ELTLT 14 (2025): 243-267
The Proceedings of English Language Teaching, Literature, and Translation
QRCBN 62-6861-8367-215
https://proceeding.unnes.ac.id/eltlt

Gen Z Students' Readiness for AI-Assisted English Speaking Practice: Qualitative Analysis

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Abstract. This study aims to explore the perceptions and attitudes of Generation Z (Gen Z) students who are considered digital natives and interact with AI technology in English speaking practices. This study moves beyond conventional quantitative measurements to delve into the distinct qualitative psychosocial dimensions in question. Through a qualitative exploratory approach, perceptions, challenges, and expectations that students hold concerning educational technologies such as chatbots and speech recognition software were analyzed utilizing semi-structured interviews, reflective journals, and field notes. Findings indicate that even though students in this age cohort are technologically adaptive, they experience high levels of AI-induced emotional disengagement. In addition, Gen Z expresses a new form of "perfection anxiety" that relates to the pervasive tech issue AI faces in accurately capturing speech. This tension underscores a paradox in contemporary AI design, while AI interfaces have the potential to enhance multilingual pedagogical practices, they starkly lack the empathy and emotional sensitivity required to support psychosocial interaction. This study proposes advances the design of pedagogical AIs beyond the provided functionalities and aims by addressing the intrinsic design requirements that emerge from the learner level, thus, holistically attending to the psychosocial and emotional dimensions of fluency needs of digitally proficient Gen Z learners.

Keywords: AI; speaking skills; Gen Z learners; communicative readiness

INTRODUCTION

This research investigates the willingness of students from Generation Z (Gen Z) to practice English using artificial intelligence (AI) in the context of remote learning. As learners of Gen Z, they are considered digital natives. Thus, they are familiar with technology, require interactive and engaging content, and demand immediate feedback. Using a qualitative exploratory framework, the current study centered on learners' perceptions, worries, and anticipations in relation to AI-based applications such as voice and chat recognition programs. However, it was evident from the findings that students exhibited considerable adaptability to AI and a decline in speech-related anxiety. Concerns regarding AI's emotional aloofness and poor internet connectivity as a technological constraint were also voiced. This study illustrates the paradox of Gen Z's AI adoption: technological adaptability coexists with a lack of psychosocial support. This study adds to the discourse on the psychosocial characteristics of the Gen Z cohort, with the later implications of AI's role in language learning framed from a learner's perspective which is often overlooked in quantitative frameworks. The study addresses the intersection of digital literacy and emotional learning, proposing actionable strategies for the design of pedagogically integrated and emotionally attuned AI applications tailored for Gen Z learners.

The educational landscape has been irrevocably transformed by Gen Z's living contact with technology, on-demand learning, and their interactive technological competencies (Alrayes et al., 2024; Alshurideh et al., 2024; BenMessaoud et al., 2023; Chiu, 2024; Elebyary & Shabara, 2024; Frøsig, 2023; Lin et al., 2023; Markos et al., 2024; X. Zhou et al., 2024). These learners born in the mid-1990s to early 2010s demonstrate adaptive behaviors like multitasking with digital platforms, needing instant feedback, and AI voice command interaction (A Lee et al., 2023; Cavallaro et al., 2024; Gobinath et al., 2024; Ibrahim & Bilquise, 2024; Maquilón et al., 2024; Matthews & Volpe, 2023; Polakova & Ivenz, 2024; Sullivan et al., 2023; H. Yang et al., 2022; J. Zhou, 2019). Gen Z's AI proficiency makes them key contributors in to the field of artificial intelligence (AI) in relation to language learning and English language mastery. However, concerning the use of technology in language learning, the need for authentic learning and emotional connection, which are traditional social needs of Generation Z, has not been sufficiently met. This research seeks to fill this void by analyzing the interactions

of Generation Z students with AI applications for speech training, focusing on the participants' expectations, concerns, and perceived levels of readiness.

The educational sector's growing surge of digital transformation has spurred the use of artificial intelligence-based tools such as automatic conversational chatbots and speech recognition software that offers instant personalized speaking exercises (Bower et al., 2024; Thi Nguyen et al., 2024). While these innovations may improve overcoming fears of speaking and the limited chances learners have to practice, it does not free learners from the burden of being willing to embrace these changes ((Bouteraa et al., 2024; Bukar et al., 2024; Dehghani & Mashhadi, 2024; Isiaku et al., 2024; Killian et al., 2023; Michel-Villarreal et al., 2023; Ngo et al., 2024; Sandu et al., 2024; Tran, 2025; Tsai et al., 2023). For Generation Z, the influence of digital technologies on educational activities presents both benefits and challenges. Their expectations of educational content being easy, engaging, and sociable are unlikely to be met by current AI technologies, despite this generation's tendency to rapidly embrace new tools (Alrayes et al., 2024; BenMessaoud et al., 2023; Bukar et al., 2024; Cegarra-Navarro et al., 2014; Celik et al., 2024; Chen et al., 2025; Chiu, 2024; Dimeli & Kostas, 2025; Elkhodr et al., 2023; Janno & Koppel, 2018; Z. L. Liu, 2025; Ljubojević et al., 2023; Patsakula et al., 2022; Tarisayi, 2024; Zhao et al., 2013; X. Zhou et al., 2024). These changes, especially in the context of marginalised education, raise significant concerns in regard to how Generation Z learners negotiate the realities of artificial intelligence in language mastery.

