Korean language educators' perspectives on AI chatbots for Korean language learning: A study of Sejong AI Tutor, Langotalk, and Eggbun

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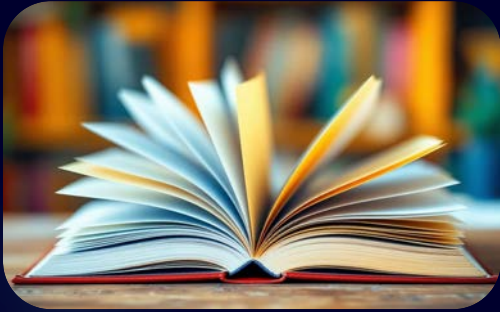
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Overview

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Study Design: Purpose & Methodology

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Introduction - The Rise of AI in Language Education

- The integration of artificial intelligence (AI) technologies—particularly AI-powered chatbots—into language education has accelerated rapidly in recent years, driven by advances in natural language processing (NLP) and machine learning.

- **Benefits for Learners:**

  - As automated conversational agents, chatbots offer learners personalized, interactive, and immediate feedback.

  - This enriches language learning experiences and fosters greater learner autonomy (Winkler & Söllner, 2018; Pedro et al., 2019; Thomas, 2020; Zhang & Aslan, 2021; Lee et al., 2022).

- **Challenges:**

  - The educational application of AI chatbots introduces complex pedagogical and ethical challenges.

  - Concerns include linguistic accuracy, cultural appropriateness, data privacy, and bias in AI-generated content (Pedro et al., 2019; Lee et al., 2022).

Research Background - Existing Gaps

- **Focus on EFL:** Hobert & Meyer von Wolff, 2019; Hwang & Chang, 2023.

- **Korean Language Underexplored:** The application of these technologies in Korean language education remains significantly underexplored.

  - This is a critical oversight given the unique linguistic and cultural intricacies of Korean (e.g., elaborate honorific system, context-dependent expressions, pragmatically complex structures) that challenge current AI chatbot design.

- **Emphasis on Student Outcomes:** Much prior work has focused on student outcomes (e.g., motivation, performance gains) (Antony & Ramnath 2023; Hasan et al 2023; Ryu, 2024).

- **Educator Perspectives Under-Examined:** Few studies have examined the equally vital perspectives of educators, whose acceptance and pedagogical decisions are key to technology adoption (Chuah & Kabilan, 2020; Belda-Medina & Calvo-Ferrer, 2022; Chocarro et al., 2023).

Research Background - Importance of Educator Perspectives

- This study centers on the perspectives of Korean language instructors to address these gaps.

- **Why Educator Views are Essential:**

  - **Pedagogical Expertise:** Teachers possess expert knowledge regarding whether chatbot interactions meaningfully support language acquisition.

  - **Ethical Oversight:** They play a significant role in identifying problematic outputs from AI, such as inappropriate use of honorifics or cultural misrepresentations.

  - **Practical Insights:** Their classroom experience provides invaluable insight into the effective and authentic integration of AI tools into learning environments.

Theoretical Framework - CHISM

- **Chatbot-Human Interaction Satisfaction Model (CHISM)** (Belda-Medina & Calvo-Ferrer, 2022).

- **Purpose:** To assess user satisfaction and interaction quality with chatbots.

- **Key Dimensions Evaluated in this Study:**

  - Semantic coherent behavior

  - Sentence structure and complexity

  - Voice recognition & synthesis technologies

  - Lexical richness & Grammatical accuracy

  - Error detection and correction

  - Natural conversational interaction

  - Design, Interface, Engagement, Enjoyment

- Used to evaluate each of the three chatbots post-interaction.

Theoretical Framework - TAM2

- **Extended Technology Acceptance Model (TAM2)** (Venkatesh & Davis, 2000).

- **Purpose:** To understand factors influencing technology acceptance and adoption by users.

