

# Using chatbots as AI conversational partners in Language Learning.

## SUPPLEMENTARY DATA

### ANNEX A – PRE SURVEY

Socio-demographic data and technological affinity

1. Age: 20-29 / 30 -39 / 40+
2. Gender: male / female / other
3. How many electronic devices do you have (you may tick several options): ☐ PC or Mac, ☐ laptop, ☐ tablet, ☐ smartphone ☐ chatbot
4. How concerned are you about privacy when using electronic devices? (for example, access to your information by third-parties, use of cam, etc) 5-point scale: 1= not concerned at all to 5= extremely concerned

Previous knowledge about chatbots

5. Are you familiar with the following chatbots? Y/N ☐ Alexa (Amazon), ☐ Cortana (Microsoft), ☐ Siri (Apple), ☐ Bixby (Samsung), ☐ Watson (IBM), ☐ Google Assistant
6. How often do you use the following chatbots (5-point scale: never, rarely, sometimes, quite, very often): ☐ Alexa (Amazon), ☐ Cortana (Microsoft), ☐ Siri (Apple), ☐ Bixby (Samsung), ☐ Watson (IBM), ☐ Google Assistant
7. From what you know about chatbots, rate their usefulness in the following areas on 5-point scale (1 = not useful at all to 5 = very useful): ☐ Commerce (on-line shopping, etc), ☐ Education (quizbots, academics, lessons, etc), ☐ Psychological issues (mental health, etc), ☐ Social Networking (Facebook, Whatsapp, Instagram, etc), ☐ General information (leisure, movies, TV series, etc).
8. Please, rate your level of satisfaction with chatbots in general on a 5-point scale: 1= not satisfied at all to 5 = completely satisfied

### ANNEX B – POST SURVEY

#### The Chatbot-Human Interaction Satisfaction Model (CHISM)

Rate your level of satisfaction on a 5-point scale (1 = not satisfied at all to 5 = completely satisfied) for each of the following items as explained in class.

Dimension	Item	Choices
		1 2 3 4 5
<b>Linguistic</b>	1. Semantic coherent behavior (coherence, off topics)	00000
	2. Sentence structure and complexity (sentence length, diversity)	00000
	3. R&S technologies (quality of voice recognition and synthesis)	00000
	4. Lexical richness (vocabulary range, diversity of topics, different registers, colloquial expressions, contracted and abbreviated forms)	00000
	5. Grammatical accuracy (correct usage of sentences, syntax)	00000
	6. Error detection and correction (chatbot corrects errors, errors do not interrupt conversation)	00000
	7. Chatbot response interval (human-chatbot sentence interval, chatbot proactiveness in conversation)	00000
	8. Natural conversational interaction (non predictable, use of discourse markers, contextual use of language)	00000
	9. Non-verbal language (use of emojis and memes)	00000
<b>Technological</b>	10. Multimedia content (linked to apps and social networks, videos and video calls, AR tech, games)	00000
	11. Design (avatar, friendliness, static or animated, customizing options)	00000
	12. Interface (multiplatform, data storage, adaptivity, ease of use)	00000
<b>Experiential</b>	13. Engagement (active participation in the conversation)	00000
	14. Enjoyment (feeling of pleasure while conversing)	00000

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15. Further interest (willingness to interact more with the chatbot in the future) (00000)

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### Technology Acceptance Model - TAM2

Dimensions: Perceived Ease of Use (PEU), Perceived Usefulness (PU), Usability (US), Perceived Behavior Control (PBC), Attitude (ATT), Behavioral Intention (BI), Self-efficacy (SE), Personal Innovativeness (PI).

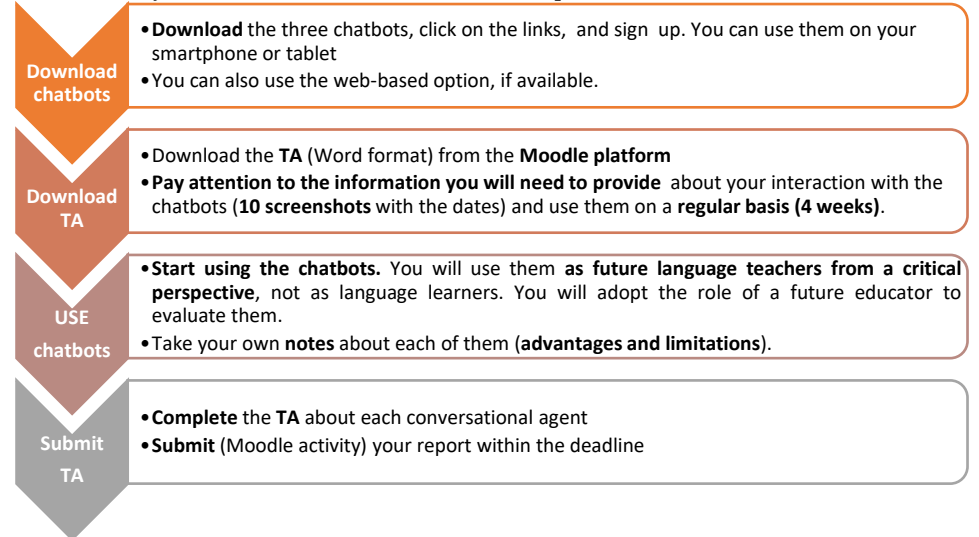
Rate your perception about the integration of chatbots in language learning on a 5-point scale (1=completely disagree to 5 = completely agree)

