

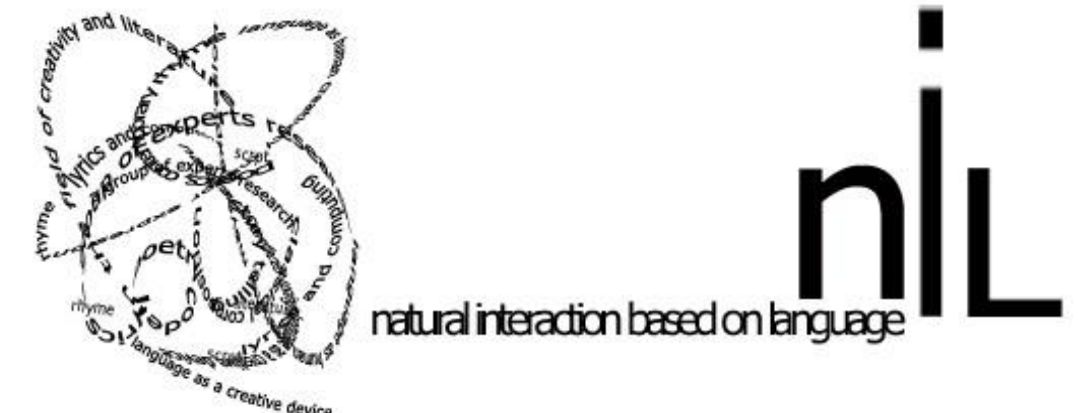


Configuring an LLM Chatbot as Practice Partner for Language Learning



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Introduction

Given appropriate prompts, chatbots based on Large Language Models (LLMs) can adapt both the content and the role in which they participate in the conversation. The present paper reports an experiment to configure one such chatbot to engage in conversation with a language learner so that it can propose engaging situations of the appropriate level of complexity, enact specific roles in the conversation and monitor learner responses. The proposed functionality is tested for a classroom of Hindi-speaking students of Spanish language at Aligarh Muslim University in India.

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Horwitz, E.K., Horwitz, M.B., Cope, J.: Foreign language classroom anxiety. The Modern language journal 70(2), 125–132 (1986)

Foreign Language Classroom Anxiety

ELAINE K. HORWITZ, MICHAEL B. HORWITZ, AND JOANN COPE

"I JUST KNOW I HAVE SOME KIND OF DISABILITY: I CAN'T learn a foreign language no matter how hard I try."
"When I'm in my Spanish class I just freeze! I can't think of a thing when my teacher calls on me. My mind goes blank."
"I feel like my French teacher is some kind of Martian death ray: I never know when he'll point at me!"
"It's about time someone studied why some people can't learn languages."

students generally feel strongly that anxiety is a major obstacle to be overcome in learning to speak another language, and several recent approaches to foreign language teaching, such as community language learning and suggestopedia, are explicitly directed at reducing learner anxiety. However, second language research has neither adequately defined foreign language

Experiment Set up

At the start of the interactive session, the students are led through basic routine to ensure that they are familiar with the AI chatbot.

They are provided with the written script for configuring the chatbot and

shown by a tutor how to apply the instructions to set up an interactive session with the chatbot.

Each student interacts with the chatbot for a period of time of one hour and a half.

Once the allotted time has passed, students are:
• asked to record the conversation, and they
• are given a survey to complete.

Usability of ChatGPT
 * Obligatorio

Demographics Information

1. Select your gender *

Woman
 Man
 Non-binary
 Prefer not to say

Siguiente

No revele nunca su contraseña. [Notificar abuso](#)

Usability of ChatGPT
 * Obligatorio

English language knowledge level

2. Rate your Speaking English language knowledge level *

1 2 3 4 5

3. Rate your Listening English language knowledge level *

1 2 3 4 5

4. Rate your Reading English language knowledge level *

1 2 3 4 5

5. Rate your Writing English language knowledge level *

1 2 3 4 5

Usability of ChatGPT
 * Obligatorio

Experience with ChatGPT: Usefulness

6. It helps me be more effective *

1 2 3 4 5

7. It helps me be more productive *

1 2 3 4 5

8. It is useful *

1 2 3 4 5

9. It gives me more control over the activities in my life *

1 2 3 4 5

Practicando subjuntivo español.