- **Key Constructs Measured in this Study**

  - Perceived Ease of Use (PEU)

  - Perceived Usefulness (PU)

  - Attitude Toward Use (ATT)

  - Behavioral Intention (BI) to adopt chatbots

  - Self-Efficacy (SE)

  - Personal Innovativeness (PI)

- Used in a final survey after all chatbot interactions.

Purpose & Approach

- **Purpose:** To investigate Korean language instructors' evaluations of three distinct chatbot platforms **(Sejong AI Tutor, Langotalk, Eggbun).**

- **Focus:** Examine teachers' perceptions of the chatbots' linguistic accuracy, cultural responsiveness, engagement quality, and classroom applicability.

- **Goal:** Identify current opportunities and challenges, and offer evidence-based recommendations for chatbot design and integration in Korean language education.

- **Method:** Mixed-methods (quantitative survey data & qualitative reflection reports).

Participant Profile

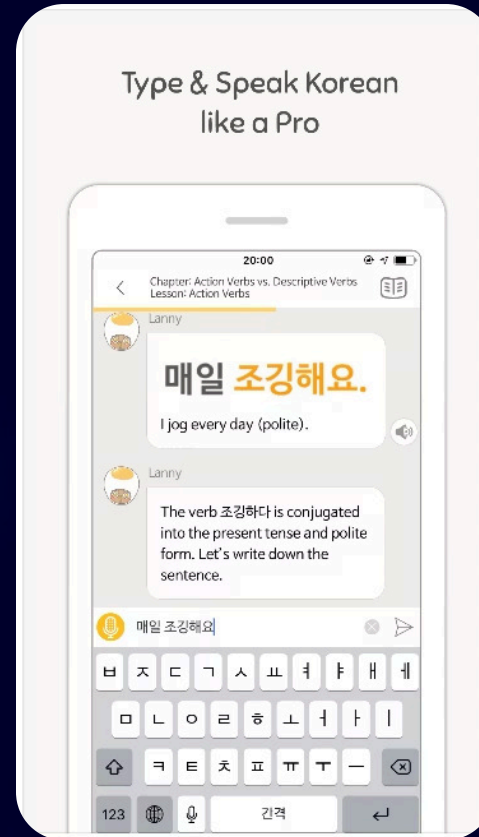- **Total Participants:** 30 Korean Language Instructors in North America.

| Category	Details
Current Teaching Location	North America (USA: 20, Canada: 10)
Educational Settings	Universities (27), Community Schools (2), DLIFLC (1)
Gender	Female (20), Male (10)
Age Distribution	30s (2), 40s (14), 50s (12), 60+ (2)
Teaching Experience	Average: 11.72 years (Range: 1–30 years)
Recruitment	AATK conference presentation (June 2024), professional referrals
Compensation	$120 for interacting with 3 chatbots & submitting reflection reports (AKS funding)

AI Chatbots

Sejong AI Tutor	Eggbun	Langotalk
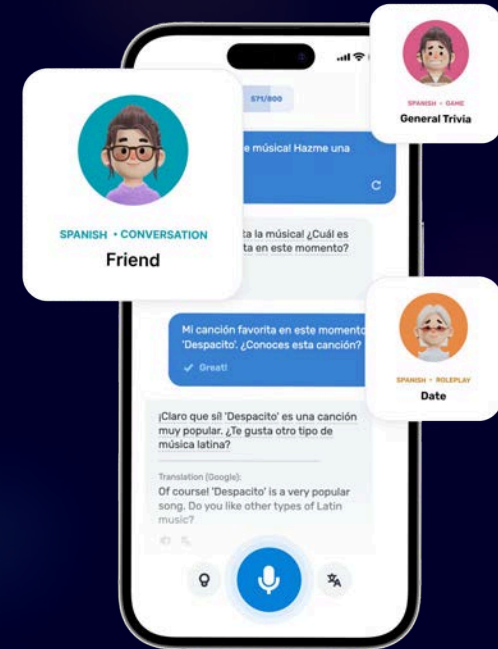
AI Chatbots Explored - A Comparison

