

Abstract

This project intends to create an AR language learning platform embedded with Suzhou local culture for intermediate-level Chinese learners, especially those who haven't been to Suzhou due to the pandemic. It investigates intermediate-level Chinese learners' learning needs and constructs the AR environments based on a need analysis. Multiple short videos (around 3 min) produced based on the real-life experiences of expats in Suzhou are integrated to guide the future users when they walk through the tours. Hotspots and clickable objects allow future users to discover the AR world by themselves. Situational authenticity implemented can bring Chinese learners an immersive language and culture experience.

Methodology

Two approaches

1. Questionnaire

Before the platform building, the research students circulated questionnaire to target users and their teachers to penetrate the future users' needs on the platform and their learning needs on Chinese language and Suzhou culture. 5-likert scale was applied in the questionnaire. We received 21 feedbacks from students and teachers.

2. Interview

Semi-structured interview allows the research students to seek opinions and perspectives from expats in Suzhou. It allows flexible questions from the research students and answers by the expats. 11 expats in Suzhou were interviewed. The research students analyzed the transcribed interview, summarized, and wrote the scripts accordingly. The Chinese teachers, native Chinese speakers and interviewees were consulted to make sure the scripts are authentic and are from real-world experiences.

Two research theories

1. Performed Culture Approach

PCA, a "paradigm-shifting pedagogical framework", emphasizes culture as a concept that presents context of communication in Chinese, especially the conflicting context. It shows students what to do in those contexts after identifying the conflicts. It helps learners communicate with native speakers in linguistically and culturally appropriate ways, so they can navigate in the target culture successfully (Walker, 2020).

2. E-learning theory

E-learning theory is built on cognitive science principles that demonstrate how the use and design of educational technology can enhance effective learning (Anon, 2015). Augmented reality (AR) can dynamically blend real-world environments and context-based digital information (Azuma, 1997), so it can put learners into an authentic linguistic and cultural context.

Platform Building

Authenticity

- The platform is established for international students who have not experienced real Suzhou life, and the 3D video provides them with an interface to an immersive environment. Moreover, the dialogue recorded is one of the frequent situations they can encounter when visiting a particular place. Students can learn about real life using VR headsets before going to China.



Diversity

- The platform users can choose appropriate learning materials upon what they would like to focus on to learn, and there are pictures, text, audio, and video provided in our learning platform. Since Suzhou's culture is specially blended into the dialogue and the text, it will be a good opportunity for international students to learn about improving their language skills and Suzhou culture.



Effective and Immediate Feedback

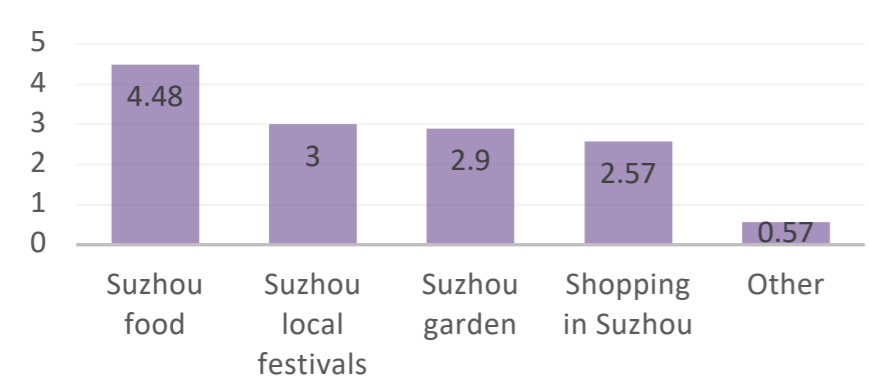
- Students can take a quick self-check quiz after reading and watching the conversations and videos. The quiz is a method to check whether they have obviously understood what they have learned or not. Effective and immediate feedback allows the learners to reflect on themselves to improve their future learning.



