

CULTURAL EDUCATION

RECREATING HERITAGE THROUGH A VIETNAMESE LANGUAGE TEACHING PROGRAM APPLYING ADVENTURE GAME THEORY AND VIRTUAL REALITY

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Abstract

This paper introduces an innovative and interesting idea for teaching Vietnamese. Although the exchange between countries has recently become much easier, many Vietnamese language learners still lack opportunities to be exposed to real-life Vietnamese language and culture. To solve this problem, distance learning - online learning - is a very timely solution that can meet some of the lacking needs for quality teachers and boring programs. However, many packaged online teaching programs are still lacking in direct interaction functionality; and the learning content is still formulaic. With the motto "learning through action", "learning by playing", learning as an exciting adventure, the research group proposes the idea of a Vietnamese language teaching program embedded in an exciting adventure game to explore Vietnamese culture and life according to the specific needs of the learners. Virtual reality technology will support the players to immerse themselves in the space and practice language and culture more naturally and vividly. Especially, the program will integrate automatic communication between learners and the information management system, but also have a space for real communication between learners and instructors when scheduled or upon request, and a space for communication for those who are learning Vietnamese together. In addition to providing language skills, cultural knowledge, and social skills, the program also aims at the ethical values of human beings. This idea can therefore make a practical contribution to innovating the teaching and learning methods of Vietnamese to speakers of other languages in particular and other languages in general.

Keywords: *Vietnamese language, Vietnamese culture, virtual reality, teaching program, online*

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1. TEACHING AND LEARNING VIETNAMESE TO SPEAKERS OF OTHER LANGUAGES

1.1. Opportunities and challenges in teaching and learning Vietnamese as a non-native language

Globalization has brought cultures closer together. Vietnamese language and culture have also received more attention from countries around the world. Currently, the demand to learn Vietnamese as a foreign language for work, marriage, exchange, entertainment, ... is growing higher and higher.

Nowadays, overseas Vietnamese are dramatically increasing and have the need to pass on, as well as the need to self-learn and explore Vietnamese as a "heritage"* language of their parents and grandparents.

In Vietnam, even in the very place where Vietnamese is the mother tongue, in the trend of

internationalizing education, Vietnamese in international schools is taught only as a foreign language. Children in English, German, and French-speaking environments, where these languages are the main teaching medium, have more difficulties using Vietnamese than other school languages.

The prevalence of Vietnamese as a foreign language † can also be seen through the organization of Vietnamese language courses at language centers, schools, and on the internet. Online educational platforms like Duolingo and Memrise have also provided Vietnamese language courses as a foreign language for the global learning community. However, due to the lack of official data and the rapid development of learning Vietnamese as a foreign language, it is impossible to

* The term "heritage language" emerged in educational research in the 1970s to refer to the acquisition of languages other than English and French by bilingual students in Canada. Later, in the late 1990s, this term was widely used in the United States to refer to the cultural and ethnic languages (Cummins, 1983, p.7; Cummins, 2005, p. 585). Heritage languages include the languages of immigrant communities (e.g. German for the German community in the US, Vietnamese for the Vietnamese community in Germany); the languages of minority ethnic groups (e.g. Basque in Spain, Hmong in Vietnam); and the languages of indigenous peoples (e.g. Navajo in the US, Dyirbal in Australia). Specifically, Rothman (2009, p. 156) defined a heritage language as follows: A language is considered a heritage language if it is a language used at home or encountered at an early age by an individual, but is not the dominant language used by the larger community to which that individual

belongs. Similar to the acquisition of a first language in a monolingual society and the acquisition of two or more languages in multilingual/multicultural societies, a heritage language is acquired through naturalistic communicative interaction and exposure as an innate mechanism. However, the difference lies in the potential quantity and quality differences related to: heritage language input, the influence of the majority administrative language, and differences in literacy and formal education. These differences may result in what appears on the surface to be an arrested or attritional development of the heritage language along the ultimate attainment journey of these bi/multilinguals.

† Vietnamese as a foreign language: Used in this paper with the inclusive meaning encompassing the terms: second language, heritage language, foreign language.

determine the exact number of learners currently.