The integration of artificial intelligence in education adopts a more quantitative approach in the academic world like the Technology Acceptance Model which predominantly focuses on adoption metrics and technical effectiveness. These approaches neglect the comprehensive narratives of Generation Z learners. Instead of viewing AI tools as mere alters of identity and emotional engagement tools in identity and embodiment, engagements which evoke resonance and self-inflection, they orchestrate a multiplicity of roles (Al-Abdullatif, 2023; Aryadoust et al., 2024; Benuyenah & Dewnarain, 2024; Gusman et al., 2024; Honig et al., 2024; Jayasinghe, 2024; Koech et al., 2022; Mamo et al., 2024; Nam & Bai, 2023; Qiao & Zhao, 2023a; Sevnarayan, 2024; Williams, 2023; Yan, 2023; X. Zhou et al., 2024; Zirar, 2023). While some studies suggest AI's potential in fostering fluency and diminishing anxiety, very few have examined the features of Generation Z, such as their preference for collaborative and visually dynamic learning, and their engagement with AI-enhanced speaking practices (Aryadoust et al., 2024; Chen et al., 2025; Darmawansah et al., 2025; Fan, 2014; Gusman et al., 2024; Honig et al., 2024; W. Hwang et al., 2024; Ilyas, 2016; Kim et al., 2021; Qassrawi, 2024; Qiao & Zhao, 2023a; Tlili, 2023; Williams, 2023; Y.-T. Yang & Chang, 2024; J. Zhou, 2019; Zou, Du, et al., 2023; Zou, Guan, et al., 2023). This research seeks to fill this void by focusing on Generation Z's perception and employing qualitative approaches to understand their views, concerns, and aims in AI-enhanced language education.

This research undertakes the premise that education holds the potential for transformative change not only in relation to new technologies, but also with respect to learners' mastery of these technologies (Alismaiel, 2021; Almassaad et al., 2024; Alshurideh et al., 2024; Alwazzan, 2023; Asad et al., 2021; Cambra-Fierro et al., 2025; Capperucci et al., 2022; Chara et al., 2023; Dimeli & Kostas, 2025; Gaille, 2018; Hao, 2022; Hasumi & Chiu, 2024; Jo, 2024; Kuddus et al., 2024; Lim, 2017; Z. Liu et al., 2023; Ljubojević et al., 2023; D. Ma et al., 2024; Mandai et al., 2024; Markos et al., 2024; Nikoçeviq-Kurti & Bërdynaj-Syla, 2024; Prensky, 2021; Salifu et al., 2024; Stöhr et al., 2024; Thi Nguyen et al., 2024; Uppal & Hajian, 2025; Y. Wang & Kabilan, 2024; Yu et al., 2024; Zekaj, 2023; Y. Zhang et al., 2023). Gen Z claims that this readiness emphasizes not only technical developments but also communication and emotional intelligence, which are regularly influenced by organizations and society (Cai et al., 2020; J. Huang et al., 2022; Lee et al., 2024a; Teng & Huang, 2025; B. Yang et al., 2018). By putting Gen Z's viewpoints first, this study dispels myths about their consistent technological competence and emphasizes the need for AI designs that take into account their cognitive, social, and affective learning requirements. The results are intended to help educators, curriculum designers, and AI developers make learning resources for this generation of digital natives that are more inclusive, responsive, and emotionally intelligent. This study addresses the following research questions:

1. How do Gen Z students perceive the use of AI tools in English speaking practice?
2. What are the key challenges and facilitators Gen Z students encounter when using AI for speaking practice?
3. How do the generational characteristics of Generation Z (for instance, technological fluency and preference for interactive engagement) affect their readiness for AI-assisted language learning?

QRCBN 62-6861-8367-215
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METHODS

The preparedness of Gen Z students for AI-assisted English speaking practice was examined in this study using a qualitative exploratory methodology. Undergraduate students taking digital English courses that included AI tools like speech recognition software and conversational chatbots participated in semi-structured interviews. Participants' opinions, experiences, and difficulties with using AI for speaking practice were the main topics of the interviews, with special focus on fluency, confidence, and anxiety. Thematic analysis aligned with Braun & Clarke's (2021) six-phase model to find recurrent patterns and issues in the data. This approach offers a broader understanding of students' emotional, cognitive, and behavioral engagement with AI learning and their communicative and technological readiness (Al-Abdullatif, 2023; Al-Emran, 2024; Aryadoust et al., 2024; Benuyenah & Dewnarain, 2024; Chen et al., 2025; Ilyas, 2016; Mamo et al., 2024; Mandai et al., 2024; Yan, 2023; Y. F. Yang, 2024; Zirar, 2023). Understanding students' emotional, cognitive, and behavioral responses to AI learning in greater detail reveals their technological adaptability and communicative readiness (H. Huang, 2024; Susnjak & McIntosh, 2024; X. Wang & Shang, 2011).

In collecting data, there is active effort to represent different cultural and linguistic backgrounds so that perspectives about AI-assisted learning capture a wide breadth of inclusion. Organization and coding of the interview transcripts is done with the aid of NVivo, allowing for systematic identification and analysis of themes such as emotional reciprocity, the technical barriers, and the perceived effectiveness of AI tools. Prior research by Lai and Wang in 2022 showed that students' voices were seldom heard when more quantitative approaches, like usability ratings, adoption numbers, and other tallies were relied upon. Focusing on subjective narrative in this case fills a major gap in the literature, which is heavily devoid of the psychosocial aspects resulting from the integration of AI into language education (Abduljawad, 2024; Adžić et al., 2024; Bekkar & Chtouki, 2024; Bouteraa et al., 2024; Gusman et al., 2024; Ivanova et al., 2024; Lemmon et al., 2011; Maurya, 2024; Rudolph et al., 2023; Valova et al., 2024; Zakarneh et al., 2025).

The fidelity of the research methodology was complemented by member checks, where study participants scrutinized the results for verification of alignment with their experiences. This approach aligns with the constructivist paradigm, emphasizing the co-creation of knowledge between the researcher and the subjects of the study (Braun & Clarke, 2021). These results illuminate the paradox of Generation Z being simultaneously advocates and adversaries of artificial intelligence technologies, emphasizing the paradox of high levels of technological literacy and lower levels of expectation for a responsive and emotionally attuned learning environment (Al-Emran, 2024; Chen et al., 2025; Elebyary & Shabara, 2024; Elkhodr et al., 2023; Gobinath et al., 2024; Hapsari & Wu, 2022; Holderried et al., 2024; Klimova & Chen, 2024; D. Ma et al., 2024; Nam & Bai, 2023; Qiao & Zhao, 2023b; Silva et al., 2024; Yan, 2023; Zakarneh et al., 2025; Zawacki-Richter et al., 2019). This singular focus with the qualitative approach provides a holistic view of readiness, going beyond technical proficiency to include social and emotional factors that shape students' engagement with AI in language learning. SINI