Feature	Sejong AI Tutor	Langotalk	Eggbun
Developer/Focus	King Sejong Institute Foundation; specializes in Korean language & culture	Multilingual AI; focus on real-world conversational practice	Eggbun Education; Focus exclusively on Korean; interactive & visual with "Lanny" tutor
Language(s)	Korean-only	Over 20 languages, including Korean	Korean, Japanese, Chinese
Cost	Free of charge	Monthly ($19.99) or yearly ($79.99) subscription	Monthly ($3.99) or yearly subscription ($29.99)
Key Characteristics	Systematic lessons, guided dialogues, pronunciation, cultural content	Adaptive AI, contextually appropriate responses, spontaneous interaction	550+ lessons (beginner-advanced), native speaker audio, cultural notes, visual aids, survival Korean
Primary Approach	Structured curriculum	Flexible, real-world conversational practice	Gamified, multimedia-rich, self-paced learning

Study Procedure

Phase 1: Pre-Interaction Survey

Complete pre-survey on technology familiarity and AI experience

Phase 2: Interaction with Chatbots

Engage with three chatbots (Sejong, Langotalk, Eggbun) and submit reflection reports

- Engage with Sejong AI Tutor (1 hour) -> Record in Reflection Report -> Post-Survey 1 (CHISM)

- Engage with Langotalk (1 hour) -> Record in Reflection Report -> Post-Survey 2 (CHISM)

- Engage with Eggbun (1 hour) -> Record in Reflection Report -> Post-Survey 3 (CHISM)

Phase 3: Post-Interaction Survey & Reflection Submission

Final survey: Adapted TAM 2 (perceived ease of use, usefulness, and acceptability)

Submit their reflection reports on Google form

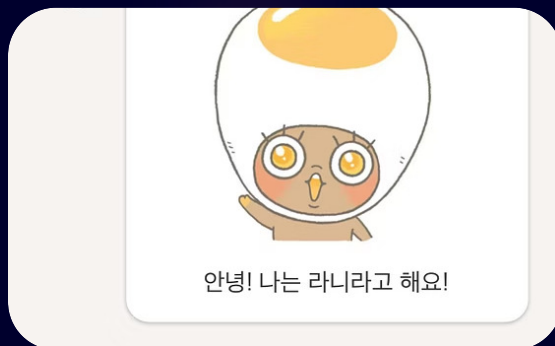# Key Findings 1 - Chatbot Satisfaction (CHISM Model)

