AI Chatbots as Virtual Conversation Partners: Revolutionizing English Language Learning to Enhance Interactive Communicative Proficiency

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***Abstract*—Chatbots present a unique opportunity to support language acquisition through interactive conversation in a time when digital technologies are increasingly becoming essential to education. This study's purpose was to investigate the integration of chatbot technology into English language learning and its impact on enhancing student engagement and interactive communication skills of the undergraduates in Sri Lanka. This mixed-methods research involved a convenience sampling of 100 second year undergraduates and 2 ESL lecturers from the Faculty of Computing and Technology, from a state university, aiming to assess how chatbot interactions can enhance communication skills. Data was collected through pre- and post- tests focused on speaking proficiency based on selected academic and professional contexts. Further, qualitative data gathered by distributing a questionnaire on students' perceptions of chatbot usage in their learning process on their experience with interactive communicative proficiency. The analysis utilized analytical models of several paired SPSS t tests and thematic analysis. Results indicated significant improvements in key speaking factors like vocabulary, speaking level, accent, and stress patterns before and after the intervention of the chatbot system. It could be noted that the students benefited from communicating with the AI chatbot and saw a considerable improvement in their abilities, indicating that the technology could be utilized as an effective and practical learning tool that provides real-time practice and feedback. Further, the study was conducted over a short period, which highlighted a crucial limitation as the capacity to examine the ongoing generality of the developments. As for the recommendations, it can be mentioned that future research can be focused on the differences in the research-design and features of the chatbot for better understanding of enhancements of the target language skills.**

Keywords—Chatbots, English language learning, Interactive Speaking Proficiency

I. INTRODUCTION

Chatbots and Artificial Intelligence (AI) technologies have recently attracted a lot of interest in the language teaching industry, mostly due to their shown ability to improve students' English-speaking skills. Research on advanced natural language processing (NLP) techniques has sparked discussions among academics and educators on the usefulness of tools like ChatGPT in the context of teaching foreign languages (FL) and second language (L2) acquisition [1]. Several AI-powered chatbots can help improve English speaking skills by offering interactive conversations, personalized feedback, and various practice exercises. Some popular options include ELSA Speak, Talkpal AI, SmallTalk2Me, and Loora.com [2, 3, 24]. These chatbots can mimic real conversations, provide pronunciation feedback, and help build vocabulary and grammar skills [2, 3, 4]. As the complexity of language training increases, the undergraduates show that they can overcome the typical difficulties encountered in traditional language instruction. It is widely acknowledged that artificial intelligence systems are essential tools for facilitating speaking practice, which has a great capability in assisting undergraduates in overcoming the above-mentioned obstacles [5, 6, 7]. Furthermore, it should be mentioned that empirical research is limited in this study area, yet research is still ongoing in diverse and dynamic contexts.

According to studies that are conducting now [8, 9, 24], AI technologies named as speech recognition and virtual instructors could help students improve their speaking and pronunciation abilities. AI-driven feedback produced improvements when compared to non-AI feedback. Speaking abilities are fundamental to language proficiency since they are the main means of communication in daily life. Developing strong speaking skills is typically one of the largest barriers to language acquisition for L2 learners [9, 10, 11]. This difficulty is brought on by several factors, including a lack of quick feedback, fear, and limited practice opportunities. Conventional classrooms may place more emphasis on reading and writing than speaking, which results in undergraduates having worse oral skills, as Hong [12] points out. Additionally, they usually engage in artificial language activities that are different from real-world interactions in exam-focused educational systems, which limit their ability to

participate in natural conversations [12, 14]. So that, it can be mentioned task-based language teaching and scenario-based language assessment are two among many approaches to bring the real world into the classroom and assessment activities, regardless of AI. Free AI chatbots like ChatGPT and DeepSeek also can help bridge this gap by giving students the opportunity to practice speaking in a flexible, low-stress setting. With the help of these freely available online resources, students can engage in conversations that mimic real-world exchanges (even if they couldn't obtain premium versions, they had the opportunity to sign in online for free). This boosts their confidence, fluency, and accuracy in speech [13]. Additionally, chatbots provide immediate feedback, which is important for improving general language correctness and pronunciation that is occasionally overlooked in traditional courses [12].

