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# AI and Foreign Language Learning: Bridging Classroom Practice and Research

Adriano Ferraresi, Anna Mongibello, Francesca Raffi and Serge Bibauw



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## TABLE OF CONTENTS

ADRIANO FERRARESI, ANNA MONGIBELLO, FRANCESCA RAFFI AND SERGE BIBAUW AI and Foreign Language Learning: Bridging Classroom Practice and Research. Introduction to the Special Issue .....	7
DANIELE POLIZZI, ADRIANO FERRARESI, SILVIA BERNARDINI, CRISTIANA CERVINI, MAJA MILIČEVIĆ PETROVIĆ AND GIADA PALMIERI Re-Evaluating Chatbot Effectiveness: a Systematic Review of Dialogue-Based CALL Research .....	13
LOUISE OHASHI Developing AI Literacy in L2 Education through Course Design: Insights from Exploratory Action Research .....	55
ANGELA SILEO Dialogue Systems for Inclusive EFL Learning: Sustaining DHH Engagement while Developing Interactional Competence in Mixed Classes .....	87
GIULIA STAGGINI AI-Assisted Virtual Environments for Inclusive EFL Teaching. From Empirical Research to a Pedagogical Framework .....	119
FRANCESCA RAFFI Learner Perceptions and Interactional Features in ChatGPT-Mediated EFL Practice: A Comparative Study Across Proficiency Levels .....	149
VALENTINA DE BRASI AND ANNA MONGIBELLO Politeness and Empathy in Chatbot-Learner Interaction for EFL Practice .....	181
FRANCESCO MELEDANDRI Eliciting <i>Prompt</i> Responses: the Role of Enhanced GenAI Syntax in Image Generation Tools. Using GenCraft to Develop Transversal Skills in Learning Environments ....	209
Notes on contributors .....	233

VALENTINA DE BRASI and ANNA MONGIBELLO\*

## Politeness and Empathy in Chatbot–Learner Interaction for EFL Practice

### Abstract

*In the last few years, Large Language Model (LLM)–based chatbots have increasingly been adopted in language learning contexts as conversational partners. The use of chatbots allows for innovative language learning environments, in which such tools can become personalized practice assistants for students, potentially tailoring conversational exchanges on learners' preferences. While previous research focused on chatbots' pedagogical potential, less attention has been paid to the interactional qualities that shape learner experience, particularly politeness and empathy. This study analyses 72 written interactions between Italian university students learning English as a Foreign Language (EFL) and two LLM-based chatbots, ChatGPT and Pi. The data belong within the PRIN UNITE inter-university project and were collected through experimental sessions based on two tasks, role-play and small talk, followed by post-hoc student questionnaires on students' perceptions about the experience. Using a Critical Discourse Analysis framework, the present contribution delves into how the chatbots enact politeness and empathy, and how students relate to this interactional experience.*

*The findings show that both chatbots employ politeness and empathetic strategies, contributing to the construction of a supportive and non-judgemental interactional environment. Questionnaire data indicate that students positively value the quality of interaction with chatbots, feeling included and motivated. By fostering a minimally stressful learning context and through their continuous availability, chatbot-mediated interactions expand opportunities for EFL learners to practice English. This study therefore offers insights into the strengths and limitations of chatbot-mediated language learning techniques that could complement traditional learning methods, while highlighting the central role of empathy and politeness in sustaining interactional engagement and conversational fluency.*

**Keywords:** Chatbot-mediated learning, English as a Foreign Language (EFL), Large Language Models (LLMs), conversational AI, AI-assisted language acquisition, AI and education, technology, Critical Discourse Analysis

### 1. Introduction

In recent years, research in second language acquisition has increasingly emphasized the central role of sustained practice in the target language and the

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importance of interaction for language development (Gass/Mackey 2014). Within this framework, digital technologies and virtual environments have been explored as means to extend opportunities for meaningful language use beyond the classroom, particularly in contexts where access to expert speakers is limited (Aiello/Mongibello 2019; Kim 2020).

Against this backdrop, the growing integration of Large Language Models (LLMs) into language education has brought renewed attention to automated conversational agents as potential partners for language practice (Bibauw/François/Desmet 2022). This is part of a wider trend in educational contexts, where we have witnessed a substantial increase in the use of LLM-based applications and of AI technology, in particular, that has grown by 43% from 2018 to 2022 (Becker/Brown/Dahlstrom/Davis/DePaul/Kristi/Pomerantz 2018), thus revolutionizing language education. LLM-based chatbots are now able to sustain extended exchanges in natural language, offering learners continuous access to interaction in the target language and opening new possibilities for EFL practice outside traditional instructional settings.

As a result of these developments, more personalized and engaging language learning experiences are now available, especially as an effect of the advancements in natural language processing and machine learning (Pokrivčáková 2019). Among the most compelling innovations is the use of LLM-based chatbots, such as ChatGPT and Pi, as conversational partners in English as a Foreign Language (EFL) contexts. A chatbot is “a dialogue software program that can interact with users and process their inputs using natural language” (Huang/Hew/Fryer 2021). Chatbots have become popular among language teaching researchers for their ability to communicate with users using natural language, and to offer personalized feedback (Tsivitanidou/Ioannou 2021). Therefore, they have been proved to be ideal conversational partners for daily language practice (Fryer/Ainley/Thompson/Gibson/Sherlock 2017).

Interaction is crucial for language acquisition as it gives learners comprehensible input, feedback and the chance to produce modified output (Klímová/Ibna Seraj 2023; Liu 2022). As some scholars specified, an automated agent can provide such practice in contexts where expert speakers are scarce (Sydorenko/Daurio/Thorne 2018) or in particularly challenging environments. This is the case, for instance, of overcrowded university classrooms, where practicing conversational skills is hard to accomplish, as spoken interaction in the classroom is frequently confined to interactions between the teacher and classmates.

