



Young Vietnamese Learners' English Speaking Practice with an AI Companion Robot: A Pilot Study

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1 INTRODUCTION & RESEARCH QUESTIONS

Young Vietnamese learners have limited opportunities to use English meaningfully in everyday life. This pilot study explores how an AI companion robot (GiGi) can provide additional, low-pressure speaking practice at home through short, story-based and bilingual interactions.

- RQ1** How does robot-mediated interaction influence children's willingness to speak English?
- RQ2** What forms of bilingual scaffolding appear to support children's comprehension and responses?
- RQ3** How do parents perceive the usefulness and limitations of at-home practice with an AI companion robot?

This study does not aim to replace teachers. GiGi is explored as a supplementary environment for low-pressure English speaking practice at home.

2 THEORETICAL FRAMEWORK: BILINGUAL SCAFFOLDING

Scaffolding refers to temporary, adaptive support that helps learners participate in a task they may not yet be able to complete independently. Support increases only as far as the child needs it, then the exchange returns to English.

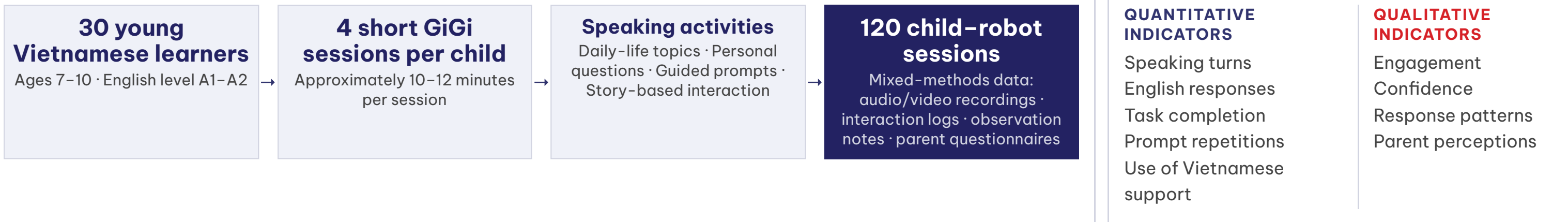
S0 English prompt GiGi asks in English.	S1 English repetition GiGi repeats the prompt clearly.	S2 Simplified English Shorter or more familiar language.	S3 Contextual cue / sentence frame A visual cue, keyword or sentence starter.	S4 Brief Vietnamese support Meaning clarified in Vietnamese when needed.	Return to English The child attempts the response in English.
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GIGI INTERACTION EXAMPLE

S0	"What did you eat for breakfast?"
	child pauses ...
S2	"What did you eat this morning?"
S4	Sáng nay cậu ăn gì? You can say: "I ate ..."
	"I ate bread."

The goal is not to replace English with Vietnamese, but to give the minimum support needed for the child to re-enter the English interaction (Schodde et al., 2019).

3 HOW THE STUDY WORKED



5 KEY FINDINGS

SPEAKING PARTICIPATION 7.1 → 9.0 Average English speaking turns were higher in Session 4 than in Session 1.	ENGLISH RESPONSE RATE 64% → 75% A greater proportion of GiGi's prompts received an English or partly English response in the final session.	BILINGUAL SUPPORT 17% → 12% The proportion of prompts requiring brief Vietnamese support was lower in the final session.	PARENT PERCEPTIONS 80% (24/30) felt GiGi provided useful additional opportunities for their child to speak English. 43% (13/30) reported occasional speech-recognition difficulties.
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6 HOW DID BILINGUAL SCAFFOLDING HELP?

When children did not respond to the initial English prompt:

31%	responded after repetition
27%	responded after simplified English
24%	responded after brief Vietnamese support
18%	still gave no verbal English response

Most support could remain in English before Vietnamese was needed.

7 WHAT DID WE OBSERVE?

- Low-pressure interaction**
Children appeared increasingly willing to attempt short English responses when interaction remained supportive and conversational.
- Vietnamese as a bridge**
Vietnamese support appeared most useful when children did not understand the task, rather than as the default language of interaction.
- Short and varied activities worked better**
Children generally remained more engaged during brief and varied speaking tasks, while longer or repetitive exchanges sometimes reduced attention.

8 IMPLICATIONS

For young learners	GiGi may provide a low-pressure space for repeated, meaningful English speaking practice in familiar contexts.
For bilingual interaction design	Vietnamese can serve as a temporary scaffold when needed to sustain interaction and help children re-enter English.
For AI companion design	Effective systems may need to decide when, how much, and what type of support to provide rather than simply switching languages.

The central design question may not be whether a robot should use Vietnamese, but when Vietnamese support is helpful and how quickly the interaction returns to English.

REFERENCES

- Schodde, T., van der Putten, S., & Neerincx, M. (2019). Social robots in second language education: A review. *Proceedings of the 2019 ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, 439–440.
- Belpaeme, T., Kennedy, J., Ramachandran, A., Scassellati, B., Tanaka, F., & Vanderborght, B. (2018). Social robots as second language tutors. *IEEE Transactions on Learning Technologies*, 11(3), 268–282.
- Vogt, P., Bergmann, K., André, E., Moyseke, S., Zibin, T., & Kopp, S. (2019). Large-scale second language tutoring with robots. *International Journal of Social Robotics*, 11, 300–325.
- Kory Westlund, J. M., & Breazeal, C. (2019). Persuasive effects of peer-like robots to support rapport, learning and language acquisition. *International Journal of Social Robotics*, 11, 551–567.
- Konijn, E. A., Hoon, J. F., & Neerincx, M. A. (2022). Social robots for second language learning: A review of studies with primary school children. *Educational Research Review*, 37, 100452.
- Iio, K., Shibata, T., & Watanabe, T. (2024). Robot-assisted language learning and its effects on speaking ability: A systematic review. *Computer Assisted Language Learning*, 37(3), 523–545.

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