One of the most innovative technologies employed in recent years to incorporate technology into language instruction is chatbot technology, which enables students to communicate with artificial intelligence. Chatbot technology allows students to practice speaking without feeling under a lot of pressure, which encourages them to communicate more clearly and concisely to improve their competency [11, 14]. Given the growing emphasis on communicative competence in English Language Learning (ELL), it is imperative to investigate the effects of technology aids on speaking proficiency results. The learning environment also affects how students' experiences and results are formed. In a nurturing and resource-rich setting that promotes language practice and learning, taking risks is encouraged. Peer contact and teacher support are two of the many aspects that contribute to the overall quality of the learning environment. Understanding how these components connect to speaking skill is necessary to optimize educational processes [14, 15].

Another important component of ELL is instructor support. The learning process has been greatly enhanced by teachers' tailored instruction and positive feedback. ELL is enhanced by chatbot technology, which takes user input, interprets it using natural language processing, and then creates a response while integrating learning analytics to track student development [17, 18, 19]. Students' comprehension of the characteristics of language usage appears to be strengthened when teachers engage with them and offer helpful criticism. This helps students become more proficient speakers and confident language masters. Furthermore, studying time is quite important for learning outcomes. There is strong evidence to support the common link between practice time and language acquisition [20].

More study time gives students the chance to practice speaking skills more deeply, which typically raises their confidence and fluency levels. If ELL students dedicate time to speaking practice, their proficiency will significantly increase [2, 5, 7]. Enhancing any successful language learning strategies requires a thorough grasp of the connections between the foundations. The situation is further complicated by the mediating effects of student participation. High levels of student involvement will open doors to improved methods, which will enhance the students' language proficiency. An essential and all-encompassing component of ELL is indicated by the dynamic interaction between chatbot technology, the learning environment, instructor support, and study time.

The relationship between chatbot technology and learning outcomes offers important insights into enhancing the ELL experiences of students, as the educational landscape is ever evolving. Because of its sophisticated natural language processing (NLP) skills, the chatbot used in this study was able to effectively comprehend and interpret the verbal inputs of the pupils [5, 24]. The chatbot provided tailored feedback and instruction by mimicking real-life encounters, focusing on common speaking issues such stress patterns, intonation, pronunciation, and fluency.

The chatbots also included gamification components to boost student motivation and engagement, which improved the effectiveness and enjoyment of the learning process. The purpose of this paper was to investigate how the use of chatbots in the ELL domain enhances undergraduates' learning and communication interactions as well as their general speaking abilities in a variety of educational contexts.

Further, as an example it can be mentioned that chatbots' potential in Vietnamese language instruction in Vietnam, speaking English is increasingly seen as essential for both international communication and economic development. High class sizes, lack of resources, and an exam-focused approach that prioritizes reading and writing over speaking abilities are common problems in English education [22, 23]. Therefore, chatbots with artificial intelligence offer a scalable solution that enables students to participate in authentic English conversations outside of the classroom [22, 23, 24]. According to Rudolph et al. [15, 16], chatbots can lessen teachers' workload by automating tasks like coming up with discussion themes and expressing perspectives. This enables educators to focus on more challenging assignments, such as facilitating discussions and offering tailored assistance.

Teachers in Vietnam could improve the efficacy of language instruction and assist students in meeting the demands of a rapidly globalizing world by incorporating artificial intelligence technologies into English classes [23]. For instance, the use of chatbots

driven by artificial intelligence, such as ChatGPT, is one potential remedy for ongoing issues with teaching spoken communication skills. These technologies foster an adaptable and relaxed atmosphere where students may develop their confidence, receive personalized feedback, and have genuine conversations [5, 9, 23]. As technology advances, children will have more possibilities to develop the oral competency required for success in global communities, which will encourage creative approaches to language instruction.