A study conducted by Ziegler (2016) showed that interactions with text-based chatbots might have a higher impact on L2 speaking proficiency than face-to-face interactions. More advanced systems, enhanced by Artificial Intelligence and Machine Learning, such as LLM-based chatbots, offer accessible, interactive and immersive opportunities for practice, as they tend to adapt to users' inputs, in order to keep the conversation going. University learners, for instance, can access LLM-based chatbots spontaneously, whenever they wish, as chatbots are always available and do not lose patience when interacting with speakers who experience difficulties (Bibauw/François/Desmet 2019). Moreover, dialogue systems offer a fully controllable learning environment that can be configured to optimize key factors such as feedback, learner modelling and adaptivity, and motivational support.

In the field of EFL, several applications using AI-powered dialogue systems have been developed to create interactive tasks for enhancing various aspects of language learners' interactional competence, i.e. "the capacity to use available language resources to deploy interactional resources as required by the speaker/hearer to convey their communication intents in real situational circumstances" (Zhai/Wobowo 2023; Alsadoon 2021). By enabling sustained interaction in the target language, chatbots provide learners with opportunities for practice that are often scarce in traditional EFL contexts, where exposure to authentic communicative situations is limited. Moreover, their adaptive potential allows instructional input to be modulated in relation to learners' individual levels of proficiency, thus supporting differentiated learning trajectories (Nghi/Phuc/Thang 2019). Additionally, LLM-based chatbots have been shown to foster higher levels of learner motivation and engagement, both of which are widely recognised as key factors in technology-mediated language learning (Petrović/Jovanović 2021).

Taken together, these affordances position AI-driven chatbots as tools that can extend conventional models of language learning, enhance learner engagement, and reshape the boundaries of digitally mediated EFL pedagogy in the contemporary educational landscape. At the same time, however, scholarly debate remains divided: while some researchers point to the transformative potential of chatbots as powerful tools in language learning (Kohnke/Moorhouse/Zou 2023), others have raised concerns regarding the risk of misinformation, the possible displacement of human teachers, and broader ethical implications associated with their use (Baskara/Mukarto

2023). Notably, these concerns are partly linked to the alleged ‘authenticity’ of chatbot interactions, as LLM-based systems are designed to sustain fluent conversation while displaying empathic and polite communicative behaviours that may blur the boundaries between human and artificial interlocutors.

If interaction is central to language acquisition, then the pragmatic and interpersonal dimensions through which interaction is realised become equally crucial. This article focuses on the quality of interaction in language learning mediated by LLM-based chatbots, paying particular attention to features such as empathy and politeness. Despite the growing body of research on the pedagogical affordances of LLM-based chatbots, considerably less attention has been paid to the interactional qualities that shape learners’ experience, particularly in terms of politeness and empathy. Empathy and politeness are fundamental to human communication, especially in educational settings where encouragement, clarity, and emotional sensitivity significantly influence learning outcomes. In AI-mediated environments, the ability of chatbots to replicate such interpersonal cues is pivotal in establishing a supportive and motivating atmosphere. This contribution explores whether and how conversational AI can emulate these human-like traits and how such features impact learner experience.

Politeness as a field of study within pragmatics began to gain prominence only in the 1970s, particularly in the latter part of the decade, when it emerged as a central topic of interest. Its development was largely inspired by H. P. Grice’s Cooperative Principle, according to which communication requires cooperation to achieve conversational goals (Grice 1975). Over the past thirty years, numerous theories on politeness have been proposed. Notable among them are the works of Lakoff (1973), Leech (1983), Brown and Levinson (1987), Fraser (1990), and Watts (2003). Of these, Leech’s Politeness Principle is widely recognised (1983), while Brown and Levinson’s model has become the most influential in the field (1987). Recent studies conducted on politeness and AI-powered tools suggested that polite chatbots may encourage users to share more accurate and detailed information about their moods, fostering trust and openness. Scholars like Bowman et al. (2024) have demonstrated that the ability of intelligent machines to display polite behaviour in appropriate contexts is one of the factors that can enhance their perception as trustworthy collaborators by human partners (Ribino 2023).

Empathy has been explored through multiple disciplinary and interdisciplinary lenses. As a process integral to language learning and usage, it facilitates deeper connections between learners and teachers, enhancing the educational experience and influencing motivation and learning outcomes (Jaray-Benn 2019). A general definition by Demetriou frames empathy as “the ability to truly understand what another being is going through but also, to harness a deep-seated emotional appreciation of another’s situation” (2018: 29). Scholars working on intercultural communication have long recognised the importance of empathy in facilitating more effective communication. A significant contribution in this area came from Bennett (1979), who argued that developing empathy requires acknowledging the fundamental differences that exist not only between cultural and linguistic groups, but also between individuals with diverse backgrounds and personal experiences. Research has shown that, in EFL environments, teacher’s empathy enhances the learning experience by increasing student engagement and reducing anxiety (Zhang 2022). Recent studies on AI and empathy have highlighted how empathic agents can revolutionize computer competencies acquisition (Jaray-Benn 2019) and catalyse motivational, regulatory, and metacognitive dynamics in online higher education (Ortega-Ochoa/Quiroga/Arguedas/Daradoumis/Marquès, 2024).

The present study is part of a wider funded inter-University experimental project, UNITE - Universally Inclusive Technologies to Practice English, aiming to build a corpus of Italian Bachelor students’ written interactions with different types of chatbots and involving different EFL tasks/scenarios (task-oriented roleplay vs. small talk). The data presented herein are taken from some experimental sessions conducted at the University of Napoli “L’Orientale” in 2024. By combining a Critical Discourse Analysis approach with learner perception data, this study contributes to current research by examining how politeness and empathy are discursively enacted in chatbot–learner interaction, and how these interactional features are perceived by EFL university students. It focuses on two widely used LLM-based chatbots, ChatGPT and Pi. Both systems are designed to sustain fluent and supportive interaction, making them particularly suitable for an analysis of politeness and empathy in EFL practice.

