Integrating chatbots in language education

EXECUTIVE SUMMARY

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Introduction

The Learning Story 'Integrating chatbots in language education' provides valuable insights into the transformative potential of chatbots in language education and offers practical strategies for leveraging AI to support dynamic, inclusive learning environments. By creatively integrating AI into teaching methodologies, educators can empower students with tools that enrich language learning and foster critical reflection.

Since the fall of 2023, teachers in Oslo have been integrating chatbots within the KI Osloskolen digital ecosystem to enhance various educational practices, particularly in English as a Second Language (ESL) instruction.

This Learning Story (No 8) focus on the innovative work of Sara and Morten, two language teachers who utilise chatbots to foster communication, provide personalised feedback, and promote cultural awareness in language learning in their classes in lower secondary school, with students aged 14-16.

Chatbots as dialogue partners

One of the key strategies Sara and Morten use involves employing chatbots as dialogue partners to assist students who might be reluctant to communicate orally. Their customised chatbots offer tailored interactions and explanations that help students bridge language barriers, especially when English is their third language after Norwegian and their native tongue (for instance Polish).

This approach not only enhances students' confidence but also enriches their language skills by providing a virtual 'learning partner' that adapts to individual language levels. By addressing common grammar mistakes through personalised exercises, the chatbots facilitate active engagement and motivation, fostering a more inclusive and effective classroom environment.

From grammar and spelling to learning about and with chatbots

The shift from traditional grammar instruction to engaging students with natural language usage has been pivotal in Sara and Morten's classroom. By moving beyond rigid grammar exercises, students learn to reflect critically on language structure and AI-generated feedback, thus promoting independent learning.

This transition is reinforced by creating specific pre-prompts for the chatbots in the ecosystem provided by the municipality (see case study 4, *Dealing with the unforeseen*), which guide students through nuanced tasks, encouraging them to analyse feedback actively and refine their language skills accordingly. Teachers are also encouraged to show students how to adjust responses and request simplification, which mirrors strategic teaching practices and improves understanding.

A prominent challenge with AI integration is preventing students from mindlessly copying AI-generated text. Such practices of cheating hinder the students in learning and is a challenge for many teachers. By clearly defining the chatbots' roles and incorporating them into thoughtful assignments, Sara and Morten ensure students engage more deeply with the language learning process, turning potential limitations of generative AI into opportunities for critical discourse.

Promoting cultural awareness

Understanding cultural biases inherent in AI models like GPT 4.0 mini allows Sara and Morten to utilise these biases as an affordance in their educational tools. By discussing and challenging the U.S.-centric perspectives often present in chatbots, students engage critically with cultural nuances, thereby deepening their ESL learning. Special assignments, such as the 'election-chatbot', involve comparing political viewpoints, fostering reflection on diverse global perspectives. This approach aligns with curriculum goals and encourages students to critically analyse AI-generated content, understanding its cultural context and limitations.

Implications and guidelines

Sara and Morten's experiences with the ecosystem of chatbots in Oslo highlight the nuanced role of chatbots in language education (L2), emphasising personalised interaction and immediate feedback. While students value the instant responses chatbots provide, teacher guidance remains crucial for meaningful learning. The following recommendations aim to support language teachers who have opportunities to customise generative AI in their classrooms.

- **Foster pair work with dialogue chatbots**. Encourage students to collaborate using chatbots as dialogue partners, especially for those hesitant to speak.
- **Design reflective assignments**. Tailor tasks that prompt students to evaluate AI-generated feedback, avoiding direct copying and enhancing language skills.
- **Customise chatbot with pre-prompts**. Match chatbot responses to students' proficiency levels and teach them how to refine prompts during interactions for better understanding.
- **Leverage cultural biases in AI**. Use inherent biases as learning tools to develop critical thinking about varying perspectives.
- **Prepare students for chatbot interactions**. Instruct students to frame questions and anticipate responses to enrich their engagement.
- **Discuss AI bias and nuances**. Enhance students' language comprehension by discussing cultural and contextual biases in AI outputs.
- **Align AI tools with curriculum goals**. Ensure chatbot tasks are structured to meet educational and cultural objectives, providing relevant learning experiences.

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