A. Research Objectives

To investigate the effectiveness of chatbot technology to enhance the interactive communication skills of second-year undergraduates.

To examine undergraduate perceptions about the use of chatbots as a supportive tool to improve speaking proficiency.

B. Research Questions

How does interaction with chatbot technology influence the development of undergraduates' communication skills?

What are students' perceptions of using chatbot technology in developing interactive communication skills?

II. MATERIALS AND METHODOLOGY

A. Research Design

This study employed a mixed-methods research design to comprehensively examine the impact of chatbot technology on English language learning, particularly focusing on undergraduates' interactive communication skills and their perceptions of chatbot usage in the process of learning English and other subjects/course work in the degree program. The method used in this research involved both quantitative and qualitative research to enable a more nuanced understanding of both the effectiveness and experiential aspects of the above-mentioned intervention.

B. Participants

University learners who joined an English module were involved and they were selected to the study through convenience sampling, as the researcher found it was effective to involve the undergraduates from the selected degree program (*Bachelor of Science in Computer Science*). The sample consisted of second-year undergraduates enrolled in the Faculty of Computing and Technology at a state university in Sri Lanka. A total of 100 undergraduates (n=100) participated in the study. These undergraduates were engaged in English language learning module called *"English for the Professional World"* as part of their academic curriculum at the time. The participants were divided into control and experimental groups, containing 50 undergraduates per each. Furthermore, two ESL lecturers, who were from the same university, oversaw both groups during the intervention period.

C. Research Instruments

Pre- and Post-Test Assessments (Appendix A)

The quantitative data gathered using pre test and post test assessments, involving the utilization of *t* tests to establish improvements in students' speaking skills, namely, fluency, pronunciation, intonation, and stress patterns. The same test was given as pre and post tests for both groups for clear results. The students answered structured tests, which covered all the different tasks and performances of the students. These tests assessed communication skills within academic and professional contexts, focusing on:

- Vocabulary usage
- Fluency and coherence
- Pronunciation
- Interactive communication strategies

The tests were evaluated using a standardized set of rubrics aligned with CEFR (Common European Framework of Reference for Languages) speaking descriptors.

Student Perception Questionnaire (Appendix B)

A structured questionnaire was distributed at the end of the intervention for both control and experimental groups to gather students' qualitative insights on their experience on using the chatbots for communicative proficiency. The questionnaire included:

- Likert-scale items on ease of use, perceived usefulness, and engagement
- Open-ended questions on perceived challenges and benefits
- Items addressing motivation, confidence, and autonomy in speaking

This integrated approach made a comprehensive comparison between numerical results and personal perceptions to view how chatbot technology can promote and enhance communication skills and engagement in the undergraduates learning process in the university context.

D. Intervention Procedure

The intervention was conducted over a short period of [8-10 weeks], during which undergraduates in the experimental group engaged with an AI-powered chatbot specifically designed for the usage of authentic and professional conversations. They interacted with the chatbot for an hour per session and 2 sessions per week. Moreover, the selected chatbot provided immediate feedback on the student's pronunciation, vocabulary choices, and grammatical accuracy including the syntax and semantics usage according to the provided context. The interaction tasks included role plays, short conversations, and scenario-based dialogues and a few monologues as well to break the monotony of the lessons included in the intervention

session. Furthermore, the goal was to offer students with consistent, interesting and authentic-contextual opportunities to practice speaking in English, thereby promoting real-time learning and self-correction. The control group had the conventional method of learning/ teaching with no AI-powered chatbots added.

E. Data Collection

Quantitative data was collected through pre and post tests, which were administered in a controlled classroom environment. The speaking tests were audio-recorded and assessed by two trained raters to ensure inter-rater reliability.

Qualitative data was collected via the questionnaire, which was distributed electronically through a Learning Management System (LMS) after the intervention period. Responses were anonymized to protect student identities.