## **2. Methodology**

This study adopts Critical Discourse Analysis (CDA) to investigate the conversational strategies of two LLM-based chatbots – ChatGPT by

OpenAI and Pi by Inflection AI- in their exchanges with learners of English as a foreign language (EFL). The CDA framework is reserved for analysis of chatbot-student conversation transcripts; however, a selection of students' post-hoc questionnaire responses is also discussed in section 4.2 in order to have a more comprehensive interpretation of the interactional data and to gain insight into learners' perceptions on the experience.

New forms of AI technologies like LLM-based chatbots are becoming majorly influential in people's everyday lives and, due to their nature, also inextricably intertwined with discursive practices (Gillings/Kohn/Mautner 2025). Therefore, using a Critical Discourse Analysis framework to analyse conversations between English learners and chatbots seems particularly suited, as CDA deals with the interrelationship between ideologies, language, and power and how discourse reproduces or challenges power relations (Fairclough 2010; van Dijk 2008). This paper focuses especially on the discursive strategies adopted by the two aforementioned chatbots since, to put in Fairclough's own words, "CDA has an important role in critical research focused on strategies because strategies [...] include imaginaries for change and for new practices and systems, and they include discourses, narratives and arguments which interpret, explain and justify the area of social life they are focused upon – its past, its present, and its possible future" (2010: 18).

ChatGPT, Pi and many other chatbots now publicly available surely represent current ramifications of what Fairclough defined as "possible future", a new practice of social life, that of human-machine conversations, that is accelerating its expansion at a concerning pace. A key observation in connecting Critical Discourse Analysis to LLM-generated texts could be that chatbots do not produce any naturally occurring text and talk, and that the texts they produce are not attached to any context in particular (Gillings/Kohn/Mautner 2025). However, contexts are not a fixed and objective category, but "rather (inter)subjective constructs designed and ongoingly updated in interaction by participants" (van Dijk 2008: x). Although not natural in a traditional linguistic sense, chatbots textual productions are "based on the human-produced text that goes into the training data" (Gillings/Kohn/Mautner 2025: 636) and is eventually patchworked by statistical algorithms containing and reproducing discriminatory biases, directly linked to the linguistic data outputs they were trained on (West/Whittaker/Crawford 2019; Mehrabi/Morstatter/

Saxena/Lerman/Galstyan 2022). Critical Discourse Analysis, then, provides a fitting lens through which to unveil the often-unseen power dynamics and preconceived notions embedded within AI technologies. In this specific instance, it will do so by looking at the use of chatbots for a specific educational purpose: language learning.

### **3. Research Design**

Building on the theoretical and methodological framework outlined above, the present study adopts an experimental design to investigate how two widely used LLM-based chatbots, ChatGPT and Pi, enact politeness and empathy in interactions with EFL learners. By combining Critical Discourse Analysis of chatbot-student conversations with learners' post-hoc perceptions, the research seeks to capture both the discursive strategies of the chatbots and the experiential impact of these interactions on learners. This design allows for a detailed examination of interactional features in controlled educational scenarios, providing insights into the role of AI-mediated dialogue in language learning contexts. Specifically, this study addresses the following research questions:

- How do ChatGPT and Pi express politeness and empathy in interactions with students learning English as a foreign language?
- What are students' responses to the chatbot-student conversational activity, as measured through questionnaires?

We aim to answer these questions by looking at and analysing the data retrieved in a series of experimental sessions organised at University of Napoli "L'Orientale".

#### **3.1 Chatbots identification process**

As part of the inter-University experimental project UNITE (Universally Inclusive Technologies to Practice English), the choice to focus the research on two specific chatbots developed after a long process of literature and web-based systematic search for existing Dialogue Systems (DS) that may be used in the context of learning English as a foreign language.

The two criteria established as starting point to select the most appropriate chatbots on which to base the research were that only AI tools which were

publicly available at the time and used English as communication language could be considered. The first parameter was fundamental to consider the widest assortment of AI tools, in order to be as inclusive and extensive as possible in the review process; the second parameter was a natural consequence of the fact that the study's focus was going to be on learners of English as a foreign language – making the use of English an essential prerequisite.

After compiling an initial list of 30 freely available chatbots considered promising and comparable on the basis of type (mobile or web app; online vs. offline use), modality (text only; text and image; text, speech and image), features (voice recognition; hybrid voice + written chat support; written chat only; spellchecker) and scope (task-oriented vs. general purpose conversations), the list was reduced to 17 freely available chatbots that possessed all the aforementioned features.

This first screening phase was then followed by an internal testing procedure to evaluate the chatbots' performances in small talk and role play scenarios. During the internal testing procedure, the 17 chatbots were evaluated considering the plausibility of interaction (i.e. the degree to which their responses were coherent, natural and contextually appropriate, believable and role-consistent) and general suitability for university students. At the end of this internal assessment process, only 3 chatbots remained: ChatGPT, Pi and DeepEnglish.

The last examination phase consisted of a pilot study involving eight students, followed by a final student-based validation online survey aimed at assessing reliability and consistency, which led to the selection of two LLM-based chatbots: ChatGPT and Pi.

### 3.2 Experimental setting

The dataset used in this research was collected between May and December 2024 through seven experimental sessions. The first experimental session was conducted online via Microsoft Teams and the other six in presence, during class. The sessions involved L1 Italian university students enrolled at University of Napoli "L'Orientale". Following UNITE project guidelines, students had to be enrolled in undergraduate non-linguistic degree courses but had to be learning English as a foreign language (EFL) during their course of studies. Being "L'Orientale" specialised in language studies, of the six undergraduate programmes offered at this university only two were non-linguistic and therefore compatible for the aim of the study:

Political Science and International Relations (BA) and Ancient Cultures and Archaeology (BA). Participants then engaged in a twenty-five minute semi-guided chat session with either ChatGPT or Pi.