Langotalk: Highest Satisfaction

Top ratings in semantic coherence (M=4.1), voice recognition (M=4.2), and natural conversation (M=4.0).
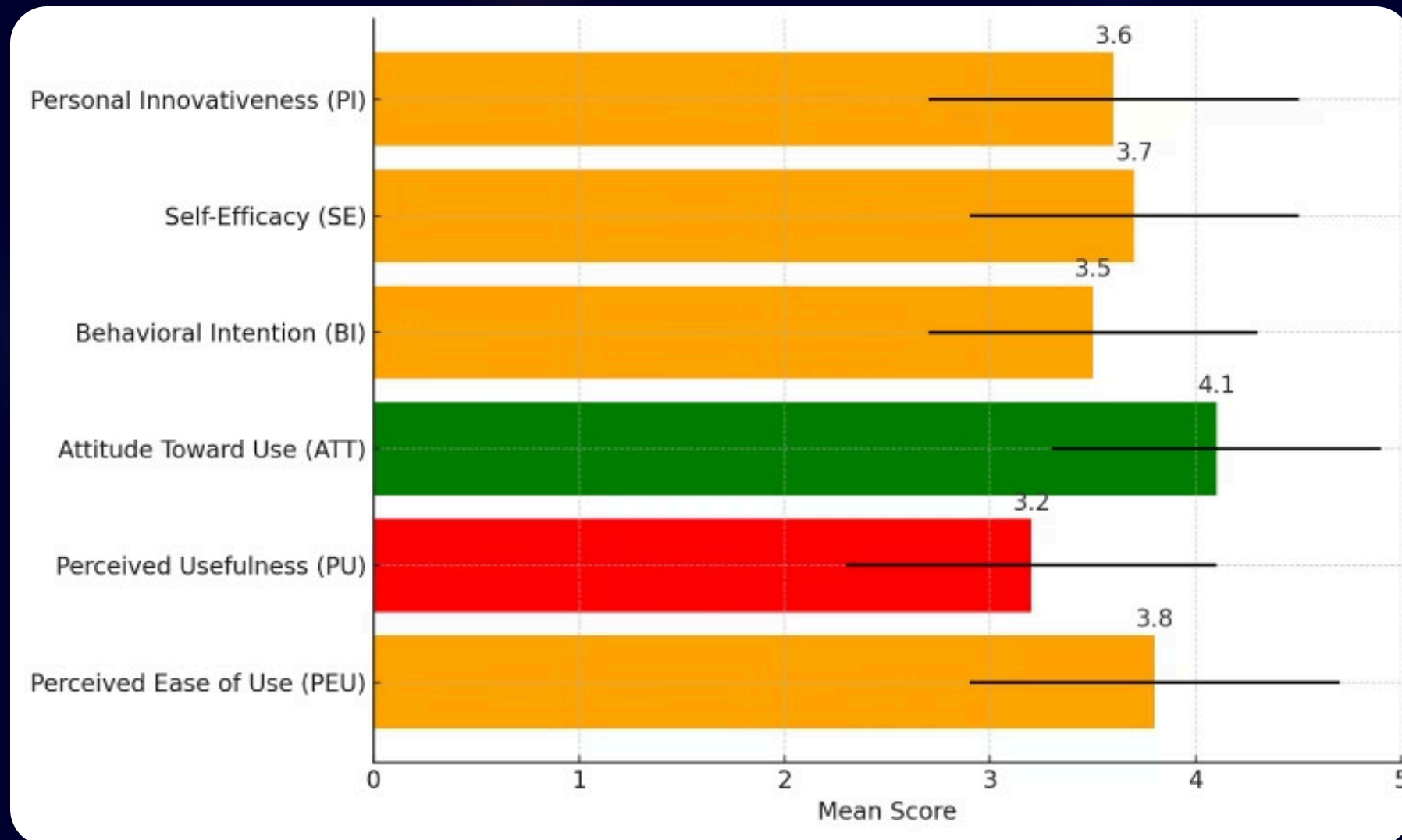

Sejong AI Tutor: Moderate Satisfaction

Good for beginner structured learning with lexical richness (M=3.4) and grammatical accuracy (M=3.5), but low on error detection (M=2.8).

Eggbun: Mixed Evaluations

Strength in grammatical accuracy (M=3.5); lower in voice recognition (M=2.8) and conversational authenticity.

Key Findings 2 - Technology Acceptance (TAM2 Model)

- **Perceived Ease of Use (PEU):** Generally positive (M=3.8). **Langotalk & Eggbun seen as more intuitive.**

- **Perceived Usefulness (PU):** Varied. **Langotalk for conversation** (M=4.2); **Sejong AI/Eggbun for grammar/culture reinforcement.** **Chatbots not seen as strongly accelerating learning (M=3.2) or strongly contributing to instructional innovation (M=3.3).**

- **Attitude Toward Use (ATT):** Positive (M=4.1); **enjoyment reported** (M=4.3), but tempered by practical concerns.

- **Behavioral Intention (BI) to Adopt:** Moderate (M=3.5); **need for support/training**.

- **Self-Efficacy (SE): Confident in use (M=3.7), but many requested training/guidelines** (M=3.4).