F. Data Analysis

Quantitative Analysis

The pre and post test scores were analyzed using four paired sample *t* tests via SPSS to determine the statistical significance of the developed skills in speaking proficiency. Additionally, the analysis focused on changes in vocabulary use, pronunciation, grammar, and overall speaking score. Although repeated measures ANOVA would be statistically more robust, paired sample *t* tests were used due to the specific design and analysis scope of the study. Future research is encouraged to apply ANOVA to capture interaction effects more comprehensively.

Qualitative Analysis

The responses gathered from the questionnaire items were analyzed using thematic analysis and they were related to students' perceptions. Coding was done manually and verified through cross-checking by a second researcher to ensure validity.

G. Ethical Considerations

In this study, the researcher provided the participants of the study with information about the study, after receiving ethical approval from the faculty. An informed consent letter was sent to get permission to gather consent from the participants. They were provided with enough information to make an informed decision about whether to take part in the study. Further, information included on how and for what purposes the data was used. The participants were also provided with a consent form as a google form. The researcher then contacted the ESL lecturers to participate in the study based on volunteer status and provided detailed consent forms for them. The researcher-maintained participants' confidentiality; personal details were not mentioned, and data were stored and disposed of securely.

III. RESULTS AND DISCUSSION

A. Sample Collection – Quantitative Data Analysis

One of the most popular statistical techniques for comparing the control and experimental groups' means and determining whether they differ from one another is the t test. Four paired sample *t* tests were used in this study to examine the ELL students' pre and post tests results after using a chatbot during the English module. This test is very useful for evaluating how well educational interventions work because it enables researchers to measure the impact of a a chatbot as a teaching aid on students' communication abilities. The t-test offers solid insights into how the chatbot has affected students' speaking abilities over time by evaluating several variables, including fluency, pronunciation, intonation, and stress patterns. The t-test findings are shown in Table 1 below, which also shows the mean scores (M) and standard deviations (SD) for each speaking skill before and after the intervention.

As mentioned, to measure the effectiveness of the chatbot intervention on students' speaking proficiency in the experimental group, SPSS paired sample *t* tests were conducted. The mean score of the pre-test was significantly lower than the post test, showing and implying the improvement in students' speaking performance. Moreover, *t* tests showed statistically significant differences across all key speaking factors, suggesting that the chatbot technology usage had a positive impact on learners' communicative abilities. These results confirmed that the chatbot intervention significantly enhanced students' speaking proficiency in academic and professional contexts. Given the use of multiple comparisons, a Bonferroni correction was applied to control Type I error, adjusting the significance threshold to $p < .0125$.

Table 1: *t*-test results of the pre and post tests

Component	Pre-Test Mean	Post-Test Mean	*t*-value	*p*-value
Vocabulary	3.2	4.1	6.25	$p < .001$
Fluency	2.9	3.8	5.89	$p < .001$
Pronunciation	2.7	3.9	7.02	$p < .001$
Stress Patterns	3.0	4.0	6.68	$p < .001$

B. Sample Analysis – Qualitative Data Analysis

The thematic analysis from the questionnaire revealed several key insights based on the student opinions. The intervention had increased engagement, as many students noticed that the chatbot offered a non-

judgmental, interactive environment for them during the course along with the teacher feedback as well that encouraged frequent practice to improve their proficiency. Also, it affected the students to build confidence, as participants reported feeling more confident in speaking English due to real-time feedback and repeated practice opportunities whenever they did less to perform and that being compared to the previous experiences they had in their past classroom sessions, the chatbots made it much easier. Moreover, the chatbot integration made the students perceive improvements as they obtained marked improvements in pronunciation and vocabulary usage, which highlighted with the quantitative results which were shown above in table 1.