In sum, the teaching and learning of Vietnamese as a foreign language currently has a large number of students, and needs to be given proper attention to quality. Although there have been many efforts to innovate: applying information technology in teaching and learning (online educational websites like Duolingo, Memrise have provided Vietnamese courses; some online platforms connecting teachers and learners like Preply, Verbling, Verbalplanet, Udemy; packaged online lessons of Vietnamese 123, LingoHut, Duolingo; lessons on YouTube) and innovative teaching methods (using songs in teaching, using movies in teaching, applying intercultural communication teaching methods, project-based teaching methods, flipped classrooms, ...) but currently, the teaching and learning of Vietnamese as a foreign language still has many shortcomings such as:

- Limited teaching materials

One of the major challenges in teaching and learning Vietnamese as a foreign language or heritage language is the lack of rich and suitable teaching materials (Le Van Loi, 2021). Although in recent years, there have been more Vietnamese language textbooks for foreigners, the textbook series by Doan Thiet Thuat (A1, A2, B, C) and the textbook series by Nguyen Van Hue (6 volumes) are relatively comprehensive

and widely used. However, the current textbooks are still not up-to-date and modern. This can make it difficult for lecturers and students to find suitable materials to learn and teach. Students and teachers in schools also share these concerns when asked.

- Lack of quality human resources

Finding lecturers with high professional qualifications and the ability to teach Vietnamese as a foreign language is also a challenge. People with good Vietnamese proficiency and cultural knowledge will have to be combined with effective teaching skills to ensure successful learning. But as the number of learners is increasing while the teachers still lack of training in pedagogy, intercultural communication skills, language and cultural knowledge, leading to the situation that learners feel that they have not been taught enthusiastically and comprehensively. Korean students studying at one of the schools that have valued Vietnamese learning still shared with us about the lack of opportunities to exchange, chat and share with teachers because the teachers do not have enough ability to use foreign languages. Moreover, many subjects that they want to learn in depth are also not taught due to the lack of staff to develop and teach the program.

- Lack of family and social support

In the case of learning Vietnamese as a heritage language, another

challenge is the lack of support from families and society. Although there are families who are concerned about maintaining Vietnamese and Vietnamese culture for the next generation, there are also many busy families who go to work from early morning until late at night and do not care about their children's use of Vietnamese. Therefore, many young people can only listen and understand, or even do not know Vietnamese anymore.

Moreover, it is only in cities with a dense Vietnamese population and with an enthusiastic Vietnamese team that Vietnamese language classes can be organized in schools, churches, or temples. In places with sparse population, Vietnamese will only be learned at home if parents are interested. The governments of the host countries have some interest in developing Vietnamese for the Vietnamese-origin population, but not much, and the Vietnamese government can only provide macro-level strategies. That is why maintaining the Vietnamese language of the younger generation abroad is still very difficult (Tran Thi Minh, 2019).

– Lack of practice environment

Learners of Vietnamese as a foreign language who are not in Vietnam also

face another problem, which is the lack of an environment to practice. The fact is that many foreign students who have studied Vietnamese for 4 years find it very difficult to communicate in Vietnamese when they come to Vietnam. When interviewed, student Lee * said that there are not many opportunities to communicate in his place of study, the teachers' ability to speak English and Korean is limited, so they cannot explain much content to students, and many subjects that they see as necessary like translation, cultural studies, ... are not taught.

Moreover, students learning Vietnamese as a heritage language who want to get closer to the language and culture of their roots share about the lack of opportunities to practice speaking and writing skills. Although their listening and understanding skills are relatively good, they still have many problems with speaking, reading, and writing due to the lack of a learning environment.†

Online programs and classes have emerged as a solution to the above shortages of resources and human resources. Part 1.2 will briefly review the characteristics of current online teaching and learning programs.

* Name has been changed (anonymized), direct conversation in Hanoi, Vietnam in March 2023.

† Conversation with 5 cheerful students learning Vietnamese (ages 20-35) from October 2020 - December 2022.

1.2. Online Vietnamese language teaching

To be able to solve the problems of human resources, environment, and opportunities to interact in Vietnamese for learners, online teaching and learning of Vietnamese has emerged as an inevitable consequence. We can list some advantages of online learning as follows:

Convenience and flexibility: Online learning allows learners to participate in Vietnamese language courses from anywhere, without the need to travel to traditional teaching centers. Learners can participate in online lessons according to a flexible schedule, making efficient use of their time.

Diverse access to materials: Learners can access many teaching materials, textbooks, lectures, and exercises. Many online learning platforms provide interactive multimedia teaching materials, helping learners understand deeper and practice Vietnamese in a more diverse way.