Dimensions and items	Choices
	1 2 3 4 5
1. (PEU) I find chatbots easy to use	(00000)
2. (PEU) Learning how to use chatbots is easy for me	(00000)
3. (PEU) It is easy to become skillful at using chatbots in language learning	(00000)
4. (PEU) I find chatbots in language learning to be flexible to interact with	(00000)
5. (PEU) The interaction with chatbots in language learning is clear and understandable	(00000)
6. (PU) Using chatbots in language learning would increase the students' learning performance	(00000)
7. (PU) Using chatbots in language learning would increase academic productivity	(00000)
8. (PU) Using chatbots would make language learning easier	(00000)
9. (PU) Using chatbots in language learning allows the learners to study outside of the classroom	(00000)
10. (PU) Using chatbots in language learning is useful for context-based interactions as in real life	(00000)
11. (PU) Chatbots enable students to learn more quickly in language learning	(00000)
12. (PU) Chatbots make it easier to innovate in language learning	(00000)
13. (PU) The advantages of chatbots in language learning outweigh the disadvantages	(00000)
14. (US) I believe that using chatbots will increase the quality of language learning	(00000)
15. (PBC) I am completely satisfied in using chatbots for language learning	(00000)
16. (PBC) I am very confident in using chatbots in language learning	(00000)
17. (AT) Using chatbots in language learning is a good idea	(00000)
18. (AT) I am positive towards using chatbots in language learning	(00000)
19. (AT) Using chatbots in language learning is fun	(00000)
20. (BI) I intend to use chatbots in language learning frequently	(00000)
21. (BI) I intend to learn more about using chatbots in language learning	(00000)
22. (SE) I feel confident in using chatbots in language learning	(00000)
23. (SE) I have the necessary skills for using chatbots in language learning	(00000)
24. (PI) I like to experiment with new technologies in language learning	(00000)
25. (PI) Among my peers, I am usually the first to explore new technologies	(00000)

## ANNEX C (TEMPLATE ANALYSIS - TA)

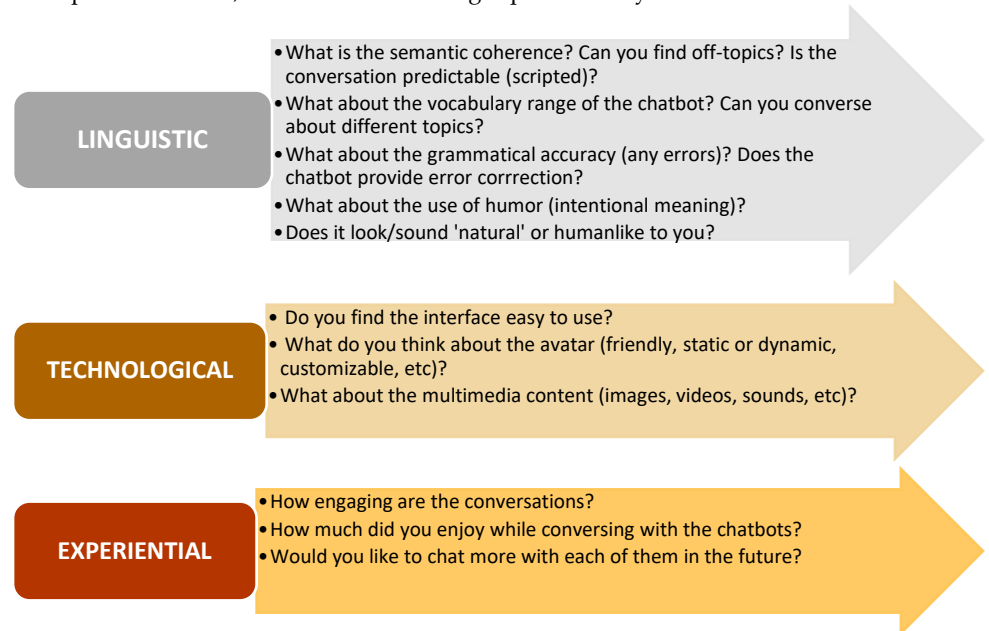
### INSTRUCTIONS

Read carefully the instructions and follow these steps:



### AI CONVERSATIONAL PARTNERS

As explained in class, focus on the following aspects while you interact with the chatbots:



### TEMPLATE ANALYSIS

Provide your comments and illustrate them with examples:

Conversational agent	Advantages	Limitations
KUKI <a href="https://kuki.ai">kuki.ai</a>	-	-
	-	-
	-	-
REPLIKA <a href="https://replika.ai">replika.ai</a>	-	-
	-	-
	-	-
WYSA <a href="https://wysa.io">wysa.io</a>	-	-
	-	-
	-	-

**Remember to include 10 screenshots of your interaction (min. 3 per chatbot)**