Additionally, the limitations that were noted were that a few students expressed challenges in understanding complex chatbot responses and expected more human-like conversation features which made it difficult for them to follow yet many of the students who were familiar with the technological interactions helped with the weak students. Overall, the chatbot can be considered as an effective learning tool according to the students as they appreciated the immediacy of feedback and flexibility of access outside formal classroom settings which made many of them follow it autonomously as well outside the classroom for their own language improvement. The themes generated were, increased engagement, confidence building, perceived improvements in language, and certain technological limitations.

C. Discussion

Research Question 1: How does interaction with chatbot technology influence the development of undergraduates' communication skills?"

The quantitative results of this study provide a significant amount of evidence in favor of chatbot technology's efficacy in enhancing ELL learners' speaking abilities. The results from the SPSS paired sample *t* tests demonstrated statistically significant improvements in all measured aspects of speaking proficiency: vocabulary, fluency, pronunciation, and stress patterns. These findings confirmed that the chatbot intervention contributed positively to students' oral performance both inside and outside of the classroom along with their learning in the degree program. For instance, vocabulary scores rose from a mean of 3.2 to 4.1, while fluency increased from 2.9 to 3.8. All components showed p-values < 0.05, showing and indicating that these gains were not due to chance.

These results show and align with previous studies that emphasized the value of chatbot technology in developing speaking skills. The study by Li, Cummins, and Deng [1] demonstrated that AI-driven conversational tools significantly enhance and improve interest in learners' vocabulary acquisition and oral fluency just by offering contextualized dialogue practice. Similarly, Wang and Petrina [2] argued that teachers offering real-time feedback foster more accurate and confident speech production, which was evident in this study as well.

Moreover, chatbots provide interactive, low-pressure environments that reduce learners' anxiety and low-confidence of making mistakes—a common barrier in second language acquisition according to Krashen [5]. The students in this study benefited from practicing speaking without fear of judgment, which allowed for greater risk-taking and experimentation with language as they interacted with the chatbots and when they needed help the teacher in charge of the course helped them to go along with the instructions. These conditions were conducive to enhancing communicative competence as defined by Canale and Swain [4, 6], which included grammatical, sociolinguistic, and strategic components.

The consistent improvement (Figure 1) across all speaking components also supported the idea that chatbot interventions could meet the specific needs of academic and professional communication which can hardly be done in the classroom, as there are many students who seek to hide from speaking even in individual phase. According to Satar and Akcan [5, 8], regular exposure to simulated real-life dialogues can significantly improve learners' ability to engage in structured academic discussions and workplace-based contexts in their practice and authentic conversations. Given the structured and contextualized nature of the chatbot dialogues in this study, learners were likely better prepared for real-world communication tasks compared to what they have done in the classroom so far, and which made them grow an interest in the intervention.

It can be mentioned that the findings for the research question 1 validate that chatbot integration enhances speaking proficiency significantly. This further confirmed the achievement of Objective 1, as the intervention resulted in measurable improvements in language performance which was relevant to the academic and professional domains.

Research Question 2: What are students' perceptions of using chatbot technology in developing interactive communication skills?

The qualitative findings, derived from thematic analysis of questionnaire responses, revealed that students generally perceived chatbot-based learning as beneficial and engaging. It can be mentioned that four major themes emerged based on the thematic analysis: increased engagement, confidence building, perceived improvements in language, and certain technological limitations.

Increased engagement was one of the most prominent themes that occurred. Students frequently reported that the chatbot made learning more interactive and enjoyable. According to the findings from the questionnaire, the researcher concluded that chatbots were preferred by these students in the experimental group because they were more convenient than the traditional platform. When they used the chatbots during the intervention they found them to be more efficient and supportive than books; a chatbot based on their responses – many students proved effective. This finding was supported by the study done by Huang et al. [12], who found that chatbot-supported learning environments promoted higher levels of learner engagement due to their interactive and responsive design. Learners felt motivated to use English more frequently and independently, which contributed to language practice beyond the classroom. According to the study students further preferred using chatbots as language learning tools for a variety of reasons, and which was supported by Kim [22], including the following: through interactive learning sessions, chatbots enabled students to actively connect with the language. Chatbot conversations and dialogues offered real-life discussion, making learning more dynamic and enjoyable. According to this study, when asked about participants' practice routine, they spent 5-15 minutes in their free time conversing with the AI voice chatbots.