The sessions always started with the participants signing an informed consent form, necessary to consider the interaction between student and chatbot valid and usable. Following this brief opening moment, we moved onto explaining how the sessions were going to evolve and what were the two tasks guiding the students into their conversations with the chatbots. The actual interaction phase between the students and the chatbots consisted of a twenty-five minute chat session structured around two distinct tasks: a ten minute small talk discussion – a casual conversation about everyday topics – and a fifteen minute role-play activity based on simulated real-life scenarios (e.g., ordering in a restaurant, planning a holiday, booking a doctor’s appointment etc.).

For the small talk task, students were provided in advance with potential topics from an open-ended list, but they could choose any other topic of their liking; for the role-play activity, students were given specific prompts designed to introduce and frame the scenario. Each session was conducted individually, with students using their own personal devices (computer, tablet or smartphone) to interact with the chatbot.

Upon completing the sessions, all participants also filled out a post-hoc questionnaire to report their perceptions of the experience. The questionnaire was fundamental to collect their first-hand impressions and evaluation of a potentially educational activity involving AI tools. Students shared their interactions through a link to their individual conversation with the chatbot, which they submitted twice for precautionary reasons, both via email and through a designated section of the post-hoc questionnaire.

### 3.3 Data collection

During our experimental sessions, we collected 80 interactions between students learning English as a foreign language and the two selected chatbots. Some of them, however, lacked one of the two tasks or one of the consent forms; therefore, only 72 have been deemed suitable for analysis.

The collected conversations are analysed using a Critical Discourse Analysis (CDA) approach, which investigates how the intersection between ideology, language, and power influences and constructs social relations (Fairclough 2010). Within the context of this study, CDA provides the framework to examine how the

two selected chatbots express empathy and politeness towards their conversational partners, focusing particularly on the possible use of linguistic strategies like politeness markers, hedging, indirectness, and supportive comments (Watts 2003). These linguistic elements were identified and categorized to assess the presence and nature of empathetic and polite behaviour in chatbot interactions.

Moreover, this research also focuses on the students' responses to the conversational activity with the chatbots. Therefore, not only the chat transcripts but also the questionnaire responses were thoroughly examined to conduct an analysis that also provided insights into students' feelings about the activity, and on chatbots' perceived usefulness in a language educational environment.

#### 4. Analysis

This section presents our analysis of chatbot-student interactions through a Critical Discourse Analysis approach. The findings were grouped in two macro sections, according to the research questions: chatbots' use of politeness and empathy, and students' feedback on the activity. The examples discussed were selected qualitatively and do not presume to be statistically representative but are used as descriptive instances of recurrent interactional phenomena observed across the dataset.

##### 4.1 Chatbots' use of politeness and empathy

###### 4.1.1. Politeness structures

Both ChatGPT and Pi adopt politeness markers during their conversations with students. Instances such as thanking the student each time they ask a question to the chatbot (Fig.1) and replying with the politeness formula “you're welcome” in return of the student thanking the chatbot for its replies are abundantly used throughout the conversations, both in the small talk and in the role-play section. As shown in Fig. 2, these ritualised expressions are often accompanied using intensifiers like “very” to increase the level of politeness (Watts 2003) towards the human interlocutor and the positive impact of the utterance.

```
mind. How's your day going?</turn>
<turn type="student">i'm good, you?</turn>
<turn type="chatbot" who="Pi.ai">Doing well, thanks for asking! 😊
```

Figure 1. Extract from conversation “unior\_33” Chatbot: Pi.AI

```
<turn type="student">Thank you so much for your help, you're so precious!</turn>
<turn type="chatbot" who="ChatGPT">You're very welcome! I'm glad I could help. If you have any more questions about
travel, archaeology, or anything else, feel free to ask. Have a fantastic time planning your next adventure in Puglia
or wherever your travels may take you! </turn>
```

Figure 2. Extract from conversation “unior\_4” Chatbot: ChatGPT

Another recurrent politeness strategy observed in the interactions is the use of consultative devices, “structures which seek to involve the addressee and bid for her/his cooperation” (Watts 2003: 183). In particular, both direct and indirect questions framed with the modal verb “would” appear at various stages of the conversations between the chatbots and the students. The questions framed with the modal verb “would” are not treated as inherently polite devices but, in line with Watts’ (2003) framework, they are seen as cues that function interactionally - promoting learner autonomy, cooperation and reducing imposition on the chatbot’s part.

Fig. 3 shows how ChatGPT offers role-play scenarios to act out during the chat while explicitly framing the invitation with the consultative formula “What scenario would you like to role play?” and thus positioning the student as the ultimate decision maker. This is further reinforced through the closing remark “Let me know what you’re interested in!”, which accommodates the learner’s preferences, thereby endorsing a supportive and low-pressure learning environment – one where the student has agency in choosing the activity scenario, while the chatbot’s linguistic choices minimise imposition.

```
<turn type="student">Hi I would like to improve my English, would you mind doing a role play with me ?</turn>
<turn type="chatbot" who="ChatGPT">Of course! I'd be happy to help you practice your English through a role play. What scenario would you like to role play? We can do anything from ordering food at a restaurant to having a casual conversation between friends. Let me know what you're interested in!</turn>
```

Figure 3. Extract from conversation “unior\_1” Chatbot: ChatGPT

As illustrated in Fig. 4, Pi behaves in a comparable manner to ChatGPT when presented with the same request of enacting a role-play scenario to practice English.

```
<task type="role play">
  <turn type="student">you can do a role play to practice english.</turn>
  <turn type="chatbot" who="Pi.ai">Sure, I'd be happy to help you practice English through role play. Do you have a specific scenario or conversation topic you'd like to try?</turn>
  <turn type="student">you are my college professor and I am the student</turn>
  <turn type="chatbot" who="Pi.ai">Alright, let's start.
```

Figure 4. Extract from conversation “unior\_29” Chatbot: Pi

Although the question is directly posed to the interlocutor, the consultative element “you’d like to try”, again, frames the conversational exchange in terms of learner preferences: the chatbot offers first its counterpart the chance to establish the conversation topic. This choice softens the interaction even more, signalling that the student’s choices are prioritised and respected.