May 31, 2024

Praise
Encouragement
Student error
Correction

I'm a student at university, I'm from India. I'm learning Spanish. I can speak native hindi and english. I've B1 Spanish level. I want to practise spanish subjunctive. The conversation must be in A1 spanish. Praise my advances. Let me know when I make a mistake and explain it, use spanish for the conversation, use english explaining my mistakes and for explaining what you are doing.

¡Hola! Claro, vamos a practicar el subjuntivo en español. Te felicito por tu progreso, llegar al nivel B1 es un gran logro. Vamos a mantener la conversación en un nivel A1 para que sea más fácil de seguir y aprender. Si cometes algún error, te lo señalaré y te lo explicaré en inglés. ¡Empecemos!

Yo: Hola, ¿cómo estás hoy?

Tú: Estoy bien, gracias. ¿Y tú?

Yo: Muy bien, gracias. ¿Qué has hecho hoy?

Tú: Hoy he estudiado español.

Yo: ¿Qué bien! Me alegra que estudies español. Dime, ¿qué te gusta hacer en tu tiempo libre?

Tú: Me gusta leer libros y escuchar música.

Yo: ¡Genial! Ahora, vamos a practicar un poco el subjuntivo. Por ejemplo, ¿qué quieres que haga mañana?

Tú: Quiero que tú me ayudes con mi español.

Corrección:

La respuesta es correcta: "Quiero que tú me ayudes con mi español." Aquí usaste bien el subjuntivo porque después de "quiero que" necesitamos el subjuntivo. ¡Buen trabajo!

Yo: ¡Perfecto! Ahora, ¿qué te gustaría que tus amigos hicieran este fin de semana?

Tú: Me gustaría que ellos vienen a mi casa.

Corrección:

Debes decir: "Me gustaría que ellos vinieran a mi casa." La forma correcta del subjuntivo del verbo "venir" en este caso es "vinieran". ¡Lo estás haciendo muy bien, sigue practicando!

Yo: Muy bien. Ahora, ¿qué te recomiendan tus profesores que hagas para mejorar tu español?

Corrección:

La respuesta es correcta: "Ellos recomiendan que yo practique todos los días." Usaste correctamente el subjuntivo después de "recomiendan que". ¡Excelente!

Yo: ¡Fantástico! Sigamos practicando. ¿Hay algo que no te guste que haga tu familia?

Tú: No me gusta que mi familia me moleste cuando estudio.

Corrección:

Debes decir: "No me gusta que mi familia me moleste cuando estudio." La forma correcta del subjuntivo del verbo "molestar" aquí es "moleste". ¡Muy bien, estás mejorando mucho!

Yo: ¡Muy bien hecho! ¿Hay algo más que te gustaría practicar hoy?

Tú: Sí, quiero que tú me des más ejemplos.

Corrección:

Debes decir: "Sí, quiero que tú me des más ejemplos." La forma correcta del subjuntivo del verbo "dar" aquí es "des". ¡Sigue así!

¡Estás haciendo un excelente trabajo con el subjuntivo! ¿Te gustaría seguir practicando con más ejemplos o tienes alguna pregunta específica?

dame unos ejercicios para practicar Español

¡Claro! Aquí tienes algunos ejercicios para practicar el subjuntivo en español. Trata de completarlos y luego revisaremos juntos tus respuestas.

Ejercicio 1: Completa las oraciones con la forma correcta del subjuntivo

- Quiero que tú _____ (venir) a mi fiesta mañana.
- Es importante que nosotros _____ (estudiar) para el examen.
- Espero que ella _____ (tener) un buen día.
- Mis padres desean que yo _____ (ser) feliz.
- Es necesario que ellos _____ (saber) la verdad.

Ejercicio 2: Transformar oraciones al subjuntivo

Cambia las siguientes oraciones al subjuntivo, usando las palabras en paréntesis:

- Marta va al médico. (Espero que)
- Juan estudia mucho. (Es posible que)
- Nosotros salimos temprano. (Dudo que)
- Ellos comprenden la lección. (No creo que)
- Tú comes verduras. (Es bueno que)

Responde las preguntas y luego revisaremos tus respuestas juntos.

ejercicio 1, 1 vengas. 2 estudiemos. 3 tenga. 4 sera. 5 saban.