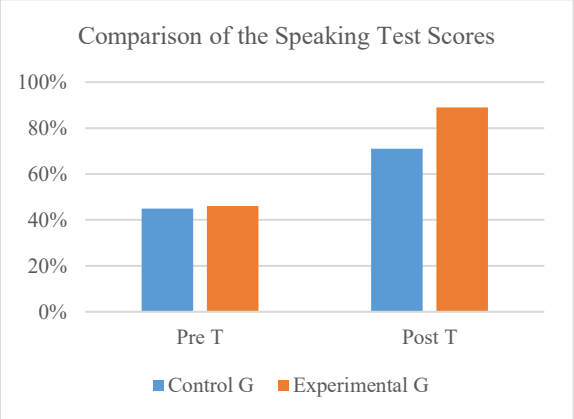


Fig. 1: Comparison of the Speaking Test Scores

"Normally I practiced speaking English with the AI voice chatbot for about 10-15 minutes when I was free." (Participant 2)

"When I had free time, I usually spoke three or four times a week. I often used the AI speech chatbot for ten to fifteen minutes at a time." (Participant 5)

The theme of confidence building also aligned with prior literature. Many students indicated that the chatbot helped reduce anxiety and increased their willingness to speak in English. When compared to the previous experience based in the physical classrooms and in online classrooms, there was a major issue that the language teachers were familiar with when it came to speaking sessions, that the students did not intend to speak due to their lack of confidence and anxiety of getting negative feedback. However, with the integration used in the experimental group, it was made clear that the students found it rather convenient and effective as they can develop themselves with the use of technology at any time and place, they prefer. This perception was supported by the study of Reinders and Wattana [8, 9], who found that learners interacting with chatbots, or game-based digital agents felt more comfortable and interested in taking linguistic risks, thereby enhancing their speaking skills.

In this study, participants seemed to gain confidence which was grown from repeated exposure to authentic language use in a judgment-free environment through AI-powered chatbots. The reasons were that they needed to improve their skills and that they often faced difficulties with speaking fluently and using English language. According to the researcher's perspective, the pupils used the chatbot as a learning aid because they received assistance from it. Conversely, chatbots might be able to offer immediate feedback on grammar, pronunciation, and language use. The learning process was accelerated because prompt corrections allowed pupils to learn from their errors and promote proper language usage.

Students also expressed perceived improvements in vocabulary usage and pronunciation while intervening with the chatbots they have used. These self-assessments corresponded with the objective test results, indicating a correlation between learners' perceived progress and actual performance improvements. As emphasized by Godwin-Jones [9], learners' metacognitive awareness of their progress was a vital aspect of autonomous language learning, which the chatbot environment appeared to have encouraged. Moreover, students largely felt that the chatbot platform affected both their learning experiences and their preparedness to communicate in English when it came to their openness to be persuaded. According to the researcher's findings, which were corroborated by a previous study by Cakmak [10], interacting with a chatbot may increase learners' confidence in their ability to speak English since chatbots offer a low-pressure, nonjudgmental setting for language practice. Additionally, based on the data, many students reported that the chatbot's ability to provide audiovisual aids, provide clear instructions, and translate into other languages helped them learn something new. Consequently, the study addressed the reality that chatbots replicated conversations in real life, enabling the usage of linguistic skills. For students who wish to utilize the language in authentic contexts, this could be quite helpful.

