

**Evaluating AI Tools in English Language Learning for Tourism: Insights
from Applied Linguistics**

**I Nengah Laba
Ni Putu Chrisma Dewi**

Universitas Dhyana Pura

laba@undhirabali.ac.id

chrisma@undhirabali.ac.id

ABSTRACT

This study examines the usefulness of AI technologies in addressing the linguistic and pragmatic abilities required for English Language Teaching (ELT) in the tourism industry. Using a qualitative content analysis approach, the study assesses important aspects, strengths and weaknesses of widely used AI language learning Tools, Duolingo and ELSA Speak. The results show that although these tools are excellent at offering accessibility, adaptive learning pathways, and individualized feedback, they frequently lack industry-specific information, cultural sensitivity, and collaborative learning opportunities—all of which are vital for the tourism industry. These two widely used artificial intelligence (AI) technologies for learning foreign languages in Indonesia only concentrate on grammatical correctness; they fall short in addressing contextualized conversation and intercultural communication in tourism contexts. By bridging the gap between educational ideas and technology, this research advances applied linguistics by providing useful suggestions for educators, curriculum developers, and AI tool creators. Future research should focus on integrating intercultural communication training into AI tools, evaluating their long-term impact on tourism learners' professional performance and exploring ethical considerations in advancing applied linguistics tailored to professional domains like tourism.

Keywords: AI tools, language learning, tourism

I. Introduction

The tourism industry is one of the fastest-growing global sectors, necessitating proficient communication in English as a lingua franca. With the rise of artificial intelligence (AI), tools leveraging AI technology have become integral to English language teaching (ELT), particularly in specialized fields such as tourism. AI tools promise personalized learning, instant feedback, and adaptive pedagogical approaches, potentially addressing the nuanced linguistic needs of tourism professionals (cf. Fischer and Fuch, 2022; Godwin-Jones, 2019; Laba, 2024).

In the evolving landscape of education, the integration of Artificial Intelligence (AI) tools into language learning and teaching, particularly in the context of English for specific purposes, has gained significant attention. The tourism industry, with its global scope, requires a specialized approach to language

teaching, where English plays a crucial role in facilitating communication across diverse cultures and settings (Chapelle & Sauro, 2017). However, traditional language teaching methods often face limitations in meeting the dynamic needs of this industry.

Applied linguistics offers a robust framework for analyzing how AI tools support language learning by examining language structures, discourse, and sociolinguistic contexts (Ellis, 2015; Laba, Dewi, and Aqila, 2024). However, despite the potential of AI in ELT for tourism, limited research explores how effectively these tools address specific language competencies required in the industry, such as cultural sensitivity, industry-specific jargon, and pragmatic language use.

Applied linguistics, as a discipline, provides the theoretical foundation for understanding how language is learned, used, and taught, particularly in professional domains like tourism (Woo and Choi, 2021; Laba and Dewi, 2023). In recent years, AI technologies have been integrated into English language teaching to provide personalized, efficient, and scalable learning solutions. These tools, including AI-driven chatbots, voice assistants, and adaptive learning platforms, have the potential to revolutionize how English is taught for the tourism sector. However, there is limited research on the effectiveness and content-specific applications of these AI tools within this niche.

Studies have shown that AI tools like Duolingo and Babbel are effective in reinforcing grammar and vocabulary (see Loewen et al., 2019). Speech recognition features in tools such as ELSA Speak enhance pronunciation and fluency, making them particularly relevant for tourism professionals who require clear and accurate communication (Chiu et al., 2021). However, these tools often prioritize linguistic competence at the expense of sociolinguistic and pragmatic skills.

Sociolinguistic competence, including cultural appropriateness and situational adaptability, is critical in the tourism sector. Byram's (1997) model of intercultural communicative competence highlights the need for language tools to incorporate cultural contexts. While AI tools like Learn English for Tourism include role-playing for real-world scenarios, they frequently lack depth in cultural sensitivity and nuanced language use (Zhao et al., 2022).

Pragmatic competence, or the ability to use language functionally, is often underrepresented in AI tools. Taguchi (2015) argues that pragmatic skill development requires context-specific tasks and authentic materials. Few AI tools effectively replicate the complexities of professional tourism scenarios, such as handling complaints diplomatically or navigating cultural misunderstandings (Richards, 2015). From applied linguistics perspective, there are challenges and opportunities when looking at the AI tools for language learning. These include ethical AI and bias as mentioned by Luckin et al. (2016) who stated that caution against inherent biases in AI language models can lead to culturally inappropriate outputs. Zhao et al. (2022) argue that AI tools may increase access to language learning in a one-size-fits-all approach, overlooking individual learner needs in tourism-specific contexts. Chen et al (2020) state that integrating augmented reality (AR) with AI tools holds promise for immersive language learning, simulating real-world tourism environments.