- **Personal Innovativeness (PI): Moderate openness to new tech (M=3.6)**, few identified as early adopters (M=3.2).
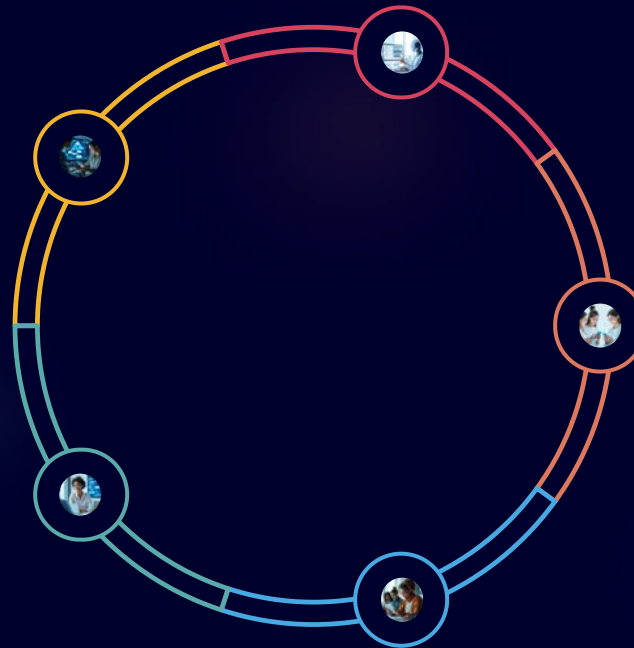
Key Findings 3: Educators' Voices

Supplementary Tools

Chatbots support but do not replace primary instruction.

Training & Curriculum Alignment

Educators seek guidance and curriculum integration support.

Accuracy & Trust

Concerns over chatbot flexibility and reliability.

Motivation & Engagement

Chatbots help increase learner interest and participation.

Equity & Access

Focus on usability and fair access for all learners.

Key Findings 3 - Educators' Voices

- **Theme 1: Chatbots as Supplementary Tools, Not Primary Instructors**.

  - Participants consistently emphasized that AI chatbots should serve as complementary tools rather than replacements for classroom instruction.

  - Many observed that **AI can't yet model cultural nuance or adapt to spontaneous learner needs,** though they acknowledged chatbots' value for providing additional speaking and listening practice outside of class".

  - Quote 1: "**Chatbots are like training wheels** — **they help learners keep practicing when a human partner isn't available**".

Key Findings 3 - Educators' Voices

- **Theme 2: Concerns About Accuracy, Flexibility, and Trust**.
    - Educators voiced strong concerns about **over-reliance on chatbots, particularly when incorrect feedback or unnatural phrasing goes unchallenged.**
    - They stressed the need for AI systems to **a**ccommodate the acceptable variation in Korean expressions, especially regarding honorifics, politeness levels, and flexible word orders.
    - Quote 2: "When the chatbot doesn't accept correct answers, learners start doubting themselves — or the system".

Key Findings 3 - Educators' Voices: Motivation and Engagement.

- **Theme 3: Motivation and Engagement**.

  - Despite noted limitations, educators observed that **chatbot use can enhance student motivation, particularly among shy learners, those studying independently, or students seeking additional practice**.

  - Gamified elements such as points, avatars, and immediate feedback were cited as effective.

  - Quote 3: Effective for **"reducing anxiety and making speaking less intimidatin**g".

  - Quote 4: **"Students enjoy these tools — it's interactive, it feels modern, and it can break the monotony of classroom drills"**.

Key Findings 3 - Educators' Voices

- **Theme 4: Equity, Access, and Usability**.

    - Some participants raised concerns about **accessibility and usability, noting that certain features were locked behind paywalls, not optimized for non-native speakers, or complicated by confusing onboarding processes.**

    - Technical challenges—**such as app crashes or slow response times**—were also identified as barriers to seamless classroom integration.

    - Quote 5: **"Even I had trouble installing and logging in — I can't expect all students to navigate that alone".**

Key Findings 3 - Educators' Voices

- **Theme 5: Educator Needs: Training and Curriculum Alignment**.

  - Finally, educators underscored the importance of professional development and curriculum integration support.

