

## Appendices

### Appendix 1. Demographic questionnaire

1. What is your gender?

- Female
- Male
- I prefer not to say

2. What is your age in years?

3. How long have you studied English at school?

4. Which aspect of English learning do you find most difficult?

- Listening
- Reading
- Writing
- Speaking

5. Which type of reading have you learned at school?

- Narrative reading 记叙文
- Descriptive reading 描写文
- Expository reading 说明文
- Persuasive reading 议论文

6. How difficult is it for you to read something for academic purposes (such as school homework/exam)

- Very difficult

- difficult
- not very difficult
- not at all difficult

7. What kind of activity will you do before reading?

- Search background information online
- Watch videos
- Brainstorm
- Check vocabulary
- Other, please specify

8. Do you think pictures or videos help you read expository text?

- Yes
- No
- I don't know

9. Have you used virtual reality (VR) technology to learn English or other subjects?

- Yes
- No

## Appendix 2. Cognitive load questionnaire

Please rate the following statement from 1 (totally disagree) to 5 (totally agree).

### Mental load

1. The learning content in this learning activity was complicated.
2. The instructional way in the learning activity was difficult to follow and understand.
3. It was troublesome to answer the questions in this learning activity.
4. During the learning activity, the way of content presentation was hard to follow.

### Mental effort

1. I felt frustrated answering the questions in this learning activity.
2. I did not have enough time to answer the questions in this learning activity.
3. I need to put lots of effort into answering the questions in this learning activity.
4. I have tried my best to answer the questions in this learning activity.

### Appendix 3. Interview questions

Questions	Rationale
What aspects of the VR/video assisted reading activity are most memorable to you?	Encouraging learners to reflect on the reading process.
How would you describe your reading experience with VR/video?	
Does the VR/video assisted reading activity help you know more about the reading topic? If so, how does it help you read expository text?	Asking learners to examine the effectiveness of multimodal text reading.
Do you think you would use VR/video again to learn English? If so, in what aspects do you plan to use it (vocabulary, writing, listening, storytelling, etc.)?	
Compared with using paper and pen to read print-based text, what do you think are the advantages of using VR/video in the reading activity?	Asking learners to identify advantages and disadvantages of multimedia in reading by comparing traditional print-based text reading and multimodal text reading.
Compared with using paper and pen to read print-based text, what do you think are the disadvantages of using VR/video in the reading activity?	

### **Informed Consent Form for Students**

**Project Title: Does ‘WOW’ translate to an ‘A’? Exploring the effects of virtual reality assisted multimodal text on Chinese Grade 8 EFL learners’ reading comprehension**

Dear Students,

My name is Yudan Su and I am a research student at the Faculty of Education, University of Cambridge. I would like to invite you to participate in my research on the effects of virtual reality assisted multimodal text on reading comprehension.

This project will be conducted over a period of five weeks. If you agree to participate, you will be asked to complete reading tests in week 1, 2, 3, and 5 respectively. There will be two sessions in week 2 and 3 that will take 20 minutes for you to watch a video or interact with the virtual world to assist your reading, and you will have another 20 minutes to finish the reading test. A cognitive load questionnaire will be administered after each session on week 2 and 3. For research purposes, some of you will be invited to have a group interview with me to talk about your multimodal text reading experience assisted by virtual reality or video, and the whole process will be recorded.

The research aims to explore the efficacy of virtual reality assisted multimodal text in enhancing secondary Chinese EFL students’ reading comprehension. I can guarantee that the research involved no known risks. This study has been reviewed by the University of Cambridge Faculty of Education Research Ethics Committee and has received ethics clearance. Your participation is anonymous and voluntary. All sessions and interview recordings and your reading test answers will be confidential and securely stored. At any time, you are free to change your mind or withdraw your consent.

If you have any further questions or need more information about what is involved in the research, please feel free to contact me at [ys499@cam.ac.uk](mailto:ys499@cam.ac.uk).

Thank you for your time and cooperation.

Yours sincerely,

Yudan Su  
MPhil Student  
Faculty of Education  
University of Cambridge