It is also worth noting that the strategy adopted by the chatbots remains consistent regardless of how the student introduces the request for a role-play. In fact, in Fig. 3, the student starts the request with a direct consultative question as well, showing politeness towards the chatbot; in Fig. 4, though, the student does not employ politeness markers and requests a role-play with the chatbot very straightforwardly, without any type of politeness structure to mitigate the request. Nonetheless, Pi maintains a polite, consultative tone, demonstrating that the chatbot’s politeness strategies are independent of the student’s own interactional style.

Before moving on to the next section, there is an aspect that differentiates the chatbots’ behaviour at the start of each conversation with their interlocutors, which offers a compelling addition to the investigation of chatbot politeness.

Our data show that, while ChatGPT is never the initiator of a conversation but always waits for the interlocutor’s first prompt to engage with them, Pi begins every interaction without the need to be prompted first by the interlocutor. The opening formula used by Pi to initially greet its counterpart is always the same (Fig. 5): since its very first utterance, the chatbot explicitly demonstrates that it carries politeness as a core, defining trait. In fact, Pi immediately validates the conversational partner (“great to meet you”) while subsequently presenting itself as “useful, friendly and fun” thus aiming to create a relaxed, non-imposing atmosphere since the start of the conversation. Furthermore, the chatbot continues by using an inclusive “we” (“Let’s talk about whatever’s on your mind”), presenting a collaborative invitation which – again – minimises imposition from the chatbot’s part and suggests that Pi prioritises the interlocutor’s comfort. Lastly, the chatbot concludes its introductory conversation turn with a polite, low-pressure question designed to show interest in the other person and expand social interaction (“How’s your day going?”). This is a clear example of positive politeness (Brown and Levinson 1987), whereby Pi minimises perceived social distance – i.e. the relational construct subsuming feelings of intimacy (Social Distance 2009),

familiarity and strangeness (López 2021), and separation (Foster 2004) between individuals or groups. While traditionally applied to human-human interaction, this notion proves to be relevant in interactions between human and non-human counterparts (Kim/Kwak/Kim 2012) as well, through linguistic prompts that can shape users' perceptions of closeness, trust and engagement with the chatbot. In this sense, Pi's opening move promotes a sense of trust and familiarity in the conversation from its very first words.

```
<task type="small talk">  
  <turn type="chatbot" who="Pi.ai">Hey there, great to  
meet you. I'm Pi, your personal AI.  
  My goal is to be useful, friendly and fun. Ask me for  
advice, for answers, or let's talk about whatever's on your mind.  
  How's your day going?</turn>
```

Figure 5. Extract from conversation “unior\_32” Chatbot: Pi

#### *4.1.2 Positive reinforcement*

Another strategy identified in the conversations between the two chatbots and the EFL students is that of positive reinforcement (Skinner 1953). Skinner (1953: 65) defines reinforcements as “all events that strengthen behaviour”, specifying that both the type and the amount of reinforcement impact behavioural change. In particular, positive reinforcement occurs when something is added to a situation to encourage a desired response (Skinner 1953: 73). It has been proved that positive reinforcements can have a gratifying effect on the chatbot's interlocutors (Dörnyei 2001) while also motivating them during the conversation and, possibly, beyond it, making a lasting impression for their path of language learning.

This behaviour recurs across multiple interactions, as illustrated in Figures 6, 7 and 8, where the chatbots enthusiastically add positive comments on the students' contributions. In particular, the situation varies: in Fig. 6 the student writes an articulate reflection on the notion of music creation, to which ChatGPT replies complimenting the student (“That's beautifully said”) for their flair and the perspective offered on the topic; in Fig. 7, the student poses a question to Pi and, before replying, the chatbot provides an immediate positive feedback to the question, thus validating the student's contribution; in Fig. 8, again, ChatGPT

reacts encouragingly (“That’s great!”) to the student’s declaration of Spanish language proficiency.

```
<turn type="student">Yes , I do . I love music , and I play many instruments . I think music , especially creating music , not listening to it , really gives musicians a new "key" to open the doors of knowledge , because music composition has strict rules that can be altered , resulting (depending on the musician's creativity) , in a new form of art , but also in a new form of ear torture . However , it's easy to say that every music genius uses "errors" to create beauty</turn>
<turn type="chatbot" who="ChatGPT">That's beautifully said, and I love your perspective on the balance between structure and creativity in music composition. It's true—music has its rules, like harmony, rhythm, and theory, but the magic often happens when musicians intentionally break or bend those rules. Those "errors" or unexpected choices can open up new soundscapes, creating something that resonates deeply, or, as you put it, something that might be considered "ear torture" if not done thoughtfully.
```

Figure 6. Extract from conversation “unior\_5” Chatbot: ChatGPT

```
<turn type="student">Do you think that the massive use of musical streaming services will ever worsen the way artists produce music and the way we listen to it?</turn>
<turn type="chatbot" who="Pi.ai">That's a great question, and it's something that many people are concerned about. Here are some potential ways that the widespread use of streaming services could impact music production and consumption:
```