Interaction and feedback: Although not being able to meet the teacher directly, with modern digital platforms, the learner can communicate quite easily with the teacher. The important thing is that the learner can choose from many teachers from different regions, with different levels of qualifications and styles, to best suit the learner's needs.

Multicultural learning environment: Learners have the opportunity to exchange with learners from all over the world, creating a multicultural, internationalized learning environment, helping learners not only learn Vietnamese and Vietnamese culture but also access different perspectives from other learners from different cultures.

Although there are certain advantages, currently, online teaching and learning of Vietnamese and Vietnamese culture is still purely in two directions: (1) providing online lessons, with learners self-learning according to the available content (YouTube, Duolingo); (2) teachers teach directly on connecting platforms like Zoom, Google Meet or company-created platforms (Horami). Both of these forms, although having made progress to support the lack of materials and human resources, are still not completely new and attractive in terms of content. Improving the content and teaching methods to make learners feel enthusiastic about learning is the key.

Nowadays, technology has developed tremendously. From the global hit Pokemon Go virtual reality game a decade ago, virtual reality technology has been increasingly developed. Gamification in teaching, learning through the implementation of games, adventures (adventure games) has become a quite popular

teaching method in many English and other popular language software. However, a gamified, multi-interactive product is still not yet developed in a comprehensive manner. "I Lai Vietnam" is an idea that integrates different advantages of learning through play, through practice with diverse interaction channels to overcome the shortcomings of current online teaching methods.

2. PERSONALIZATION OF LEARNERS AND APPLICATION OF VIRTUAL REALITY IN TEACHING

2.1. Individualized learning

In 1997, a debate broke out between researchers from the psychological linguistics school and the social linguistics school. Researchers in the psychological linguistics school mainly valued the cognitive process and believed that the mechanism of language perception is similar. Therefore, up to that point, in studies on second language acquisition, individual characteristics were only considered as marginal data. While the similarities of learners and viewing the language learning process as having common characteristics were emphasized and considered as suggestions for building teaching methods (Nizegorodcew and Pawlak 20, xx).

Since 2005, scientists have focused on exploiting individual differences of learners in language learning. Dörnyei

and Skehan (2003), Ehrman et al. (2003), Gass and Selinker (2008) are the ones who have begun to emphasize individual differences in teaching and learning. Dörnyei and Skehan (2003) focused on researching factors that they believe influence the success in learning a second language such as aptitude, cognitive/learning styles, learning strategies, and learning motivation. Ehrman et al. (2003) also discussed learning styles, learning strategies, and other positive influencing factors. Along with that trend, Gass and Selinker (2008) discussed non-linguistic individual factors such as social distance, age, aptitude, motivation, personality, style, and learning strategies.

Nizegorodcew and Pawlaw (2012) argue that focusing on individual differences of learners is important, but an important issue is that the characteristics of teachers also need to be actively researched. Foreign language teachers are mostly non-native speakers, and even if they are native speakers, their basic knowledge as well as their preferences and habits are also not the same. Therefore, researching the differences of teachers as well as individualizing teachers needs to be strengthened.

Both individualized learners and teachers can be called the process of personalizing teaching and learning. Individualized teaching is the process

of customizing teaching methods and learning content to meet the individual needs and abilities of each student. This is to create the best learning environment for each individual, ensuring that they can progress and develop to the maximum. (Hattie and Zierer, 2018) Based on the views of Nizegorodcew and Pawlak, (2012), we believe that the individualized teachers, diversifying teaching resources, to create many choices, combining to suit and be effective between teachers and learners is a necessary task. Individualized teaching can be implemented by applying various methods and techniques, including:

Assessing competence and needs: To personalize the teaching and learning process, instructors need to assess the learning abilities and needs of each student. This can be done through tests, interviews, or observations to better understand their current level, learning goals, and learning styles.

Creating individualized learning plans: Based on the assessment, instructors can create personalized learning plans for each student. These plans can include specific learning objectives, appropriate activities, and materials to achieve those objectives.

Using diverse teaching methods: Personalized teaching is also related to using diverse teaching methods to suit each student. Instructors can apply methods such as group discussion,

hands-on practice, educational games, or using technology in teaching to stimulate interaction and enhance student engagement.

