

Supplementary of Exploring the Integration of AI Chatbots into Task-based Language Teaching among Chinese Primary School Students: Associations with English-speaking Fluency and Anxiety

A. Figures

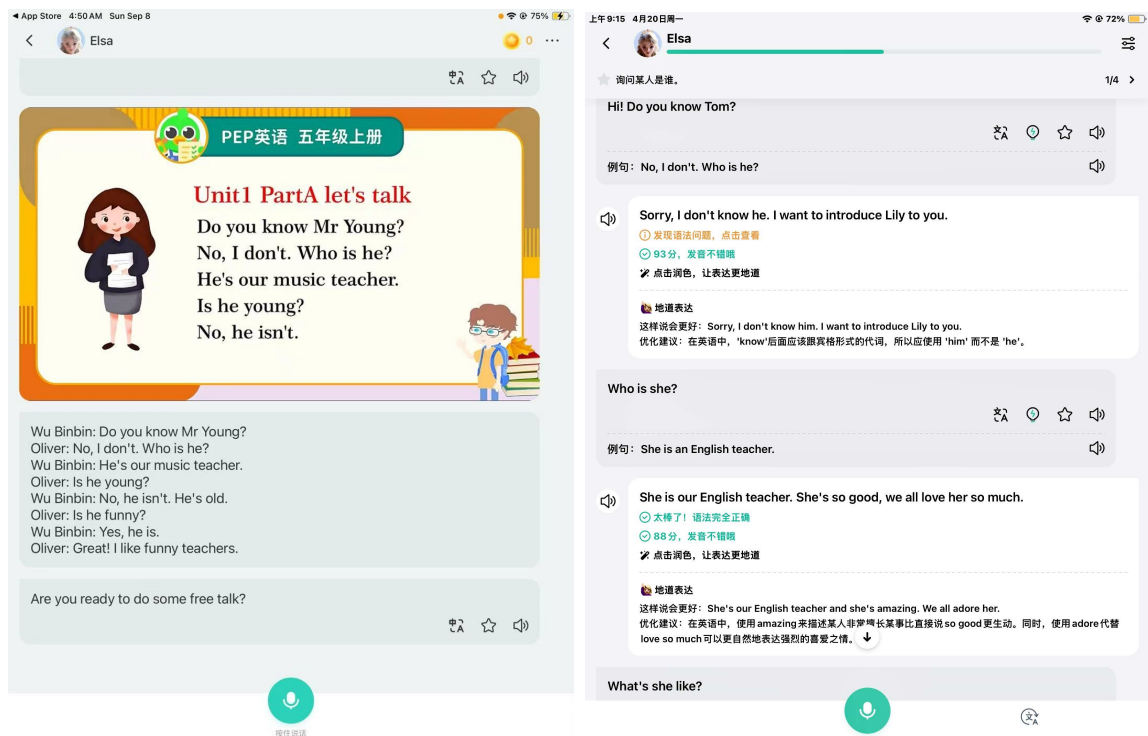


Fig. S1. AI chatbot scaffolding a textbook-aligned dialogue from the TBLT task cycle.