Research Design

This case study analyzes the views and experiences of students on the use of AI for practice of English in the context of an online course through a qualitative lens. While the effectiveness of AI technologies in language practice should be evaluated, the meaning-making processes during and after the interactions need equal consideration. The teaching of languages is starting to include tools like conversational chatbots and speech recognition systems (Alshurideh et al., 2024; Alwazzan, 2024; G.-J. Hwang et al., 2020; Tsai et al., 2023; Uppal & Hajian, 2025; Xu, 2025; Y. Zhang et al., 2023). In order to capture the views of learners and understand the impact of AI-driven speaking practice on learner readiness, we decided to use qualitative approaches. This is relevant in situations where there are imbalances in the level of institutional support, and their level of technological competence (Bozkurt, 2023; Holderried et al., 2024; Imran et al., 2024; Klimova & Chen, 2024; Lemmon et al., 2011; Milovic et al., 2024a; Polakova & Ivenz, 2024; Runge et al., 2024; Shata & Hartley, 2025; Su & Yang, 2024; Wahyuni et al., 2024; Y. Wang & Xue, 2024; Xu, 2025). The use of semi-structured interviews, reflective journals, and observation notes provides insight into the AI language learning context, exploring the learners' cognitive and emotional experiences, behaviors, and AI-associated language learning.

At present, the focus is on the students' viewpoints and experiences regarding the use of AI in practicing English in online learning environments and it employs qualitative research. Besides the significance of the meanings students make, the effectiveness of the AI tools in use should be evaluated, too. The teaching

and learning of languages is changing with the advent of new technologies like verbal interactive chatbots and speech recognition software (Bukar et al., 2024; Dimeli & Kostas, 2025; Fecher et al., 2025; Maurya, 2024; Milovic et al., 2024b; Popenici et al., 2023; Sandu et al., 2024; Silva et al., 2024; Thominet et al., 2024; Tran, 2025; Tsai et al., 2023). "Mastering AI technologies" is particularly important in situations with a lack of balance between the amount of institutional support and the level of technological sophistication (Chen et al., 2025). The adoption of qualitative approaches is guided by the intention to balance the focus on learners with an understanding of the impact of AI speaking features on learners' readiness for communication. The qualitative approach rests on learners' experiences for their understanding of the behavioral, cognitive, and emotional aspects of language learning technology using AI with semi-structured interviews, reflective journals, and observational notes.

The use qualitative approaches resolves the gaps in the literature that relies heavily on TAMs-algorithms, and quantitative methodologies on artificial intelligence systems (Al-Dokhny et al., 2024; Albayati, 2024; Ali et al., 2018; Kanont et al., 2024; K. Ma et al., 2024; Tsaur & Lin, 2018). While Technology Acceptance Models (TAMs) have great predictive power on behavioral intention and intention and interaction, they often fail to address the context and emotional and socio-cultural factors that surround the relationship and the use of the artificial intelligence technologies by students. The analysis conducted (Albayati, 2024; Alrayes et al., 2024; Aryadoust et al., 2024; Tsai et al., 2023; Uppal & Hajian, 2025). Students have the ability to maneuver through the AI-powered speaking practices offered by the education systems in their countries, which led the study to focus on phenomenological questions instead predictive evaluations. Moreover, this model captures and accentuates the roles of self-efficacy, peer-to-peer engagement, and the critical institutional support scaffolding, which arguably, get drowned in the conversations on the use of technology in educational context (Chen et al., 2025; Z. Liu et al., 2023; Orngreen, 2000; Yin, 2024; J. Zhang, 2022).

This study focuses on students' stories to analyze the role of AI in either fostering or hindering confidence and communicative fluency. This study applies inductive thematic analysis where NVivo is used for systematic coding and triangulation of data to reveal certain prominent patterns in students' experiences (Braun & Clarke, 2021). The meticulousness with which the research is conducted not only ensures precision in methodology but also increases the credibility and reliability of the research by blending data from reflective journals, observation notes, and interview transcripts. Such research not only enriches the expanding field of AI and language education by providing context on how students adapt to and embrace AI tools within their speaking practice but also broadens the understanding of the context and ways in which students come to understand. The results are expected to serve as the basis for curriculum and instructional design, pedagogical frameworks, and the development of AI tools in alignment with the call for more student-centered research in the field (Cabero-Almenara et al., 2025; Ibrahim & Bilquise, 2024; Kritandani et al., 2024; Lyu et al., 2025; Mandai et al., 2024; Tarisayi, 2024; Zou, Du, et al., 2023).

Respondents

This study involves 51 Generation Z students, aged 18 to 22, from an Islamic higher education institution in Indonesia. The students were enrolled in a comprehensive Speaking and Listening course. The study employed targeted sampling to select participants based on their actual engagement with digital platforms, including their active use of AI-driven speaking tools and their prior exposure to AI applications such as chatbots and speech recognition technologies. This was done to demonstrate their generation's preference for technology-assisted education (Al-Emran, 2024; Chara et al., 2023; Nitsche et al., 2022; Song, 2024; Xing, 2008; Y. Zhou, 2024). The study's contextual background reflects a noteworthy trend in higher education today: the increasing use of artificial intelligence in language instruction, especially in the wake of the COVID-19 pandemic's digital acceleration (X. Huang, 2023; Lee et al., 2024b). While students are now expected to be familiar with language and digital technology, not much is known about how they actually use and respond to AI-based speech tools in the classroom

The participants represent a unique intersection of digital natives and language learners who must navigate both technological and communicative challenges. Previous investigations have underlined the importance of technological readiness (Falebita & Kok, 2025; Yoke et al., 2019) and emotional assurance in utilizing AI for communicative tasks (Matsiola et al., 2024); however, there is little research that has examined students' subjective interpretations of their learning experiences during interactions with AI. This study seeks to fill the void by highlighting the views of Gen Z students, who are often overlooked because the previous research focus was more on the technical aspects of the effectiveness of AI. In the domain of language

QRCBN 62-6861-8367-215
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proficiency, there is an urgent and critical need for a more comprehensive understanding of the various dimensions related to students' readiness levels, their perspectives on the learning process, and the complex procedures in which they engage and interact with artificial intelligence, especially given the rapidly increasing trend of technology-based self-communication that is increasingly dominant in modern society.