Providing individual feedback and guidance: Instructors play an important role in providing individual feedback and guidance to each student. This feedback and guidance should focus on the student's strengths and weaknesses, encouraging and supporting them in the learning process.

In research on games and team training, individual training, Oneil et al. (2008), game programs can all guide the development of team skills or individual skills. Among them, the workload status and performance of the players are evaluated by different tools.

Personalized teaching is an important method to meet the diverse needs of learners and ensure that they can progress and succeed in their learning. "I Lai Vietnam" aims to personalize learners by providing diverse content and learning methods so that learners can choose the content that is most compatible with their interests, needs, and abilities. Of course, this selection process will be based on a well-organized skill assessment.

2.2. Virtual reality in teaching

Virtual reality is a technology that can help people "feel" a simulated space through a 3D viewing glasses.

This 3D virtual environment is usually created and controlled by a high-configuration computer system (Pan et al. 2006). In particular, not only displaying vivid images, some VR systems also allow quite realistic simulation of sounds and smells.

Virtual Reality (VR) is a technology that has been widely applied in many different areas of life to save time, shorten space and time, and reduce risks, while also attracting users as if they are observing objects, experiencing activities as in the real world: in space science, psychological treatment, sales, tourism, ect. For example, virtual reality has helped the tourism industry develop impressively, allowing tourists who want to travel to observe the world through this lens if they have not or cannot go to the places they want to go. This also supports sustainable development in tourism as travel and environmental damage occur quite frequently on popular tourist routes (Dewailly, 2007).

Virtual reality technology is also being increasingly applied in the field of teaching and learning. The use of virtual reality in the teaching and learning process brings many benefits and practical applications for learners. Here are some characteristics of virtual reality in teaching (Merchant et al, 2014):

Interactive learning experience: Virtual reality allows learners to

interact with the virtual learning environment and experience learning in a realistic way. They can participate in activities, interact with virtual objects, and perform learning tasks in a realistic way. For example, students can participate in a history lesson and "travel back in time" through a VR experience, helping them understand and remember the knowledge more clearly.

Creating a realistic learning environment: Virtual reality helps to create a realistic and vivid virtual learning environment. Learners can participate in real-life situations and apply their knowledge to solve problems or perform tasks. For example, learners can practice communication skills in a virtual environment and receive immediate feedback from the instructor or the VR system. It can be used to provide learners with a virtual environment where they can develop their skills without consequences in the real world. This is why virtual reality is widely applied in teaching subjects such as anatomy, military, astronaut training, mining training, ect.

Exploration and new experiences: Virtual reality opens up new experiential possibilities for learners. They can explore places, environments, or events without physically going there. For example, students can virtually visit historical sites, explore

the universe, or experience different cultures through VR experiences.

Multilingual learning: Virtual reality provides the ability to learn multiple languages, supporting learners in grasping and practicing new languages. They can interact with virtual objects, people, and environments in the language they are learning, helping to improve their language skills.

The application of virtual reality in teaching and learning brings interactive, participative, and multidimensional experiences for learners. It opens up new doors in enhancing learning experiences and exploring knowledge.

In Vietnam today, modern universities are also beginning to pay attention to applying virtual reality in teaching. Vingroup University has been researching and experimenting with teaching communication skills through virtual reality: "Like I'm There": Enhancing communication soft skills with Virtual Reality *. Research on teaching Vietnamese language programs using virtual reality technology "I Lai Vietnam" also meets this development orientation.

3. "I LAI VIETNAM" - A TECHNOLOGICAL SOLUTION FOR ACCESSING VIETNAMESE LANGUAGE AND CULTURE

3.1. The name "I Lai Vietnam"

The word "lai" is used as a verb in the Vietnamese Dictionary by Hoang Phe (2004) and is defined as: "To allow the cross-breeding of a male and female from different species, or to graft one plant onto another, or to use artificial insemination or pollination to create a new breed." (Hoang Phe, 2004, p.536). The adjective "lai" is used to refer to people born to parents of different ethnicities or created through cross-breeding, such as mixed-breed children, crossbred pigs, hybrid apples.

In the title of this program, "lai" is a verb indicating the state of blending different cultures of the subject "I". Learning a new language and accessing a new culture will bring new experiences and emotions. When learners become familiar with the Vietnamese language and culture, and integrate into it, they may feel they have taken on a part of Vietnam, hence the phrase "I lai Vietnam". "Lai" is also pronounced similarly to "like" in English.