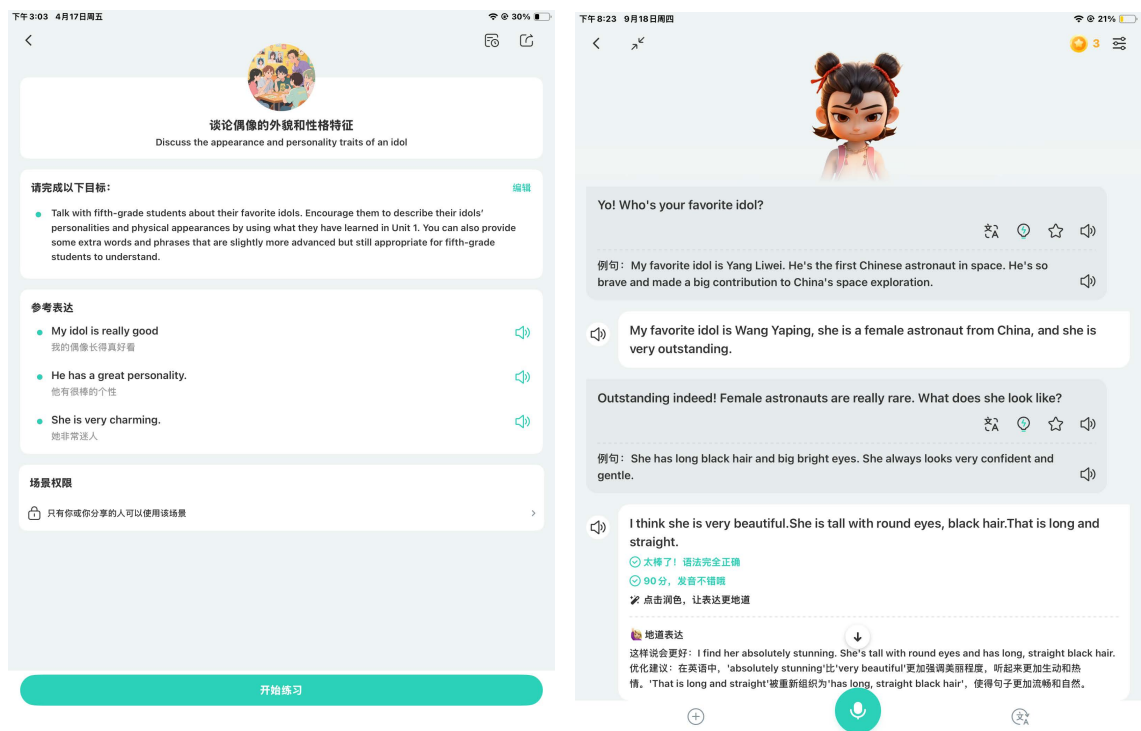


Fig. S2. AI chatbot extending the learning task to a personalized, situational dialogue.

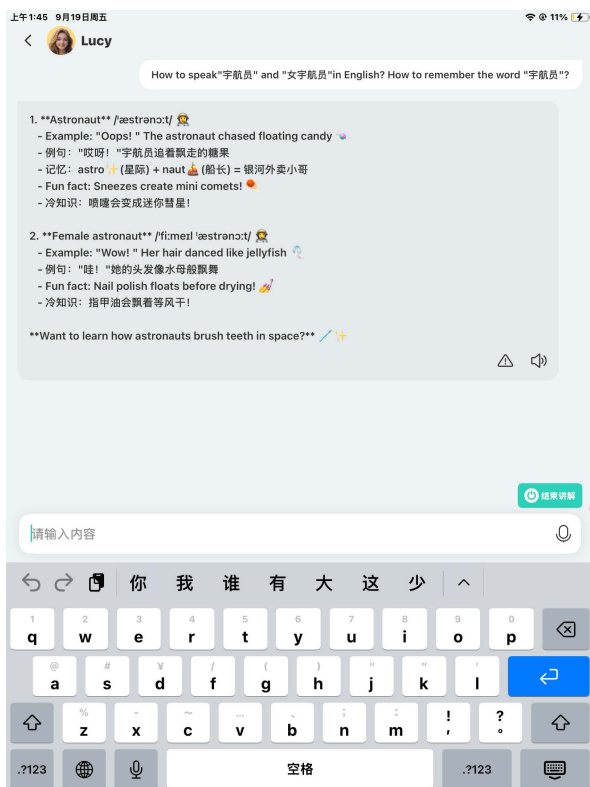


Fig. S3. AI chatbot providing direct linguistic scaffolding for vocabulary acquisition.

B. English Speaking Performance Test (Pre-test)

Section 1. Please read the following sentences correctly.

1. It's time for us to have dinner at 6 o'clock.
2. My father's black shoes cost eighty-five yuan.
3. I want to wear my sister's blue skirt.
4. The weather in Toronto is cold and cloudy.
5. The library is on the second floor.

Section 2. Please read the following passage correctly and pay attention to the pronunciation and intonation.

Here's the world weather. It is hot and sunny in Sydney today, so people are likely to wear T-shirts and sunglasses. Beijing is cloudy today, so people may take light jackets. It is rainy and cool in London, so people should take an umbrella and wear a coat. New York has sunny weather today, so people can wear comfortable clothes and go outside. The weather in Toronto is cool and partly cloudy, so long sleeves are a good idea. Today, the weather is different in different cities around the world. Before people go out, they should check the weather and choose the right clothes. If the weather changes, everyone should stay safe and keep warm. Have a great day, everyone!