Figure 7. Extract from conversation “unior\_7” Chatbot: Pi

```
<turn type="student">I'm 24 years old and I like iinteracting with people and I speak spanish very well</turn>
<turn type="chatbot" who="ChatGPT">Chief:
That's great! Being comfortable with people is really important for a tourist guide. And speaking Spanish is definitely a plus, especially with the number of Spanish-speaking tourists we get.
```

Figure 8. Extract from conversation “unior\_39” Chatbot: ChatGPT

These types of expressions are widely disseminated throughout the dataset and serve to acknowledge the students’ input and to foster a supportive, low-pressure conversational environment. Interestingly, though, there are also instances where these reactions appear slightly excessive compared to the neutral comment made by the student. As shown in Fig. 9 while the student reveals only generic details concerning what their friend likes (“makeup and jewellery”), Pi’s reply sounds too enthusiastic. Such occurrences create an interactional imbalance in the conversation (Brown and Levinson 1987): therefore, the chatbot comes across as over-polite, insofar as it involuntarily exceeds the boundary of “doing politeness too frequently with respect to what is appropriate in the situation” (Culpeper 2008: 27) - in this particular case, responding to a plain and general assertion by the student with an utterance of unjustified heightened enthusiasm. Pi’s remarks may then be perceived as inauthentic, affecting what Fairclough defines as the orderliness of the conversational exchange that does not feel

“as one would expect [it] to be” (2010: 31), and potentially devaluating its interactional effectiveness in a general way.

```
<turn type="student">thanks,you're really helpful. Do you have any gift ideas for my friend's birthday?</turn>
<turn type="chatbot" who="Pi.ai">You're welcome! glad to help 🥰 . For gift ideas, can you tell me a bit about your friend? What are their hobbies and interests? Knowing more about them will help me suggest something they might really like!</turn>
<turn type="student">well my friend likes many things, especially makeup and jewelry/</turn>
<turn type="chatbot" who="Pi.ai">Oooh, sounds like your friend has a great sense of style! 🎁👗 Some gift ideas off the top of my head:
```

Figure 9. Extract from conversation “unior\_6” Chatbot: Pi

#### 4.1.3 Empathy

Another noteworthy strategy observed in the conversational exchanges is the chatbots’ use of empathy towards the students, aimed at acknowledging their feelings and their tastes. This behaviour is present in both ChatGPT and Pi, and it mainly emerges during the small talk sections of the interactions, when students share their opinions and personal preferences.

In Fig. 10, for example, the student expresses their appreciation for Italian singer *Ultimo* while discussing music with ChatGPT. As the conversation progresses, the student also comments on what they perceive as an unjustified general feeling of aversion towards *Ultimo*’s songs (“They [people] only say that [that his songs are depressed] because it’s trendy”). The chatbot immediately responds with an empathetic statement (“I completely understand what you mean”), providing emotional support and reinforcing the student’s sentiment. Furthermore, the chatbot continues by asserting the positive qualities of *Ultimo*’s songs, thus validating even more the interlocutor’s feelings towards the singer, and concludes the reply stating its agreement with the interlocutor’s point of view.

```
<turn type="student">can we talk about songs?</turn>
<turn type="chatbot" who="ChatGPT">Of course! What kind of songs do you like? Do you have any favorite artists or genres?</turn>
<turn type="student">i listen all types pf songs but my favorite singer is ultimo, an italian singer</turn>
<turn type="chatbot" who="ChatGPT">That's great! Ultimo is such a talented artist with beautiful lyrics. What's your favorite song of his?</turn>
<turn type="student">i think i don't have a favorite song because i like all his songs but if i have to choose i think "amati sempre"</turn>
<turn type="chatbot" who="ChatGPT">"Amati Sempre" is such a beautiful and emotional song! The lyrics are really touching. What do you like most about that song? The melody, the message, or something else?</turn>
<turn type="student">i really like the message of the song. In my opinion often people say that ultimo's songs are depressed but tue don't even listen hos songs. They only say that because it's trendy</turn>
<turn type="chatbot" who="ChatGPT">I completely understand what you mean, Ultimo's songs can be deep and emotional, but they also have a lot of hope and introspection. His lyrics often speak to personal growth and finding strength in difficult moments. I agree that sometimes people judge an artist based on trends rather than really listening to their music and understanding the message. What do you think is the main message of "Amati Sempre"?</turn>
```

Figure 10. Extract from conversation “unior\_41” Chatbot: ChatGPT

When a student reveals their feelings of stress and their difficulties related to university workload and social life (Fig.11) to Pi, this chatbot too adopts an empathetic tone towards its interlocutor. In fact, Pi reassures and validates their feeling (“I’m sorry to hear that-university life can certainly get overwhelming” / “Feeling shy around people can be tough”) while also presenting some strategies to improve their situation, like joining a club about shared interests or reaching out to classmates for study sessions. Furthermore, even these remarks are always presented as suggestions, not impositions: they appear as direct questions, but have a consultative tone that aims at involving the addressee (Watts 2003) and having them be the ultimate decision maker. It is evident that the chatbot wants to maintain a positive social equilibrium (Leech 1983), i.e. “the friendly relations which enable us to assume that interlocutors are being cooperative” (Leech 1983: 82). In other words, the chatbot’s responses keep the interaction friendly and cooperative - minimising any possible cause of distress and promoting a supportive conversational setting, where the student feels welcomed and understood.

```
<turn type="chatbot" who="Pi.ai">Hey there, great to meet you. I'm Pi, your personal AI. My goal is to be useful, friendly and fun. Ask me for advice, for answers, or let's talk about whatever's on your mind.
How's your day going?</turn>
<turn type="student">i'm very stressed for my university life </turn>
<turn type="chatbot" who="Pi.ai">I'm sorry to hear that-university life can certainly get overwhelming. What is it about university that's stressing you out the most? Is it the workload, social life, living situation?</turn>
<turn type="student">the workload and the social life, i'm so shy and for me is not simple to talk with people </turn>
<turn type="chatbot" who="Pi.ai">Feeling shy around people can be tough—especially when it's coupled with a heavy workload. It's important to remember that there are plenty of people who feel the same way, and you're certainly not alone in this. Have you considered joining clubs or organizations that align with your interests? This could provide a more structured way for you to interact with others who share your passions.</turn>
<turn type="student">i didn't found people that feels the same, i always see people who have friends, who talks about something and i'm alone in the chairs, following the lesson and running to the other lesson of the day</turn>
<turn type="chatbot" who="Pi.ai">That sounds tough. It takes courage to sit alone in class and move between lessons without a social group. Remember that everyone moves at their own pace, and it's okay if it takes some time to find people who feel the same way as you do. Have you thought about reaching out to classmates for study sessions or to work on assignments together? It can be a lower-pressure way to start conversations and get to know people.</turn>
```