Previous research has explored the impact of AI-based language learning tools on various target language skill areas and their effectiveness in improving language proficiency. Applied linguistics, as a discipline, provides the theoretical foundation for understanding how language is learned, used, and taught, particularly in professional domains like tourism. In recent years, AI technologies have been integrated into English language teaching (ELT) to provide personalized, efficient, and scalable learning solutions. These tools, including AI-driven chatbots, voice assistants, and adaptive learning platforms, have the potential to revolutionize how English is taught for the tourism sector. However, there is limited research on the effectiveness and content-specific applications of these AI tools within this niche.

This study aims to conduct a content analysis of AI tools, Duolingo and ELSA Speak used in English language learning for the tourism industry from an applied linguistics perspective. This explores how AI tools align with applied linguistic theories and the specific language needs of tourism professionals. The primary objective of this study is to evaluate the effectiveness of AI tools in addressing the linguistic and pragmatic competencies required for teaching English in the tourism industry.

By analyzing the features, strengths, and limitations of these tools, the study aims to provide insights into their alignment with applied linguistics on pedagogical principles such as English communicative competence and Task-Based Language Teaching (TBLT). It also seeks to identify areas for improvement, including the integration of industry-specific content, cultural sensitivity, and collaborative learning opportunities. This study contributes to the field by providing a content analysis of existing Duolingo and ELSA Speak used in teaching English for tourism. It aims to uncover the strengths, weaknesses, and pedagogical alignment of these tools with the demands of the tourism industry.

The impact of this study lies in its ability to bridge gaps between technology, language teaching, and the practical needs of the tourism sector. For educators and curriculum developers, the findings can offer guidance on how to effectively incorporate AI tools into lesson plans to enhance learner outcomes. For AI tool developers, the study provides actionable recommendations for designing more comprehensive and contextually relevant applications. Furthermore, the research contributes to applied linguistics by emphasizing the importance of integrating theoretical frameworks into technological innovations, ultimately advancing the field of language teaching in professional domains like tourism. Research questions in this study are formulated into 1) How do AI tools address the linguistic aspects required for English language teaching in the tourism industry? and 2) What are the strengths and limitations of current AI tools in providing contextualized and culturally sensitive learning experiences for tourism professionals?

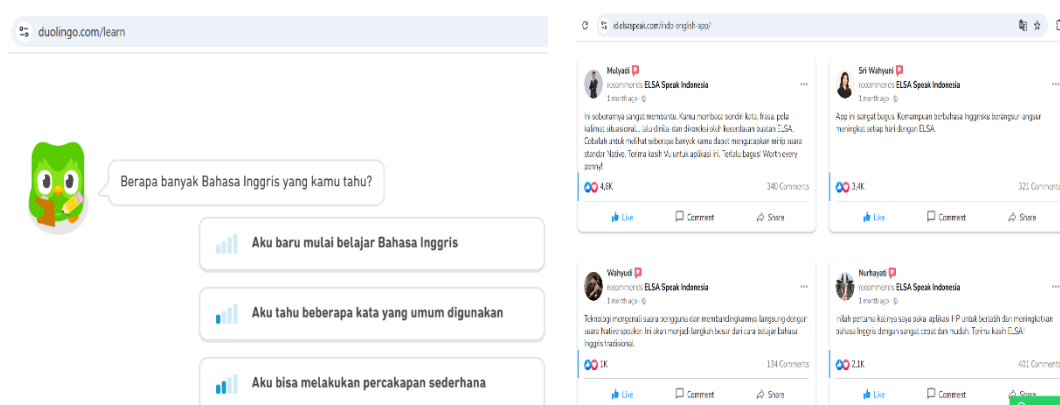
II. Method

The research method applied for this study is qualitative content analysis proposed by Krippendorff (2018). This method systematically examines the features and linguistic aspects addressed by AI tools to understand their alignment with the needs of English Language Teaching (ELT) in the tourism industry. The emphasis of the

study is the content analysis of exploring textual and digital data which is conducted from selected two AI tools. They are Duolingo and ELSA Speak which are commonly in Indonesia. The analysis focuses on their content include strengths and limitations. A qualitative content analysis approach is used to analyze the data, with a focus on identifying key themes and aligning them with applied linguistics theories. The steps in the analysis process include initial familiarization and coding the data alignment with applied linguistics theories.

III. Findings and Discussion

This study employs a triangulated approach, combining a qualitative content analysis of AI tools and explores the pedagogical linguistic and practical dimensions of AI tools in English language teaching (ELT) for tourism. It not only evaluates the tools' alignment with applied linguistics perspective but also examines their impact on language teaching and pragmatic needs used in tourism industry. The intersection of artificial intelligence (AI) and language teaching has sparked transformative changes in the way English is taught, particularly in specialized fields such as tourism. Duolingo and ELSA Speak are two commonly used AI language learning and teaching tools in Indonesia.



