 6      | 7      | 20    |
| 2          | 5      | 5      | 6      | 16    |
| 3          | 8      | 7      | 8      | 23    |
| 4          | 4      | 5      | 3      | 12    |
| 5          | 6      | 4      | 5      | 15    |
| 6          | 7      | 7      | 6      | 20    |
| 7          | 2      | 4      | 3      | 9     |
| 8          | 5      | 5      | 5      | 15    |
| 9          | 8      | 6      | 7      | 21    |
| 10         | 6      | 5      | 6      | 17    |
| 11         | 7      | 8      | 7      | 22    |
| 12         | 5      | 4      | 4      | 13    |
| 13         | 4      | 3      | 3      | 10    |
| 14         | 6      | 5      | 5      | 16    |
| 15         | 7      | 6      | 6      | 19    |
| 16         | 3      | 2      | 2      | 7     |
| 17         | 8      | 7      | 8      | 23    |
| 18         | 5      | 4      | 5      | 14    |
| 19         | 6      | 5      | 6      | 17    |
| 20         | 7      | 6      | 7      | 20    |
| 21         | 5      | 3      | 4      | 12    |
| 22         | 4      | 4      | 3      | 11    |
| 23         | 6      | 5      | 5      | 16    |
| 24         | 7      | 6      | 7      | 20    |
| 25         | 8      | 7      | 8      | 23    |
| 26         | 5      | 4      | 4      | 13    |
| 27         | 6      | 5      | 5      | 16    |
| 28         | 4      | 3      | 4      | 11    |
| 29         | 7      | 6      | 6      | 19    |
| 30         | 5      | 4      | 5      | 14    |
| Mean       | 5.87   | 5.07   | 5.27   | 16.2  |
| SD         | 1.817  | 2.097  | 1.949  | 4.497 |
| KP-20      | 0.75   |        |        |       |

Figure 8 Report Reliability

## DATA COLLECTION PROCEDURES

### Approval and Ethical Consideration

Adhering to ethical principles was essential for ensuring research quality and integrity (Hasan et al., 2021). This study obtained official approval from China's Ministry of Education and Skills Development, alongside securing informed consent from school administrators and participating teachers. As the participants were minors, parental consent was obtained by having guardians read, understand, and sign consent forms to safeguard the students' rights throughout the research process.

### Anonymity and Confidentiality of Participants

The details, views, and opinions of the research participants were kept confidential and anonymous throughout the study by using numerical identifiers. To preserve anonymity, participants were referred to as Student 1 (Std 1), Student 2 (Std 2), and so forth.

## DATA ANALYSIS

### Speaking Skill Test (Quantitative Data Analysis)

A descriptive analytic approach was employed to analyze the data from the English-speaking skill tests (pretest and posttest). The mean, standard deviation, and significance value (p) calculated to perform a comparative statistical analysis using the paired sample t-Test.

### Semi-Structured Interview (Qualitative Data Analysis)

Semi-structured interviews were conducted with all 30 participants, addressing six specific questions. Responses were audio-recorded and transcribed to ensure data reliability. Through thematic analysis, the data were coded and categorized into five key themes: Shift in Learning, Learning Enjoyment, Improved Comprehension, Motivation, and Learning Satisfaction.

**Table 1** Pre and Posttest scores of the participants

| Student ID | Pretest Scores<br>(Full Score=24) | Posttest Scores<br>(Full Score=24) | Score<br>Difference | %Score<br>Difference |
|------------|-----------------------------------|------------------------------------|---------------------|----------------------|
| 1          | 7                                 | 13                                 | 6                   | 20.00%               |
| 2          | 5                                 | 11                                 | 6                   | 20.00%               |
| 3          | 7                                 | 13                                 | 6                   | 20.00%               |
| 4          | 10                                | 15                                 | 5                   | 20.83%               |
| 5          | 6                                 | 12                                 | 6                   | 20.00%               |
| 6          | 5                                 | 10                                 | 5                   | 20.00%               |
| 7          | 11                                | 16                                 | 5                   | 20.83%               |
| 8          | 7                                 | 12                                 | 5                   | 20.83%               |
| 9          | 7                                 | 12                                 | 5                   | 20.83%               |
| 10         | 5                                 | 11                                 | 6                   | 20.00%               |
| 11         | 9                                 | 14                                 | 5                   | 20.83%               |
| 12         | 7                                 | 12                                 | 5                   | 20.83%               |
| 13         | 8                                 | 13                                 | 5                   | 20.83%               |
| 14         | 9                                 | 14                                 | 5                   | 20.83%               |