In addition to the quantitative framework exemplified by the Technology Acceptance Model (TAM), which primarily focuses on measurable outcomes, this particular research adopts a qualitative methodology that seeks to explore and analyze the rich narratives and personal reflections of students regarding their life experiences and interactions with artificial intelligence (Davis, 1989). Given that we are in a digital generation, this investigation places significant emphasis on improving verbal communication skills, the spectrum of evoked emotional responses, the development of self-confidence, and the technological competencies that students are perceived to possess in an increasingly digital world. The primary objective of this participant-centered methodological approach is to provide actionable guidance for educators and app developers aimed at creating efficient AI tools that assist in the generation of meaningful language while meeting the diverse and multidimensional needs of Generation Z learners in multiple learning environments.

Instruments

The qualitative instruments of this study aimed to capture the lived experiences and perceptions of Generation Z learners with an AI-assisted English speaking practice. The data collection methods used in the study reflected the psychosocial, emotional and cognitive learner readiness in the context of a technology enriched environment.

The AI tools utilized by learners, including chatbots and speech recognition programs, were individually covered in open-ended interviews. These interviews were organized according to three main self-reports: self-assessed communication skills, degree of familiarity with technology, and emotional responses towards AI tools. Each interview session of 45 to 60 minutes was recorded literally to guarantee accuracy in language and context. Along with the interviews, participants were asked to maintain a reflective journal for four weeks in which they recorded their daily interactions with AI tools, their feelings, and the events surrounding their speaking practice. This implemented time-series method was effective in observing the dynamic self-reports of the learners especially in relation to the processes of self-assurance and anxiety control.

During AI-integration into classroom practice, spontaneous learner actions including peer interaction and engagement were documented in observational field notes. These field notes enhanced the insights received from interviews and journals by documenting the social interactions within AI-enabled role-play and speech practices. In addition, NVivo software was used, not as a qualitative data collection tool, but as an aid for organizing and analyzing the data. This software aided in thematic triangulation across the data. This ensured analytic rigor and alignment with Braun and Clarke’s six-phase thematic analysis. Each instrument was chosen to amplify the students' voices, demonstrating empathy-driven and culturally attuned AI engagement. The integration of these instruments adds to the study’s aim of addressing the theory-practice gap underscoring learner narratives in contrast to algorithmic metrics.

Data collection procedures

In guiding the procedures for data collection, there was a pronounced focus on the voices of Generation Z students to capture their readiness to engage with AI in an English speaking practice session with a richly textured qualitative lens. Given the sparse, if not absent, literature on the active role learners engage with in terms of using chatbots and speech recognition for language learning, the study took an exploratory approach, moving away from technology-focused ones like the Technology Acceptance Model (TAM). This study, in contrast, emphasized processes of understanding within genuine teaching contexts.

Participants were purposefully chosen from an undergraduate EFL cohort because they possessed relevant digital skills and had previous experiences interacting with learning technologies in blended and fully online virtual settings. Their cultures and languages were different, which helped the study stay true to the inclusivity and equity principles in the technology and education research field. The main method of data collection was semi-structured interviews, which enabled participants to tell their stories and express their thoughts and feelings about their language competencies. The interviews were conducted over a period of 45 to 60 minutes, with participants’ consents, and were audio recorded. They were transcribed verbatim to maintain the nuances of the participants’ expressions. The interviews were framed by three overarching themes. First,

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their perception of AI as a communicative interlocutor; second, evaluation of interaction via AI speech technologies; and third, how confidence and fluency were learned and practiced.

Students wrote reflective journals over four weeks to gain longitudinal insights into their affective and behavioral adaptation. These reflections portrayed a narrative glimpse into daily encounters with AI tools, emotions, problems faced, and internal feedback mechanisms. The reflective journals helped achieve the study's aim of monitoring changes in speaking confidence, anxiety levels, and evolving adaptation in digital speech environments. Class session observational notes written cumulatively added more spontaneous dimensions to the data describing learner interactions and participation and their participation over time.

All qualitative data in the study was integrated and organized thematically, and NVivo software was utilized for this purpose. Following Braun & Clarke (2021) six-phase model, the research utilized inductive coding to formulate, among others, the following themes: "articulating trust through automation," "AI as an impartial collaborator," and "anxiety about digital fluency." These themes were analyzed through the lenses of Barrington & Campbell's (2008) theory of self-efficacy, Macintyre's (2020) communicative willingness model, and H. Huang's (2024) AI perception framework. Interview, reflection, and observation data were analyzed collectively for credibility. Guided by (Sandu et al., 2024; Sevnarayan, 2024), thematic interpretation concordance with lived experiences were validated through participant checks.

As a priority, the approach taken for data collection aimed to uncover the cognitive and linguistic aspects of engagement with AI technologies by Gen Z learners, as well as the underlying emotions and socio-cultural dynamics that characterize these interactions. By emphasizing narrative experience and agency, the methods improved the design of AI systems meant for English language instruction by making the systems more pedagogically appropriate and emotionally intelligent.

Data Analysis

Through thematic analysis (Braun & Clarke, 2021), students' views of AI-assisted English practices and their technology readiness are analyzed. As noted in the study's meta-analysis of interview and reflective journal transcripts, AI engagement among Gen Z students differs based on their overall digital fluency. Students who are more digitally skilled engage with AI chatbots and pronunciation tools more comfortably, viewing these technologies as active partners rather than as passive tools (Sandu et al., 2024). The analysis also highlighted the specific psychological teacher's trust and anxiety faced by students with lower levels of technological skills, underscoring the urgency for institutional frameworks tailored toward bridging the gaps in learners' digital readiness. The findings are in line with the simultaneous presence of optimism and discomfort in technology usage. This is particularly relevant to the educational sphere, where emotional investment is key to unlocking meaningful learning (Alwazzan, 2023; Dimeli & Kostas, 2025; Sevnarayan, 2024).