Duolingo and ELSA Speak Website

Source: <https://www.duolingo.com/learn> and <https://id.elsaspeak.com/indo-english-app/>

The tourism industry requires not only basic communicative English but also domain-specific language skills, such as hospitality jargon, cross-cultural pragmatics, and interpersonal skills (Richards, 2015). AI-driven tools such as chatbots, virtual assistants, and adaptive learning platforms are increasingly being adopted to meet these demands, offering scalability and personalization unmatched by traditional classroom methods.

From an applied linguistics perspective, AI tools hold the potential to enhance communicative competence by fostering linguistic, sociolinguistic, and pragmatic skills through interactive and contextualized learning environments (Hubbard, 2020; Laba and Dewi, 2023). Despite these promises, there is limited empirical research evaluating the alignment of these tools with the actual linguistic needs of tourism professionals and the pedagogical principles of task-based and

communicative language teaching. The content analysis focus on how AI tools incorporate interactive elements and the analysis is identified into three primary features shared across the selected two selected AI tools, Duolingo and ELSA Speak. These three features are;

1. Speech Recognition and Feedback

Duolingo and ELSA Speak utilize advanced AI-driven speech recognition technologies to evaluate pronunciation accuracy and provide real-time feedback. These features align with the oral communication needs of tourism professionals, such as delivering clear directions or answering inquiries. ELSA Speak offered detailed phonetic analysis, highlighting areas for improvement, which is particularly effective for learners working on accents or fluency that needed when speaking with native speakers of English in tourism industry.

2. Adaptive Learning Paths

Adaptive algorithms, as seen Duolingo and ELSA Speak, adjust lesson difficulty and content based on user performance and progress. This personalized approach helps learners focus on their weaknesses and improving engagement and retention. English teachers can use it for learners who struggling with sentence structures. Language learners receive tailored exercises to reinforce grammatical accuracy and it is critical for the tourism industry's formal communication standards.

3. Industry-Specific Content

Integrated modules of English for Tourism (LET) on hospitality vocabulary and cultural scenarios, such as welcoming guests can help language learners in providing recommendations and explaining local customs.

The highlighted several strengths of AI tools for English language teaching in tourism include; 1) personalization. It is tailored lessons to individual learner needs and fostering efficient learning. Duolingo and ELSA Speak provide customized grammar, vocabulary, or pronunciation exercises and accelerating language acquisition for diverse proficiency levels; 2) accessibility. It is affordable, widely available, and easy to use on mobile and web platforms. This is reducing barriers to language learning and teaching. This accessibility is especially beneficial for tourism professionals in remote locations or those with limited access to formal training; and 3) immediate feedback.

It is a speech recognition enabled learners to refine their pronunciation and grammatical accuracy promptly. ELSA Speak's detailed phonetic analysis helped users correct mispronunciations crucial for effective communication in tourism (cf. Chiu et al., 2021). Although they have advantages, the analysis highlighted significant shortcomings in the efficacy of AI tools for teaching English in tourism-related settings include:

1. Limited Contextualized Learning

Duolingo and ELSA Speak as used for language learning AI tools lacked the capacity to provide authentic, context-specific learning experiences. Essential scenarios such as negotiating with clients, resolving complaints, or conducting professional business conversations were either minimally addressed or entirely absent. The integration of role-playing tasks, where

learners could engage in real-world tourism-related interactions, remains underdeveloped.

2. Inadequate Cultural Sensitivity

Cultural nuances, which are crucial for effective intercultural communication, were often overlooked in the design of AI tools. For example, tools failed to incorporate culturally appropriate responses to diverse tourist behaviors, thereby limiting the development of learners' sociolinguistic competence (Taguchi, 2015). This deficiency hinders learners' ability to navigate intercultural interactions effectively, a key skill in the tourism industry.

3. Lack of Collaborative Learning Opportunities

Duolingo and ELSA Speak predominantly focused on individualized learning experiences and lacked functionalities that promote group interaction or collaborative tasks. Collaborative learning, including peer discussions and role-plays, is essential for fostering pragmatic and sociolinguistic skills (Dillenbourg, 2016). Without such features, learners are unable to fully develop the interactive competencies required for tourism-specific communication.

Addressing these limitations through enhanced design and integration of contextual, cultural, and collaborative elements can significantly improve the applicability and effectiveness of Duolingo and ELSA Speak in English language teaching for the tourism industry.

This analysis allows for a thorough understanding of how AI tools function in the specific context of English language learning for tourism, providing insights into their strengths and weaknesses in meeting the needs of learners in this industry. It is found out that AI tools have demonstrated significant advantages in addressing some challenges in ELT for tourism.