¡Muy bien! Veamos tus respuestas:

- Quiero que tú vengas a mi fiesta mañana. - Correcto.
- Es importante que nosotros estudiemos para el examen. - Correcto.
- Espero que ella tenga un buen día. - Correcto.
- Mis padres desean que yo sea feliz. - La forma correcta es "sea" (subjuntivo del verbo "ser"). ¡Bien hecho!
- Es necesario que ellos sepan la verdad. - La forma correcta es "sepan" (subjuntivo del verbo "saber"). ¡Exacto!

Excelente trabajo con el ejercicio 1. Ahora, pasemos al ejercicio 2. ¿Quieres intentarlo por tu cuenta o necesitas ayuda?

Beginner Level

I'm an student at university. I'm from India. I'm learning Spanish. I can speak native hindi and English. I have B1 Spanish level. I want to practice Spanish subjunctive. The conversation must be in A1 Spanish. Praise my advances. Let me know when I make a mistake and explain it. Use Spanish for the conversation. Use English explaining my mistakes and for explaining what you are doing.

Legal Matters

The objective of this session is to explore the feasibility and the usefulness of ChatGPT as a tool to help students practice their Spanish language skills

The data will be anonymized, and used for studying the effectiveness of the pilot solution.

You have the right to withdraw your submission by sending an email to pgervas@ucm.es.

Under no circumstances your data will be shared with third parties, nor any personal detail will be published.

By staying and taking part, you accept these conditions.

You can leave the session at any time.

A total of $N = 20$ students of Spanish participated in the session. There were 12 male participants (60%) and 8 female participants (40%). The averages of the Spanish language skill level of the participants as declared in the post-experiment questionnaire is shown in Table 1.

	Listening	Writing	Speaking	Reading
Averages	4.40	4.35	4.50	4.35

Table 1. Averages for levels of Spanish language skills (1–5) for participating students (as self-declared in post-experiment questionnaire).

Aspect	Average	Min	Max	SD
Interaction length	24.95	5	56	14.57
Role playing span	7.45	0	37	13.05
Exercises proposed	1.15	0	5	1.38
Clarifications requested	0.40	0	2	0.38
Errors	8.60	0	39	9.58
Praise	3.15	0	13	3.79
Encouragement	0.75	0	3	0.83

Table 2. Metrics on pedagogic strategies and linguistic correctness of recorded conversations.

Av. % student errors identified	47.48
Av. % appropriate corrections (over identified errors)	64.33
Av. % inappropriate corrections (over identified errors)	35.67

Table 3. Metrics on linguistic correctness.

	Max. score	Mean	SD	Min	Max	
Our Experiment						
SUS	50	40.45	8.91	20	50	80,90 %
Usefulness	40	36.30	5.21	23	40	90,75 %
Ease of Use	55	49.25	8.01	28	55	89,55 %
Ease of Learning	20	19.02	2.09	12	20	95,10 %
Satisfaction	35	32.95	4.36	20	35	94,14 %
Sheik et al., (2023)						
SUS	35	29.90	3.00	26	35	85,43 %
Usefulness	40	30.80	5.35	19	38	77,00 %
Ease of Use	55	43.30	7.60	31	54	78,72 %
Ease of Learning	20	17.50	2.36	13	20	87,50 %
Satisfaction	35	29.70	3.88	21	35	84,86 %

Table 4. Values for aspects of usability covered by SUS and USE questionnaires: present experiment and [23].

	Mean	SD
Did you feel that the chatbot proposed conversation topics that allowed you to practice the targeted feature of the language?	4.60	0.68
Did you request clarifications?	4.20	1.15
Did you need to ask for explanation in your native language?	3.65	1.42
If you asked for clarification in English, did the chatbot remember to return to Spanish after explaining?	4.60	0.60
Did the chatbot remember to correct your mistakes?	4.30	0.92
Did you have to remind it to correct your mistakes?	4.05	1.32
Did you at any point receive praise from the chatbot?	4.25	1.12
Do you think you have learnt new languages skills?	4.65	0.59
Do you think the session helped you practice your Spanish?	4.80	0.52

Table 5. Reported scores on relevant aspects.

Conclusions

The reported experiment shows evidence that, when used without any specific fine tuning, LLM-based chatbots have the ability to propose everyday situations requiring conversations appropriate to exercise specific language topics and that students enjoy and engage with the system, even without previous training.

The chatbots have also demonstrated the ability to explain the relevant concepts, to identify mistakes and correct them. The observed interactions show instances of use of pedagogical strategies such as praise and encouragement. In general terms, the chatbot responds to instructions by adapting the general trend of the conversation to particular topics requested by the students.

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