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Race to Proficiency: Augmented Reality Game in the Second Language Classroom

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The Study

The present study attempts to examine differential effect that a task-based AR game vs a traditional learning environment plays in enhancing language learners' oral proficiency. Lave & Wenger's (1995) situated learning theory and Robinson's Cognition Hypothesis (1999) serve as the theoretical framework for this investigation.

What is augmented reality (AR)

AR is a "superimposed view of a physical, real-world environment whose elements are augmented by computer sensory input such as sound, video, graphics, or GPS data. Therefore, one's current perception of reality is enhanced by technology.

The Research Design

The concept of the reality TV show "Amazing Race" is the basis for the design of the AR game.
The participants must complete challenges by finding and scanning clues (QR codes) placed in different areas on the campus. Each challenge is based on a cultural aspect of the target country or a grammar point of the target language.

Research Questions

- Is there a differential effect of task-based language instruction on oral proficiency in AR vs. non-AR game-based environments over time?
- What are language students' perceptions about language learning activities in AR vs. non-AR game-based environments? Is there a relationship between these attitudes and student gains in oral proficiency in these environments over time?

The two groups will work on 5 units of materials for 12 weeks – at the end of each unit they will complete a task/challenge in class or using the AR game.

Methodology

The experimental design will involve students alternating between traditional classroom activities and AR-game activities. At the end of each lesson (total 5) the experimental group will complete tasks using the AR-game while the control group will complete the traditional classroom tasks.

Instruments

An oral pre-test wil be administered before the experiment begins and post-tests wil be administered to evaluate participants' oral skills at the end of each lesson. Recordings of AR activities (aural and written), a post-interview questionnaire, to know students' perception about the experiment, will also be analysed.

Results

IIt is expected that the type of tasks used and the authentic situated environment provided by the AR will be the factors that aid in the oral input outcome and positive learning attitudes toward the target language.

It is expected that the results will show that there is significant improvement in the oral skills of the participants who use the AR environment as opposed to the traditional classroom instruction.

For summary and references scan me