This finding is in line with the previous research conducted by Zhao et al., 2022 who stated AI tools leverage adaptive algorithms to cater to learners' individual needs, such as improving specific skills like pronunciation or vocabulary retention. This is particularly useful for tourism professionals who have diverse linguistic proficiency levels and limited time for structured learning. These align with TBLT principles, enhancing learners' ability to transfer language skills to professional settings.

This study has also identified critical gaps in terms of Lack of Cultural Sensitivity. Duolingo and ELSA Speak often fail to provide context-specific responses to culturally sensitive situations, such as handling customer complaints diplomatically. The findings suggest the following implications AI tools can supplement traditional teaching methods by providing practice opportunities outside the classroom. However, language teachers must integrate these tools with pedagogically sound tasks that emphasize interaction and cultural awareness; there is a need for curricula that guide learners in using AI tools effectively, ensuring a balance between linguistic accuracy and communicative fluency; and Tool creators should incorporate more authentic tourism scenarios, cultural sensitivity training, and collaborative learning features to address the current gaps. By identifying both

strengths, weakness and the gaps between them, this study lays the groundwork for future research and innovation in AI-driven ELT for the tourism industry.

Alignment with Applied Linguistics

The evaluation of AI tools reveals a dual dynamic: partial alignment with applied linguistics principles and significant gaps that limit pedagogical effectiveness for English Language Teaching (ELT) in tourism contexts. They are;

1. **Partial Adherence to the Communicative Competence Framework**
Duolingo and ELSA Speak as AI language learning and teaching tools effectively target linguistic competence covering areas such as grammar, vocabulary, and pronunciation, but they often neglect sociolinguistic and pragmatic competencies. These omissions are critical, particularly in tourism, where cultural appropriateness and contextual communication play a pivotal role. Canale and Swain's (1980) framework on communicative competence underscores the necessity of addressing all dimensions of language use, including discourse, sociocultural norms, and interactional strategies. However, current Duolingo and ELSA Speak largely fail to integrate these aspects comprehensively.
2. **Limited Implementation of Task-Based Language Teaching (TBLT)**
Despite claims of utilizing task-based approaches, Duolingo and ELSA Speak focus predominantly on rote learning and decontextualized exercises. This undermines the principles of TBLT, which emphasize the completion of meaningful and real-world tasks. Effective task-based activities for tourism professionals should include simulations of workplace scenarios, such as creating itineraries, handling guest inquiries, and role-playing as tour guides (Ellis, 2015). The absence of such authentic tasks restricts language learners from acquiring the practical skills required in professional tourism environments.
3. **Bridging Pedagogical Gaps through Applied Linguistics**
Insights from applied linguistics offer a roadmap for improving Duolingo and ELSA Speak to foster holistic language development. From the perspective of applied linguistics in social context, sociocultural highlights the importance of social interaction in language learning, suggesting that collaborative and context-rich activities should be prioritized. Additionally, politeness theory (Brown & Levinson, 1987) provides a foundation for designing features that address culturally appropriate responses and conversational norms to enhance learners' pragmatic competence.

By aligning Duolingo and ELSA Speak more closely with applied linguistics principles, this contributes to the discourse on integrating technology into language learning and teaching. It is found out that bridging the gap between theory and practice enable Duolingo and ELSA Speak enhance not only linguistic accuracy but also prepare learners for the nuanced communicative demands of globalized industries like tourism.

The findings emphasize the need for AI tools to incorporate comprehensive tourism-specific content, including authentic dialogues and real-world scenarios;

enhance cultural and pragmatic teaching elements; and foster collaborative learning environments through AI-powered simulations. While tools partially adhered to communicative competence and TBLT principles, they often focused more on linguistic accuracy than holistic language use. Integrating applied linguistics insights can enhance AI tools' effectiveness, bridging current pedagogical gaps. Furthermore, the findings call for future research into the potential of emerging technologies, such as virtual reality (VR) and augmented reality (AR), to deliver immersive, task-based learning experiences that address both linguistic and sociocultural needs.

IV. Conclusion

This study provides a comprehensive analysis of the use of Duolingo and ELSA Speak in teaching English for tourism, revealing both their strengths and weaknesses. While Duolingo and ELSA Speak excel in personalization, accessibility, and feedback, their effectiveness is constrained by a lack of cultural sensitivity, contextualized learning, and collaborative opportunities. The findings underscore the need for a closer alignment between AI tool design and applied linguistics principles to enhance their pedagogical value, particularly in term of language learning and teaching. Future research should focus on integrating intercultural communication training into AI tools, evaluating their long-term impact on learners' professional performance, and exploring ethical considerations in AI-driven language learning and should explore learners' experiences with AI-driven tourism language training and longitudinal impacts of AI tools on professional performance in the tourism industry.

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