  - **While many expressed openness to adopting chatbot technologies, they also reported uncertainty about how to align these tools with structured learning outcomes.**

  - Quote 6: **"If developers want teachers to use these tools, they need to provide training and lesson ideas — not just an app download".**

Implications for Korean Language Instructors

1. Leverage as Pedagogical Supplements, Not Replacements.

- Educators overwhelmingly emphasized that AI chatbots should **serve as supplementary learning tools** rather than core instructional platforms.

- Instructors are encouraged to integrate these tools to reinforce classroom instruction—**particularly for out-of-class speaking and listening practice.**

- **Chatbots can enhance student autonomy, reduce language anxiety, and offer opportunities for repetition, experimentation, and confidence building.**

- *Example Task:* Assign chatbot-based tasks like "ordering food at a restaurant" or "expressing agreement politely," followed by classroom review sessions to discuss vocabulary variations and evaluate appropriateness.

Implications for Korean Language Instructors

2. **Align Chatbot Content with Korean Linguistic Features**.

- Address that chatbots often fail to accurately capture nuances like honorifics, context-sensitive expressions, and formality shifts.

- Educators should critically evaluate chatbot output and provide supplementary explanations highlighting acceptable variation in real-world Korean usage.

- *Example Task:* "Find and Fix" exercises where students identify and revise chatbot errors based on appropriate formality levels.

Implications for Korean Language Instructors

3. Differentiate Chatbot Use by Learner Level.

- **Sejong AI Tutor**: Effective for **beginners** requiring structured input.

- **Langotalk:** Excelled with **intermediate learners** seeking fluid, adaptive dialogue.

- **Eggbun:** Useful as a **grammar and vocabulary review tool**.

- Strategically match platforms to learner levels and instructional goals.

Implications for Korean Language Instructors

4. Address Technical and Access Barriers.

- Concerns about technical usability, access costs, and onboarding complexity.

- Successful integration depends on reliability, affordability, intuitive design, and clear support.

- Consider usability trials and provide students with structured guides.

Implications for Korean Language Instructors

5. Advocate for/Seek Educator Training & Curriculum Support.

- Many educators indicated a need for professional development and curriculum-aligned resources.

- Institutions and developers should offer targeted training, teaching templates, and alignment frameworks.

- Workshops co-developed by educators and designers could provide scenario-based guidance.

Conclusion - The Path Forward

- **Current State:** AI chatbots (esp. Langotalk) offer promising avenues for learner engagement and extended speaking practice, but face critical challenges related to accuracy, adaptability, and accessibility.

- **Educator Stance:** Cautiously optimistic; recognize potential for promoting practice and supporting learner autonomy, but emphasize need for institutional support, educator training, and greater transparency in chatbot design.

- **Developer Collaboration:** Developers must collaborate closely with teachers to refine chatbots for Korean-specific contexts, enhancing honorific accuracy, error correction capabilities, and pragmatic flexibility.

- **The Goal:** AI chatbots can play a productive role when positioned not as replacements for human interaction, but as tools to expand access, promote practice, and support diverse learner needs.

Exciting Next Steps - Further Research & Call for Participants!

- **Building on this study,** new research will explore Korean native speakers' perceptions of AI-generated voices
  - **Study 1: How do Korean native speakers perceive AI-generated voices from different platforms** (ElevenLabs vs. Naver Clover)?
  - **Study 2: How do Korean native speakers perceive differences between authentic human voices and AI-generated voices in Korean** (Text-to-Speech(TTS) application vs. professional Korean voice actors)?
- **Why this is important:** Understanding perceptual factors of AI voices can lead to more natural and effective language learning tools.
- **Progress:** IRB approval has been received for these new studies! Currently seeking funding.
- **Get Involved!**
  - If you are a Korean native speaker and interested in participating in this new voice perception research, please sign up using this form: **[QR cord will be added here]**
  - Your insights will be invaluable! I will contact interested individuals with more details.

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Acknowledgements

I gratefully acknowledge the contributions of:

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