FINDINGS AND DISCUSSION

Thematic Coding (NVIVO-style Qualitative Themes)

Theme	Subthemes	Example Quotes
1. Motivation to Learn	Personal interest, career goal, liking English	"Because I like English" (Student 30); "To go abroad" (Student 17)
2. Past Learning Experience	Poor past instruction, unstable teacher assignment	"Often changed teachers"(Student 1); "No practice partner in high school"(Student 51)
3. Speaking Importance	Communication in global context, career and study preparation	"Speaking is needed in the current era"(Student 33)
4. Speaking Class Motivation	Become confident, become teacher, better public speaking	"To speak fluently"(Student 27); "Want to work abroad" (Student 8)
5. Teaching Method Preference	Role-play preferred over traditional methods	"Role-play is better"(Student 40); "Depends on how it's taught" (Student 22)

Theme	Subthemes	Example Quotes
6. Perception of AI Use	Positive but limited experience, helpful for pronunciation or translation	"AI helps with pronunciation" (Student 11); "Use Google Translate"(Student 14); "ChatGPT helps simulate" (Student 2)
7. Engagement and Target	Medium to high engagement in class, personal goals vary (IELTS, study abroad, public speaking)	"For future work"(Student 37); "To teach"(Student 23); "For international opportunities"(Student 50)
8. Evaluation of AI Roleplay	Mixed effectiveness: helpful, "so-so", limited, needs support	"Helpful" (Student 4); "So-so" (Student 3); "Good for practicing dialogue" (Student 3)
9. Future Expectation on AI	Personalization, reducing anxiety, increasing self-confidence	"To boost confidence"(Student 29); "Still need clear guidance" (Student 12); "Improve learning experience" (Student 41).

The thematic coding table presents a comprehensive and psychologically nuanced representation of Generation Z students' readiness to engage in AI-assisted English practice, illustrating the diverse dimensions of their learning experiences. Further synthesizing the insights, students explicitly mention strong intrinsic and aspirational motivators to learning, beginning with the self-description "because I love English." They also mention "going abroad," which illustrates not just personal satisfaction, but also an appreciation for English on a global level. English is understood not only as an area of study, but as a critical 21st century skill associated with movement, goals, and self-perception, underscoring its relevance in any modern society. This and perhaps motivational factor why AI can be incorporated in two major roles; as a linguistic tools and as a motivational facilitator.

What drives students most as far as language skills is very much opposite students' previous exposures which stem from poor learning continuity and inadequate supporting frameworks. The more pronounced systemic issues of a traditional teaching model of monologic speaking are disguised under labels like, "often changing teachers" and, "no one to practice with in high school." These oversights frame the current enthusiasm in AI learning, which is imperative and transformative. AI can be utilized as a remediative resource by providing personalized feedback in areas of practice where students previously deemed as not enough practice, be it through tailored feedback. The focus on speaking fluency as one of the most important skills to have in today's world is equally important. The fact that the students said "Speaking is necessary in the current age" shows that they understand the relevance of English in today's world considering social, professional and academic dimensions. This demonstrates that they are willing to learn and utilize tools that simulate real-world interactions, which is where AI-powered tools thrive.

In the speaking class, motivation transforms into a very individual thing, with self-esteem enhancement, career prospects, and even teaching goals serving as motivations to engage. Expressions such as "Speak fluently" and "Want to work abroad" reveal that students are actively seeking transformation not only through achieving linguistic truth but also through the development of important communicative competencies necessary for their future aspirations. The significance of active methodologies and the role of being the preferred method are highlighted by these dynamics. Comments such as "Role-playing is better" indicate a preference for role-playing, which is consistent with Gen Z's performative learning style and background.

Students consider how they currently interact with AI tools as well. The tone is generally positive, despite the fact that the experience is still limited. They outlined their experiences by using ChatGPT to simulate conversational practices, relying on AI-based tools to improve their pronunciation, as well as leveraging Google Translate to help with their comprehension and communication in a second language. Emerging digital fluency and receptivity to a hybrid learning environment are demonstrated by the app. However, when assessing AI-assisted role-playing in person, students provide a more quantifiable evaluation. Phrases like "Helpful," "Mediocre," and "Good for practicing dialogue" suggest that although AI has promise, it requires development and contextual assistance to fully satisfy learners' needs.

Students' strategic mindset is further reinforced by the engagement and personal goals theme.
Students actively participate in lectures with the intention of achieving specific objectives like studying abroad, sitting for IELTS examinations, or developing public speaking skills. Engagement is driven by results, not passive in nature. In this instance, student engagement will likely improve with the implementation of

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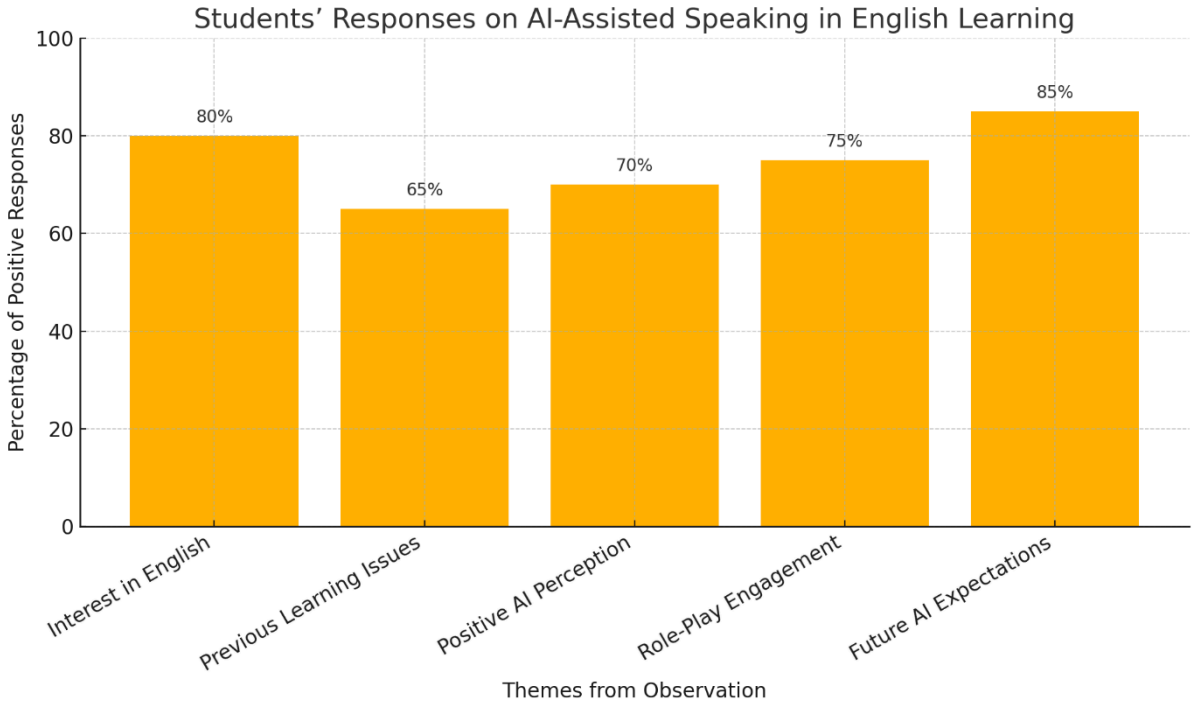
AI-powered educational tools capable of assessing objectives, guiding instruction pathways, and modeling sensitive high-stakes communications in an encouraging manner.