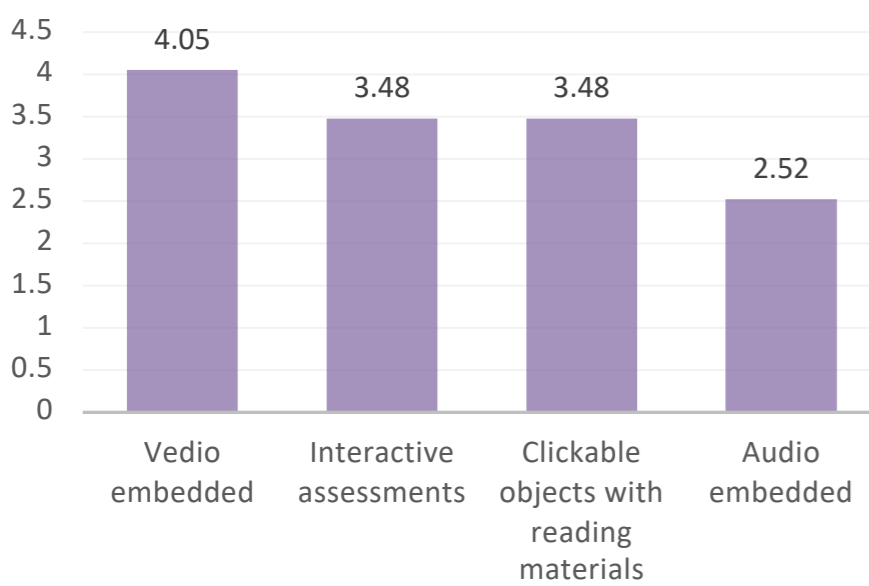
Result

Analysis of questionnaire

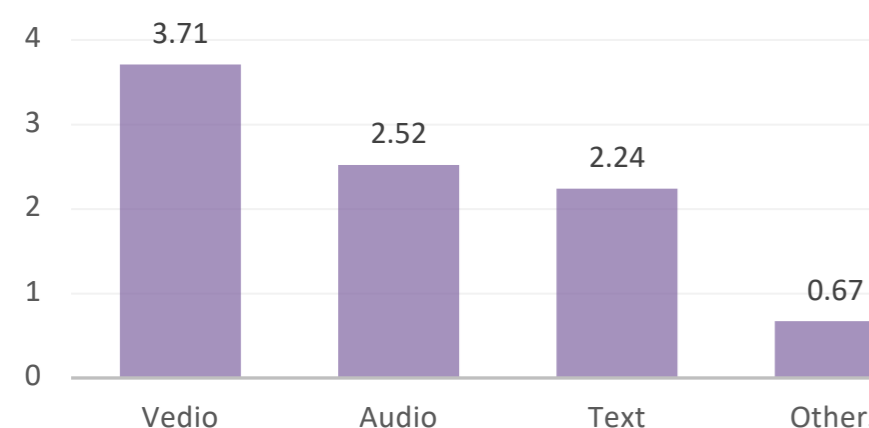
Ranking of Topics of Interest



Ranking of the Expected Functions



Types of Preferred Learning Materials



- According to the data of the questionnaire, we found that students were most interested in the topic of 'Suzhou food'. So, we organized a list of food topics and added some daily necessities, which contains 33 cultural points.

- Analysis of the data shows that students prefer authentic learning materials with real-life environments, so we edited dialogues based on real-life situations and filmed the environment as background. The Twin Pagodas Market was selected after comparison and consideration among several local sites for its life atmosphere and its cultural attractiveness.



- Based on the data, audio-visual learning materials are more motivating for the future users. Therefore, different types of learning materials were selected, including video, audio, pictures, and text. Self-assessment quizzes are also embedded for learners to check and monitor their own progress of learning.

Analysis of interview

- In the interview, we collected some typical scenarios that are widely seen in daily life. For example, some of the interviewees mentioned they were asked about having to show a health code and an itinerary code to go to a public place, so we incorporated that into the dialogue.

e.g.

Please find my answers below and the consent form attached.

- I can't say that I have had any serious cultural conflict in China. I suppose one situation that arises occasionally is when people take my photo in public without my permission. In my culture, it is fine to take photos of people in public. If they are doing something like a performance, or if they just happen to be in the background of a picture you are taking of something else. However, no-one would ever take a photo of a stranger while they were sitting having a coffee, lunch or just walking. I understand that this is because I am a foreigner and many Chinese people lack exposure to diversity... but it makes me wonder how they would feel if they went to New Zealand and the local people took their photos and pointed at them saying 'Look! Look! An ASIAN'. Seems crazy, right?
- A place I like to go in Suzhou is Li Gong Di. It is not only an excellent place for a walk or a cycle, but there are also many scenically located restaurants with great views of the lake. You can get all kinds of food there and the restaurants are generally very high quality.
- Settlers? You mean expats? I think the best suggestion is to use networking among other expats to find the wechat groups for the clubs/activity groups that do things you like to do. Within a couple of weeks you can already have a healthy and active routine started. For example, I joined the running club, the football club, a board games club, a badminton group and more, just by asking people that I met. There are also usually Chinese people in these clubs who speak English, so it can be a nice way to get to know the locals more easily. However, I would also definitely starting to learn Chinese as well. Even a little bit of Chinese is going to help you a lot!
- I witnessed a drunken group of Chinese people arguing outside a bar. Their argument got more and more intense and they started pushing each other. It culminated in one man picking up a traffic cone (you know, the big plastic triangle) and swinging it at his friend's head, but he lost his balance and fell over. Eventually, the police arrived to sort out the problem. I asked someone else who was watching what they were so angry about... they were all trying to be the one to pay the bill!

Conclusion

To conclude, our goal in this study is to set up an AR E-learning platform with real-scene dialogue and provide it for international students who have not experienced Suzhou culture. We use two methodologies to collect data from students: questionnaires and interviews. The data analysis shows that respondents are more interested in Suzhou food and prefer to learn by video embedded platform. However, it is necessary to consider whether the value of this platform will remain the same at a time when international students are available to enter Suzhou after the Covid-19 pandemic situation is over. Future research can be conducted on the effectiveness of using augmented reality (AR) to enhance student performance

Reference

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