This title employs a play on words to emphasize that learners of Vietnamese have begun to be influenced by and attracted to

* Poster presented at the Learning Summit 2022, organized by Vin University and Vietnam National University, Hanoi.

Vietnamese culture, feeling close and connected to Vietnam.

3.2. Features of the Game

The goal of the adventure game - a learning program through playing - is to provide an excellent experience for the players, helping them learn the language through the process of exploring and understanding the diverse culture, history, and landscapes of Vietnam. Here are some features of the game "I Lai Vietnam":

- **Storyline and Objectives:**

In the game, players will take on the role of a character and participate in various missions across Vietnam. The main objective of the game is to explore, solve puzzles, and complete missions to progress through the story and discover new locations. While carrying out these missions, players/learners will be "trained" in language skills necessary to complete the tasks. For example: When learners are assigned a mission to visit a village, they must solve a code to open the village gate. After entering the correct code, the gate will open. Once inside the village, if players want to obtain daily necessities, they need to complete tasks assigned by the village chief, such as memorizing the names of common Vietnamese agricultural tools to take them out to the fields. With missions nested within the story, players will become immersed in the narrative as

the main character, naturally combining learning and playing.

- **Game Features:**

The "I lai Vietnam" game offers many engaging gameplay features such as exploration, interaction with characters and environments, puzzle-solving, combat, character equipment, and upgrades. Players can customize their characters and choose suitable means of transportation like motorcycles, cars, boats, etc. Players can also choose the area they want to experience and the language proficiency level they wish to develop.

Players/learners can utilize diverse input sources (reading texts, listening texts, images, videos) and interactions (typing, recording, handwriting) to comprehensively develop their listening, speaking, reading, and writing skills.

Players/learners can interact with characters in the game, with supporting characters, and with instructors when requested. Students participate in classes with scheduled sessions with teachers and interact with other players who share their interests.

- **Educational Value of the Game:**

"I lai Vietnam" is not only entertaining but also serves an educational role: (1) helping players learn Vietnamese; (2) helping players explore Vietnamese culture, history, and geography; (3) helping players

interact with others who share their interests, developing social skills; (4) promoting humane behaviors and social-emotional learning. The game also enhances players' thinking abilities, reflexes, and problem-solving skills.

– Individualized Learning:

"I lai Vietnam" has different modules for different regions and different proficiency levels. Learners can choose modules according to their individual needs and interests. Learners can also choose interaction modes with the assistance of virtual assistants or real teachers based on their needs and abilities.

– Graphics and Audio:

"I lai Vietnam" is expected to utilize high-quality maps and graphics, mimicking reality and striving to recreate historical settings as well as creating imaginative spaces in harmony with Vietnamese culture and aesthetics. Players will experience diverse landscapes from rural areas to big cities, from mountains and forests to beaches, from real-world spaces in the virtual world to the imaginary spaces of captivating and authentic folk tales.

– Development Plan:

The game will continuously update with new modules, content, and features, allowing players to experience new regions and stories. Additionally, the development team will listen to feedback from the

community and provide technical support and adjustments to meet the players' preferences while ensuring educational and scientific integrity in the lesson content.

4. CONCLUSION

The demand for learning Vietnamese as a non-native language is increasing due to the needs for cooperation, education, religion, marriage, culture, and connection from foreigners, overseas Vietnamese, and Vietnamese students attending international schools in Vietnam. This presents both an opportunity and a challenge for the Vietnamese language teaching field. Online Vietnamese language teaching has become a relatively effective solution to address the shortage of teaching personnel. However, online teaching, direct instruction by teachers, or passive exercise completion on applications still lacks appeal for learners. To enhance the effectiveness and attractiveness of online teaching programs, our research team has turned to virtual reality technology combined with adventure games. The concept of a game called "I lai Vietnam" addresses the shortcomings of current teaching applications by providing comprehensive interaction modes, covering all language skills, and facilitating learning through engaging gameplay. With the desire for learners to study anywhere, anytime, connect with anyone they want, and learn what

they want and need in a lively and flexible manner, "I lai Vietnam" hopes to soon help many Vietnamese language learners feel closer to the Vietnamese language and culture, soon becoming "lai" (blended with) Vietnamese people and soon "liking" the Vietnamese language and culture.

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