Table 1 (to)

| Student ID | Pretest Scores<br>(Full Score=24) | Posttest Scores<br>(Full Score=24) | Score<br>Difference | %Score<br>Difference |
|------------|-----------------------------------|------------------------------------|---------------------|----------------------|
| 15         | 7                                 | 12                                 | 5                   | 20.83%               |
| 16         | 4                                 | 10                                 | 6                   | 20.00%               |
| 17         | 8                                 | 13                                 | 5                   | 20.83%               |
| 18         | 7                                 | 12                                 | 5                   | 20.83%               |
| 19         | 5                                 | 11                                 | 6                   | 20.00%               |
| 20         | 7                                 | 12                                 | 5                   | 20.83%               |
| 21         | 10                                | 15                                 | 5                   | 20.83%               |
| 22         | 8                                 | 13                                 | 5                   | 20.83%               |
| 23         | 5                                 | 10                                 | 5                   | 20.83%               |
| 24         | 6                                 | 11                                 | 5                   | 20.83%               |
| 25         | 11                                | 16                                 | 5                   | 20.83%               |
| 26         | 9                                 | 14                                 | 5                   | 20.83%               |
| 27         | 8                                 | 13                                 | 5                   | 20.83%               |
| 28         | 4                                 | 9                                  | 5                   | 20.83%               |
| 29         | 10                                | 15                                 | 5                   | 20.83%               |
| 30         | 6                                 | 11                                 | 5                   | 20.83%               |
| $\bar{X}$  | 7.27                              | 12.50                              | 5.24                | 20.66%               |

## RESULTS CONCLUSION

### Research Results

#### 1. Analysis of English-Speaking Skill Test Scores

The table 1 represents the pretest scores and posttest scores of the participants. The pretest scores showed that only one participant scored the highest of 11 points whereas maximum participants scored 4 which was even below the qualifying scores from total scores of 24. However, the posttest scores indicated that participants showed obvious improvement in their speaking skill after the integration of VR and AI with a situational teaching method intervention. The highest score reached 16 points, while the lowest remained at 9 points.

#### Pretest-Posttest Comparison

Table 2 presents the analysis of test scores using a paired sample t-test. The pretest had a mean score of 7.27 with a standard deviation of 1.94, while the posttest had a mean score

of 12.50 with a standard deviation of 1.78. The mean difference of 5.24, with a significance value of 0.01, indicated an improvement in participants' speaking skill following the integration of VR and AI with a situational teaching method intervention.

According to the data presented in Table 3, students demonstrated significant gains in their oral English proficiency across several key dimensions, including pronunciation, grammar and accuracy, vocabulary, content, confidence, and engagement.

**Table 2** Paired Sample T-test.

| Group  | Pretest |      | Posttest |      | Mean Difference | T     | P-Value |
|--------|---------|------|----------|------|-----------------|-------|---------|
| Sample | X       | SD   | X        | SD   |                 |       |         |
| Group  | 7.27    | 1.94 | 12.50    | 1.78 | 5.24            | 10.88 | 0.01    |

Significance level(p):  $P \leq 0.01$

**Table 3** Some of Students' Speaking Performance

| Student ID | Rubrics       | Pre-test | Post test | Improvement Rate |
|------------|---------------|----------|-----------|------------------|
| 4          | Pronunciation | 2        | 3         | 50.0%            |
|            | Fluency       | 1        | 2         | 33.3%            |
|            | Grammar       | 2        | 3         | 50.0%            |
|            | Vocabulary    | 2        | 3         | 50.0%            |
|            | Content       | 1        | 2         | 33.3%            |
|            | Confidence    | 2        | 2         | 0.0%             |
| 14         | Pronunciation | 2        | 2         | 0.0%             |
|            | Fluency       | 2        | 3         | 50.0%            |
|            | Grammar       | 1        | 2         | 33.3%            |
|            | Vocabulary    | 2        | 3         | 50.0%            |
|            | Content       | 1        | 2         | 33.3%            |
|            | Confidence    | 1        | 2         | 33.3%            |
|            | Confidence    | 0        | 1         | 25.0%            |