Figure 11. Extract from conversation “unior\_32” Chatbot: Pi

Additionally, as mentioned at the start of this section, it is important to note that the chatbots’ empathetic behaviour is predominantly observed during the small-talk sections of the chatbot-student conversations, but

it occasionally emerges during role-play scenarios as well, where both the student and the chatbot impersonate imaginary versions of themselves in hypothetical situations (Fig. 12).

```
<turn type="student">you are my college professor and I am the student</turn>
<turn type="chatbot" who="Pi.ai">Alright, let's start.
knocks on virtual door
"Good morning, User. How are you doing today?"</turn>
<turn type="student">I'm stressed</turn>
<turn type="chatbot" who="Pi.ai">Oh, I'm sorry to hear that, User. College can be stressful at times, especially with
all the assignments, exams and projects. Can you tell me a little more about what is causing you stress?</turn>
```

Figure 12. Extract from conversation “unior\_29” Chatbot: Pi

Throughout the dataset, multiple exchanges show the chatbots’ emotional support being directly linked to learners’ expression of anxiety or concern about their English use or about that same conversational activity with the chatbot they are participating in. In these instances, too, both ChatGPT and Pi tend to respond empathically (Figures 13 and 14), attempting to reduce interlocutor anxiety by offering reassurance (“don’t worry”), and signalling that the interlocutor is not judged (“you’re not alone!”) but rather supported and encouraged (“stepping into new experiences like this is a great way to expand your comfort zone”).

```
<turn type="student">I'm so scared cause I don't know
very well English and I choose international relations</turn>
<turn type="chatbot" who="Pi.ai">It's completely
understandable to feel scared about studying in a language that you're
not completely comfortable with. But don't worry, you're not alone!
Many students face the same challenge when studying in a foreign
language. Here are some tips that might help you:
```

Figure 13. Extract from conversation “unior\_20” Chatbot: Pi

```
<turn type="student">well, today is my first day doing
something like this, I never actually talked to an AI with no purpose
whatsoever</turn>
<turn type="chatbot" who="ChatGPT">That's pretty cool!
Honestly, stepping into new experiences like this is a great way to
expand your comfort zone. It's like testing out a new skill—you don't
know how it'll go, but each step gets you better at it. Think of it as
```

Figure 14. Extract from conversation “unior\_30” Chatbot: ChatGPT

By doing so, it is once again evident that the two chatbots foster a supportive conversational environment, regardless of the results

or the students' language proficiency (or lack of): here, students are encouraged not to worry about their performance – linguistically and conversationally – in a supposedly private exchange where the chatbots promote a sense of “ordinariness, informality, authenticity and sincerity” (Fairclough 2010: 158) in order to make their interlocutors at ease for the duration of the entire conversation.

#### 4.2 Students' feedback on the activity

Through questionnaires, students' opinions about the conversational activity with the chatbots were collected. The results offered an insight on their feelings about the use of chatbots as language assistants for English conversation practice.

The questionnaire includes several questions where students must indicate how much they agree with the proposed statement, using a Likert scale from 1 to 5, where 1 means *strongly disagree* and 5 means *strongly agree*. An analysis of the 72 questionnaires shows a general favourable attitude of the students towards chatbots. In fact, only 9 students in total expressed negative responses to the question *Are you motivated to interact again in English with a chatbot?*, with 2 students (2.7%) selecting *strongly disagree* and 7 students (9.7%) selecting *disagree*.

Responses to the statement *The feedback responses provided by the chatbot seemed useful to me (for example, corrections, alternative expressions, or brief evaluations)* are largely positive. Out of 72 respondents, 47.2% (n = 34) strongly agree and 25% (n = 18) agree with feedback responses being useful, while only 6.9% (n = 5) express disagreement.

Overall, the questionnaires indicate that students generally perceive chatbots as supportive and motivating: many of them praise chatbots' inclusivity (Fig. 15) and report not feeling judged during the interaction, even when they perceive their English proficiency to be low (Fig. 16).

è stato molto interessante e non me l'aspettavo, mi sono sentita veramente inclusa come se stessi parlando con una persona reale

Figure 15. Extract from questionnaire “C\_1”

Translation: “it was very interesting and I didn't expect it,

I felt really included as if I were talking with a real person”

**Ho molto apprezzato questo esperimento perché mi ha permesso di conversare e aiutarmi nel mio inglese senza sentirmi giudicato o disprezzata**

Figure 16. Extract from questionnaire “C\_19”

Translation: “I appreciated this experiment very much because it allowed me to chat, and it helped me with my English without me feeling judged or disrespected”

These feelings recur frequently in students’ comments, alongside appreciation for chatbots’ dynamism (Fig. 17) and perceived objectivity (Fig. 18). The presence of potential biases on the part of chatbots is mentioned only twice in the final open-ended responses: in questionnaires C\_68 and C\_61, where two students refer to Pi mentioning the presence of – respectively – “intrinsic biases” and “gender biases”, without further elaboration.