Section 3. Please make up a short paragraph consisting of at least eight sentences based on the following questions.

1. Describe your hometown's weather.
2. Where is the music classroom in your school?
3. How many pandas does the Beijing Zoo have?
4. What color is your new sweater?
5. How do you like your hair?

Section 4. Please describe the following pictures.

Section 5. Describe what you do on a weekend day. What do you like to do most on weekends?

(Opportunities for students to speak and demonstrate their fluency - students need to speak spontaneously).



C. English Speaking Performance Test (Post-test)

Section 1. Please read the following sentences correctly.

1. Mr. Zhang will be your new Science teacher.
2. I have Science, Math, and PE on Fridays.
3. I often play football with my friends on Sunday mornings.
4. My brother's favorite drink is banana milk.
5. My grandma often goes shopping at the supermarket on Saturday afternoons.

Section 2. Please read the following passage correctly and pay attention to the pronunciation and intonation.

My grandpa's favorite food is hot pot. It is cool to eat hot pot on rainy days. My mother's favorite food is hot and sour fish because my mother likes seafood the most. My father's favorite food is beef noodles because he feels at home when he eats noodles. I like ice cream the most because it's sweet, and I am very happy after eating it. We usually eat these foods at home, and we enjoy sitting together at the table. When we have dinner, we often discuss our day and share our feelings. Sometimes I help my parents by setting the table or washing vegetables. I also enjoy listening to my family discuss why they love their favorite foods. Food is not only tasty for us, but it also brings our family closer.

Section 3. Please make up a short paragraph consisting of at least eight sentences based on the following questions.

1. Describe your English teacher's character.
2. What's your favorite food?
3. What's your favorite subject?
4. What do you often do on the weekend?
5. What do you have on Wednesdays?

Section 4. Please describe the following pictures.



Section 5. Tell me about the time you went on a trip with your family. Where did you go? What did you do? What was the best part?

(Opportunities for students to speak and demonstrate their fluency - students need to speak spontaneously).

D. Grading Rubric

The grading rubric for the English-speaking fluency performance test considers the four key aspects:

Grading Rubric			
Descriptors	1 point	2 points	3 points
Rate	The speaker speaks 40–79 words	The speaker speaks 80–119 words	The speaker speaks 120 or more
Hesitations	The speaker has hesitations (4 or more hesitations)	The speaker has some noticeable hesitations (from 2–3) and	The speaker has few noticeable hesitations (1

		short pauses (3 seconds or less)	or less) and few short pauses
Repetitions	The speaker makes many repetitions (4 or more)	The speaker makes some repetitions (from 2–3)	The speaker makes a few repetitions (1 or less)
Corrections	The speaker makes many corrections (4 or more)	The speaker makes some corrections (from 2–3)	The speaker makes a few corrections (1 or less)
Fluency Level			
	Poor Fluency Level	1–4	
	Medium Fluency Level	5–8	
	High Fluency Level	9–12	

E. The Foreign Language Classroom Speaking Anxiety Scale (FLCSAS)

I'm worried that other students in class speak better than I do.

I feel nervous speaking in front of the entire class.

I tremble when the teacher is about to ask me a question.

I am reluctant to express my opinion in a group.

I'm worried about making mistakes when I speak with the teacher.

I'm worried that my partner speaks English better than I do.

I am reluctant to ask the teacher a question.

I start to panic when I speak with a classmate in a pair.

I dislike speaking entirely

I'm worried that the teacher will think my speaking is no good.

I'm worried about making mistakes while speaking.

I feel nervous when I can't express my opinion.

I'm afraid my partner will laugh when I speak with a classmate in a pair.

I'm worried about making mistakes when I speak with a partner.

Answering a teacher's question in class is embarrassing.

Speaking in a group of classmates makes me feel self-conscious.

I feel tense when I have to speak with a classmate in a pair.

I start to panic when I have to speak in a group.

I'm afraid that others in a group discussion will laugh if I speak.

I can feel my heart pounding when it's my turn to speak in a group.