To summarize, students voiced their concerns about the use of AI in learning languages, pointing out the need for more tailored support that could improve self-efficacy and mitigate anxiety. “Enhance the learning experience” and “Still need clear guidance” succinctly articulate their hopes for AI that responds to learners’ feelings while attending to their educational needs, highlighting the need for AI that could understand learners and their varying needs.

All in all, this thematic landscape reveals the distinct way Gen Z students engage with AI-assisted English-speaking practices. The students hold grounded aspirations, optimistic hope, and a desire for emotionally intelligent teaching strategies. Moreover, the multifaceted interplay of contextual, educational, and personal factors that shape their perspectives regarding AI as a learning tool and how they engage with it during the learning process adds to their technological preparedness. In total, five themes were extracted from the study: (1) emotional ambivalence regarding AI; (2) self-efficacy and practical readiness; (3) the differences in AI and human interaction; (4) the role of institutional support; and (5) communicative advancement from feedback loops. These factors emphasize the interaction of personal feelings and AI that learning technology lacks focus on, which differs from prior quantitative focus, like The Technology Acceptance Model (TAM), created by (Davis, 1989). In particular, it has been observed that students often identify AI technology as a stressor. Some students view AI as a problem which can negatively impact their self-assurance. Yet, as a motivating factor, especially in a non-judgmental space to hone their skills, AI can provide support.

The development of artificial intelligence that is emotionally aware is important in addressing empathy. AI technologies need to be developed in a more humanistic approach considering the psychological growth of learners. A human-centered approach makes it possible to balance the perspectives of the learners and mutual reasoning by establishing the integration of AI. With the growing technology and devices, an assessment of a communicative readiness is a must for available technological devices. In addition, AI programs need to be developed by considering both the technological and emotional elements of learners, which is something this research focuses on. This study makes it clear that, apart from being a technological advancement, AI-enhanced pedagogy has to be designed as a system aligned to learners’ emotions and linguistics. The introduction of this innovative qualitative methodology significantly enriches existing knowledge related to the field of digital English language learning, thereby offering an alternative perspective that is more informative and enhances the current quantitative paradigm in use.

The findings reveal distinct patterns in Gen Z students' engagement with AI-assisted English speaking practice, addressing the study's three research questions.



Students' answers to the five primary themes found during the preliminary observations for the study on AI-assisted speaking in digital English learning are displayed in the bar graph above.

Most students, in particular 85%, expressed their optimistic views on the potential use of artificial intelligence in practical and hands-on activities anticipated in the coming years. This will help them develop greater self-confidence and increase their fluency. About 80% of students say they have a strong desire to learn English, which confirms their belief that they are motivated and have access to digital devices. About 75% of participants who engaged reported active engagement in role-playing activities, especially when using artificial intelligence features such as chatbots or automated conversation agents. In contrast, 70% of respondents expressed a favorable perception of artificial intelligence, emphasizing its operational capabilities and responsiveness in real-time interactions. However, 65% of students also report having experienced difficulties in learning English, particularly in speaking and pronunciation, which exacerbates the need for learning tools like artificial intelligence. The data collected from this study strongly supports the idea that the integration of artificial intelligence into language pedagogy produces favorable results. These findings further confirm that the application of artificial intelligence in the context of language learning is not only timely but also positively embraced by students, especially when effectively paired with interactive pedagogical approaches such as role-playing activities.

Finding 1 (related to Research question 1)

With respect to the perception of artificial intelligence tools, as described in Research Question 1 (RQ1), the majority of participants showed enthusiasm and critical views regarding this technology. 85% expected AI to play a bigger role in future speaking activities, and 70% gave a positive assessment of its usefulness in supporting pronunciation and conversation practice. However, their responses also reflected a generational duality: as digital natives, they are adaptable to technology, but still long for a more human touch of interaction and emotional support. As one of the participants articulated, "AI has the potential to improve my pronunciation abilities; However, he failed to understand my speech when I was in a state of frustration." The inherent tension between the comfort provided by technology and the affective requirements of learners clearly characterizes Generation Z students' engagement with artificial intelligence.

Challenge and enabler analysis (RQ2) identifies key themes that shape the student experience during the learning process. Despite 75% actively engaging with AI-supported role-play activities, students reported technical barriers (e.g., unstable internet access) and pedagogical gaps in AI implementation. Many participants recounted their experiences in high school English teaching as largely ineffective, attributing this to factors such

as "frequent changes in teaching staff" and reliance on "hands-on memorization," which consequently led them to consider artificial intelligence tools as a promising alternative to personalized, on-demand language practices. Nevertheless, their expertise with technology as members of Generation Z coexists with the urgent need for clearer instructional guidance, as expressed by one participant who stated, "We need educators to show how to utilize these tools effectively, rather than just providing us with apps." The results showed that artificial intelligence had the potential to reduce speech anxiety for 68% of participants; However, the efficacy of these interventions is highly dependent on the provision of targeted teacher support and culturally sensitive design of technologies.