Most students stated positive through the questionnaire that there were two reasons why they could talk with better pronunciation. First, because the AI voice chatbot sounded like a native speaker, people could practice pronouncing words correctly by listening to the speaking voice several times. Second, participants had to try speaking more attentively and pronouncing words correctly once they saw the words on the screen change when they pronounced a sentence incorrectly. According to the students, the AI voice chatbot's usage of several new words throughout talks, as well as its ability to recommend and clarify new phrases for them to learn during conversations, helped them expand their vocabulary. It should be mentioned that while speaking with the use of AI voice chatbots students learnt more vocabulary and grammar and the Connectivism paradigm was linked with an expert source of language information Additionally, to help students become more familiar with a virtual English language environment, the chatbot could speak repeatedly in a native voice. Students could get inspired to talk more and overcome their speech barriers in this setting [9, 15, 17, 20].

This study demonstrated that the AI voice chatbot has enhanced students' accuracy and fluency in speaking English while also giving them a comfortable atmosphere to do it. The study makes recommendations for further research as well as some implications for the usage of AI voice chatbots in the classroom. Teachers are advised to incorporate the AI voice chatbot into their lesson planning for teaching and learning activities to address pedagogical concerns in the university context. Nonetheless, the planned operations must adhere to certain goals and objectives. When students are interacting with the AI voice chatbot, for instance, teachers can establish clear speaking objectives for them, such as how many times they should repeat their words for the chatbot to comprehend and react appropriately [15].

However, students noticed several limitations as well, such as challenges in understanding complex or contextually inaccurate responses from the chatbot if they were not much familiar with the chatbots even though they were following a computer science degree. This was consistent with Fryer and Carpenter [11, 12], who cautioned that overly scripted or unnatural chatbot responses could hinder authentic communication. Further, some students wanted, and they expected more human-like responses and cultural relevance, suggesting that chatbot design needed to be continually refined to meet learner expectations and context-specific needs which were questionable yet accepted. Despite these limitations, the overall perception was positive, with students recognizing the chatbot as a valuable supplement to traditional instruction as they felt difficult while learning in the classroom and trying to correct themselves in the classroom.

Therefore, the analysis confirmed that students did not only accept but also appreciate the role of chatbot technology in improving their communicative competence as that made them aware of how to improve themselves even after the intervention autonomously in and outside the classroom. These perceptions fulfilled the second objective by providing insight into how learners experienced chatbot-assisted language learning and highlighting both the strengths and areas for improvement of the undergraduates.

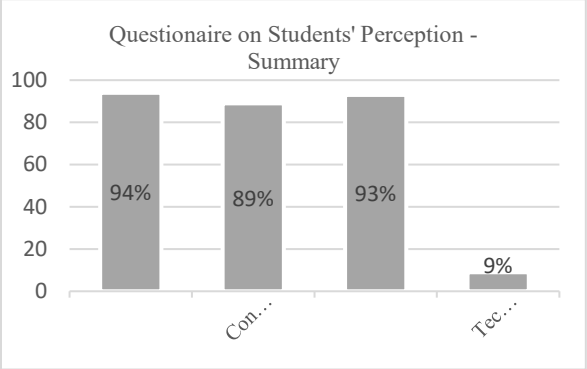


Fig. 2: Questionnaire Results of Students' Perception

IV. CONCLUSION

In conclusion it can be mentioned that teaching English as a second language has improved speaking abilities among students in the university context with the usage of AI. The study showed notable gains in important speaking variables such as vocabulary, speaking level, accent, and stress patterns both before and after the chatbot system intervention through the evaluations and mixed-methods approach. Beginner, intermediate, and advanced students all benefited from speaking with the AI chatbot and saw a significant improvement in their speaking abilities, indicating that the technology could be used as an effective and practical learning tool that provided authentic practice and feedback. The study contained several limitations despite these findings. First, it was important to note the very brief follow-up duration. Further, the study was conducted over a short period, which highlighted a crucial limitation as the capacity to examine the ongoing generality of the developments. Future studies should try to circumvent or lessen these restrictions by utilizing more objective language assessment techniques and lengthier follow-up tests on the durability of the acquired skills. Furthermore, to better understand how to improve the learning process for different learners, future research may concentrate on the variations in the chatbot's features and design. The study can improve ELL's growth and support the continuous improvement of teaching methods by incorporating more elements.

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