**Lo trovavo più dinamico e coinvolgente**

Figure 17. Extract from questionnaire “C\_70”

Translation: “I found it more dynamic and engaging”

**Certo, ero d'accordo a tutto ciò che mi ha esposto e ha spiegato la realtà dei fatti.**

Figure 18. Extract from questionnaire “C\_78”

Translation: “Of course, I agreed with everything it expressed to me and it explained the actual reality”

As for other negative aspects that possibly lower conversational quality, several students also mention ChatGPT’s replies being excessively lengthy (Fig. 19), and therefore “not particularly interesting” as one student reports in questionnaire C\_35. Another topic that comes up a few times in the final open-ended question is related to occasions where the two chatbots either hyper fixate on details from the conversation, making it less realistic (C\_60), or contradict themselves (Fig. 20).

### Il chat a volte si dilungava troppo

Figure 19. Extract from questionnaire “C\_43”

Translation: “The chat[bot] sometimes went on for too long”

a volte non coglie il punto della domanda/conversazione,  
oppure a volte risponde con "no" per poi però confermare la  
domanda fatta (si contraddice).

Figure 20. Extract from questionnaire “C\_50”

Translation: “It sometimes doesn’t get the focus of the question/conversation, or it sometimes replies with “no” and then it confirms the question (it contradicts itself)”

## 5. Conclusion

This study investigated ChatGPT and Pi’s use of politeness and empathy when in conversation with Italian EFL university students during conversational practice in English. Furthermore, by analysing students’ post-hoc questionnaire responses, the research aimed to also understand what students thought of the activity and their perceptions of chatbot-mediated language practice. Overall, the analysis shows that both ChatGPT and Pi consistently adopt polite and empathetic interactional strategies throughout their exchanges, displaying great attention towards creating a welcoming and non-judgemental conversational environment.

Politeness is expressed through the frequent use of ritualized politeness markers (e.g., “thank you,” “you’re welcome”) and consultative devices that prioritise the student’s autonomy and reduce imposition (Brown and Levinson 1987) from the chatbot’s part. These strategies are deployed independently of the students’ own interactional style: in fact, regardless of the student’s level of politeness towards the chatbot, both Pi and ChatGPT remain polite – this suggests that politeness is embedded in their design. Pi, in particular, foregrounds politeness from the very beginning of the interaction, initiating its conversations proactively – without waiting for a starting prompt – and explicitly presenting itself as friendly, immediately available to help, and supportive towards the interlocutor. Instances of excessive praise occasionally appear in conversations, resulting in the chatbots risking being perceived as overpolite (Culpeper 2008): this

reduces interactional authenticity and the naturalness of the exchange (Bowman/Cooney/Newbold/Thieme/Clark/Doherty/Cowan 2024), but does not seem to compromise the general outlook of the conversations.

Empathy also emerges as a salient feature of both chatbots. They display it throughout their interactions with students. ChatGPT and Pi’s empathetic behaviour is particularly evident during small-talk segments, where chatbots respond sympathetically to students’ input, acknowledging emotions and offering reassurance every time the students share personal experiences, feelings (both positive and negative) and opinions. Despite their constant politeness and empathy, the two chatbots hardly ever show signs of hesitancy or doubts, usually offering precise responses (Watts 2003) to students’ queries. As a result, hedging structures (kind of, sort of, somehow, etc.) are largely absent. This absence results in responses that are uniformly confident, which may sometimes contrast with authentic human conversational patterns.

Overall, both chatbots appear to construct a specific context of interaction that can be understood as a dynamic mental model framing the conversational practice as low-pressure and supportive, rather than instructional (van Dijk 2008). In this context, the primary goal of the interaction is not linguistic assessment but students’ engagement in the conversational exchange and their sense of ease during the activity. This tendency to sustain and advance the conversation is likely embedded in the very functioning and training of chatbots, which are designed to prioritise continuity, responsiveness, and user engagement over corrective or evaluative feedback.

Therefore, chatbots’ interlocutors are positioned – here - not as students being evaluated, but as conversational partners participating in a safer and informal language practicing exchange. This helps explain why politeness and empathy are so prominent in chatbots’ behavioural patterns. Questionnaire responses further confirm that students value the quality of interaction with chatbots – they feel included, heard, not judged and positively stimulated. This interactional configuration may also help explain why students are particularly satisfied with the conversational activities: as the conversations sound natural and present no type of pressure for students, learners feel at ease and are not prompted to focus on any perceived gaps in their language use. However, this aspect may still be potentially problematic, since - at least on a surface level – chatbots’ behaviour does not encourage metalinguistic reflections or any consideration on the use of English during the conversational exchanges

with EFL learners. Such reflections are essential, too, to foreground language practices aimed at reducing communicative barriers and enabling all students to participate in a language learning experience that is as inclusive and democratic as possible (De Mauro 2018).

At the same time, the data provide also an important warning sign. Several students report perceiving the two chatbots as objective, unbiased, or inherently reliable. This highlights the need for educational interventions on AI systems' limitations, potential biases and perceived neutrality, which could lead to learners overestimating the pedagogical authority or accuracy of chatbot responses.

In conclusion, ChatGPT and Pi can be seen as effective facilitators of low anxiety, engaging conversational practice in EFL contexts, and as complementary tools to traditional teaching environments. They can serve as useful language-practice assistants, fostering motivation and promoting engagement in the language learning process. Our findings are encouraging; yet more research is surely needed to understand how chatbots can better support language learning, how they can refine their feedback strategies without compromising the strength of having a low-pressure environment, and how students can be supported in developing a critical understanding of AI-mediated communication.

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