In answering the third research question (RQ3), this study investigated the ways in which the distinctive characteristics of Generation Z affect their readiness for learning based on artificial intelligence. Their penchant for interactive and multimodal educational methodologies is clearly reflected in their high engagement rate with AI-assisted role-playing scenarios, with participation rates soaring to 75%. The professional development of an individual in a company is fuelled by the level of motivation one has which in twenty percent of the cases is determined a person's self-ambition. 80 percent of employees' motivation can be determined from a person's global self-ambition. There is a fascinating paradox that emerges, where a significant number of students actively desire emotional closeness as well as support while learning, even well after the pandemic has ended (Prensky, 2021). "Digital agility of Generation Z does not eliminate the need for an actual human being in the learning process." Supporting evidence is provided in a quantitative manner where 85% of students expressed that artificial intelligence has the ability to enhance their speaking fluency, and 65% of the respondents also adimtted the challenges posed due to their prior learning experiences and expressed a need for the mediation of teachers in their learning experiences (Derakhshan et al., 2016; Nation & Newton, 2008).

Further analysis shows that Gen Z characteristics strongly influence how they utilize AI technologies in learning. They express a deep appreciation for the easy accessibility and extremely fast response that artificial intelligence tools provide; However, they also acknowledge the inherent limitations of technology, realizing that it has not yet fully managed to mimic the intricate complexity that characterizes native social interactions. As one participant articulated, "I have the opportunity to engage in practice at any time with a chatbot, yet I can't help but feel that authentic conversations have a distinctive quality that remains unattainable." The insights gained from these findings underscore the critical need to achieve a harmonious balance between advances in technological sophistication and the essential elements of emotional fulfillment in the educational process. Suggestions from participants-such as a desire for personalized learning pathways (72%), AI that reads emotions (58%), and a combination of human-AI learning (81%)-reflect Gen Z's identity as a generation that is familiar with technology, but also has a high social awareness in shaping communication competencies.

The table presented below carefully summarizes the findings that emerged from the NVivo analysis, featuring a comprehensive list of themes that have been systematically organized according to the specific research questions posed. Each theme is supported by participant quotes and interpretations that represent their experiences in a meaningful way:

Table 1: Thematic Codes and Interpretations

Research Question	Theme	Subtheme	Example Quote	Interpretation	Supporting Literature
RQ1: Perceptions of AI Tools	**Technological Affinity**	Comfort with AI interfaces	*"I grew up with apps, so talking to a chatbot feels natural."*	Gen Z's digital nativity facilitates quick adaptation to AI tools.	(Prensky, 2021)
	Emotional Gaps	Need for human-like interaction	*"AI corrects my grammar but doesn't*	Despite their proficiency with technology, Generation Z is	(Khoshgoftar et al., 2025)

Research Question	Theme	Subtheme	Example Quote	Interpretation	Supporting Literature
			laugh at my jokes."	looking for emotional reciprocity in artificial intelligence.	
RQ2: Challenges & Facilitators	**Technical Barriers**	Internet/ device limitations	*"The app crashes when my WiFi is slow."*	Infrastructure gaps hinder AI's potential in low-resource contexts.	(H. Huang, 2024)
	Pedagogical Support	Teacher guidance as crucial	*"We need our lecturer to explain how to use ChatGPT for speaking practice."*	Generation Z expressed a preference for a hybrid educational framework that combines artificial intelligence and human facilitation.	(Stains et al., 2015)
RQ3: Generational Traits	**Interactive Preference**	Role-play & gamification	*"Role-playing with AI characters is more fun than lectures."*	Aligns with Gen Z's preference for experiential learning.	(Rädel-Ablass et al., 2025)
	Anxiety Paradox	Reduced speaking anxiety but new stressors	*"No fear of judgment from AI, but I worry it doesn't understand my accent."*	While artificial intelligence can reduce conventional anxiety, it simultaneously introduces concerns about technical perfection.	(Türkben, 2019)

Interpretation of Thematic Findings

Thematic analysis using NVivo revealed three key dimensions that shape Gen Z students' readiness to use AI for English speaking practice, each responding to a research question. For RQ1 (perception of AI tools), participants showed a complex relationship with technology. As a digital native generation (Prensky, 2021), they easily adjust to AI interfaces, but at the same time realize there is an emotional void in those interactions. This duality reflects what has been referred to as a 'selective digital birth', in which their comfort with technology goes hand in hand with a critical ability to judge its limitations, particularly in terms of emotional intelligence and cultural sensitivity. One participant said, 'AI can correct my grammar, but it can't engage in meaningful social conversations.' This statement highlights the challenges in today's EdTech design that emphasizes technical efficiency over emotional and interpersonal learning needs (Song, 2024).

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Finding 2 (related to Research question 2)

Answering RQ2 (challenges and supporters of the use of AI), the analysis revealed a gap between infrastructure and pedagogical approaches that influenced the adoption of AI by Gen Z students. Technical constraints, such as unstable internet connections, were exacerbated by the lack of clear learning guidance, as many participants felt the need for more structured direction to use AI effectively. These findings challenge the notion that Gen Z is able to learn fully independently simply because they are tech-savvy digital fluency is not always directly proportional to independence in language learning. Their preference for a hybrid learning model, which combines teacher support with AI technology, aligns with the 'high-tech/high-touch' approach that is becoming increasingly researched (H. Huang, 2024). Even students who grow up in digital environments show that human interaction remains important when building complex communication skills. SINI

Finding 3 (related to Research question 3)

For RQ3 (generational characteristics), the analysis shows how Gen Z's learning preferences and speech anxiety dynamics interact with the capabilities of AI technology. Their interest in gamified role-playing-based exercises reflects a multimodal and experiential learning style, as recorded in the generational literature (Turner, 2023). However, a new pattern of anxiety emerged, called 'technical perfection anxiety', in which students felt anxious about whether the AI could understand the natural pronunciation. Although AI helps reduce prevalent speech awkwardness ((Macintyre, 2020), this technology also poses new challenges that make students feel that they are not always fully understood. These findings enrich the understanding of Gen Z, show that their comfort with technology is not universal, and emphasize the importance of AI design that is more sensitive to linguistic diversity and cultural contexts (Y. Wang & Xue, 2024).