Table 3 (to)

| Student ID | Rubrics       | Pre-test | Post test | Improvement Rate |
|------------|---------------|----------|-----------|------------------|
| 24         | Pronunciation | 1        | 2         | 33.3%            |
|            | Fluency       | 1        | 2         | 33.3%            |
|            | Grammar       | 1        | 2         | 33.3%            |
|            | Vocabulary    | 1        | 2         | 33.3%            |
|            | Content       | 1        | 2         | 33.3%            |
|            | Confidence    | 1        | 1         | 0.0%             |

## 2. Analysis of Semi-structured Interview

Semi-structured interviews were conducted to evaluate student satisfaction with the integration of VR/AI with a situational teaching method. Thirty participants were divided into six groups for face-to-face sessions, with questions focusing on Interest/Motivation, Engagement, and Learning Effectiveness. Interviews, conducted in English, were recorded via notes and audio. Data were analyzed thematically to ensure response accuracy. The questions are presented below:

### Part A: Interest and Motivation

Question 1: How did you feel about the use of this teaching method in the classroom?

Question 2: Did any of the tasks you carried out motivate you to speak? How?

### Part B: Engagement

Question 3: Which stage of the integration of VR and AI with a situational teaching method did you find most interesting and meaningful?

Question 4: Why did you find this stage (mentioned in question 3) the most interesting and meaningful?

Part C: Effectiveness of integration of VR and AI with a situational teaching method on student's learning

Question 5. What did you think about using integration of VR and AI with a situational teaching method regularly in English-speaking classes?

Question 6. Share your views on the use of integration of VR and AI with a situational teaching method in English-speaking class?

Up to this, the result of this study has been presented. The research objectives of the study significantly and remarkably addressed.

**Student: 14**

**Semi-structured interview questions**

**Part A: Interest and Motivation**

1. How did you feel about the use of integration of VR and AI with a situational teaching method in the classroom?  
*"I enjoy working with my friends, and it has helped improve my speaking skills."*

2. Did any of the tasks you carried out motivate you to speak? How?  
*Yes, I liked talking in the VR world.*

**Part B: Engagement**

3. Which stage of integration of VR and AI with a situational teaching method did you find most interesting and meaningful?  
*I liked "before stage"*

4. Why did you find this stage (mentioned in question 3) the most interesting and meaningful?  
*because learning key words helped me to speak more easily.*

**Part C: Efficacy of integration of VR and AI with a situational teaching method on students' learning**

5. What did you think about using integration of VR and AI with a situational teaching method regularly in English-speaking classes?  
*I learn how to talk in different real situation.*

6. Share your views on the use of integration of VR and AI with a situational teaching method in English-speaking class?  
*It helps me be more active in class.*

Figure 9 One of Semi-structured-interview from students

## SUGGESTIONS AND RECOMMENDATIONS

Based on the study's findings, the following recommendations are proposed:

- 1) Expand the implementation of VR and AI-integrated situational teaching across different grade levels, given its demonstrated effectiveness in improving speaking skills and student engagement.
- 2) Incorporate speaking-focused methods like this approach into writing instruction, as observed gains in verbal confidence showed positive transfer to written expression.
- 3) Ensure virtual scenarios are carefully designed to align with students' specific learning needs and cultural contexts when adopting this method.
- 4) Prioritize speaking practice through this integrated approach, which creates low-stress, immersive environments that reduce anxiety while building fluency.
- 5) Invest in ongoing teacher training to ensure successful implementation and maximize the method's potential for creating interactive, engaging learning experiences.

In summary, VR and AI integration with situational teaching offers an effective alternative to traditional methods, significantly enhancing students' English speaking abilities and learning satisfaction.

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