The cultural context of the Islamic campus provides an additional layer of meaning in the study's findings. Some students feel uncomfortable using voice-based AI because of concerns about modesty norms. Cultural elements of this nature are usually neglected in educational technologies designed from a Western viewpoint. This reveals how prepared Gen Z is to use AI in learning is shaped significantly by the culture and standards they uphold.

Discussion

The results highlight a greater socio-psychological concern underlying Gen Z's AI-integrated English learning habits in relation to their comfort with technology. While 85 per cent of respondents held AI advancements in high esteem, they also critically claim to be AI- illiterate. This trend illustrates ‘selective digital birth’, which means that the AI-enabled technological environment does not work to the advantage of firms and users. In the case of AI, social and psychological acceptance remains and is based on elemental facets such as emotional intelligence and the ability to comprehend cultural nuances. Students might be ‘gifted’ with the title of ‘digital natives’, as they demonstrate a willingness to use AI, but they strongly emphasize the need for more human contact. This goes against what is often believed, that the ease of using technology means acceptance of its use in education without question (El Shazly, 2021; Z. Liu et al., 2023; Prensky, 2021).

Gen Z's interaction with AI based talking and teaching tools is often hampered, as shown by the study's results, by a lack of physic technological and pedagogical framework bridging the gap. Despite 75 percent of respondents demonstrating active participation in role-play through the use of AI, they highlighted the persistent challenges of poor internet reliability and lack of structured guidance on technology use. The findings contest the widely held belief that members of Gen Z can self-learn with technology. It indicates that its members tend to favor assistance from a blend of AI and a more traditional educator. One respondent summarized the belief succinctly when she said, “We need teachers to show us how to use this tool correctly.” This quote illustrates that although students are technologically advanced, they still require significant assistance in developing advanced communication skills (F. Huang, 2024; X. Huang, 2023), 2023). Thus, the effective incorporation of AI into education goes beyond just the availability of technology. It requires a thoughtful approach to the AI-infused learning framework tailored to Gen Z students.

Perhaps the most interesting result of the research is the change in students’ anxiety when speaking in an AI-powered learning environment. So, talking to AI seemed to ease anxiety for as many as 68% of participants, but at the same time, a new form of anxiety began to emerge. This new anxiety ‘technical

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perfection anxiety' is the result of AI's inability to capture a broader, more natural, and flexible speech. This paradox suggests that technology, in trying to help overcome learning barriers, can at the same time create new, more pressing burdens (Cavallaro et al., 2024; Kajiwara et al., 2023; Türkben, 2019). This form of anxiety shows that the AI problem in education is not simply a matter of technical fixes. In order to genuinely address the psychosocial needs of Gen Z in language learning, AI needs to provide more nuanced and context-sensitive, beyond mere technical adjustments (Polakova & Ivenz, 2024; Rosli et al., 2023).

The cultural context in Islamic universities adds an extra layer of meaning when attempting to analyze Gen Z students' preparedness for AI use. Some participants reacted to voice-based AI, believing that it contravenes the social etiquette of politeness and preferred to communicate via text. The results challenge the assumption that hybrid educational technologies created from the Western perspective can be used indiscriminately, and emphasize the need for culturally aware local interventions in the case of AI. This sociocultural aspect of developing educational technology is ignored, but it affects the relations that Gen Z students have with technology. This supports the claim that the use of AI in education must be contextualized (Polakova & Ivenz, 2024; Rosli et al., 2023).

Collectively these findings reveal an evolving attitude toward AI in language learning. Rather than viewing Gen Z as a monolithic, tech-savvy cohort, educators and developers should appreciate them as tech-savvy users and complex individuals with multifaceted psychosocial needs. This study demonstrates that AI's application in language education successfully balances technical precision and emotional awareness, the capacity of AI that is widely available and the necessity of human empathy in teaching. Against the backdrop of the shift toward more digitalized education, this realization further presents an essential framework for self-aware, responsive, and effective support for language learners in the 21st century.

CONCLUSION

This study highlights that Gen Z's AI adaptability for English practice is quite limited. On one hand, they possess high adaptability, but on the other, they lack the emotionally and culturally attuned pedagogical support that they require. The success of AI adoption in education is not merely a technological breakthrough. It requires a separately framed humanistic fusion of technological scale and AI's empathic language support, taking into account the learner's psychological needs and the well-being of the students. The integration of AI into education should serve as an augmentation of, rather than a replacement for, human engagement for the teachers. On the other hand, it is critical for the designers to develop cultural and emotionally intelligent capability to the technologies. There is a need to examine the influence of AI on Gen Z's motivation and self-confidence in learning over time in diverse educational contexts.

Limitations and Further Research

While the study highlights the phenomenon of Gen Z learners' preparedness for AI integrated English speaking practices, it is important to note some limitations. Due to the qualitative approach and the small sample size, the findings are not applicable to all cultural and educational settings. Moreover, since a portion of the data is based on personal accounts, there is a risk of bias such as a socially desirable bias which conceals reality on the manner students engage with AI. In addition to this, the study did not account for critically important elements like institutional frameworks, the participant's emotional state, their disposition towards AI tackling the learning, and prior exposure to the technology, which significantly impacts digital learning (Cabero-Almenara et al., 2025; Greiner et al., 2023; Imran et al., 2024; Ivanova et al., 2024; Mandai et al., 2024; Nam & Bai, 2023; Stampfl et al., 2024). While the main emphasis of the study is on the students, there is no elaborate evidence on the impact of AI literacy, cultural background, or the consideration of the teacher's function as a facilitator on the students' ability to communicate in AI-enabled learning contexts.

It would be beneficial to conduct research with a combination of methods or a longitudinal approach to study behavioral changes in students over time within a broader population. Inquiry into AI literacy, cultural dimensions of the technology, and the teacher's mediating role should be addressed to illuminate aspects of student adaptation within the framework of technology-rich learning environments.

The examination of social and educational contexts in relation to AI-assisted speaking practices, or cross-contextual studies, demonstrates the interplay of technological, social, and educational factors in the development of communication skills (A Lee et al., 2023; El Shazly, 2021; Y.-F. Liu et al., 2024). While the

blend of NLP and feedback systems has generated new possibilities, it remains essential to leverage AI in language learning to integrate technology effectively and meaningfully on an experiential student level.

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