

Developing an AI Reflection Bot for Internships at Amsterdam University College

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Introduction

This study explores the use of an AI-driven reflection bot to enhance the depth and structure of bachelor students' reflective practice during internships, as part of an Educational Design Research cycle.

Specifically, to help students on demand to:

- Navigate and receive explanations on complex course manuals and guidelines
- Get coached on reflective writing

Corollary: alleviate teachers.

Literature Review

Reflection is a cornerstone of experiential learning (Boud & Walker, 1998; Hatton & Smith, 1995; Ryan & Ryan, 2013). Digital tools, particularly AI-driven chatbots, offer potential for supporting structured reflection and learning, but empirical research on their effectiveness in higher education settings remains limited (Alemdag, 2023; Deng et al., 2024; Gökçearsan et al., 2024; Labadze et al., 2023; McGrath et al., 2024; Wu & Yu, 2024; Zhang et al., 2024).

Materials & Methods

Building on the design-oriented paradigm of EDR, this study contributes to bridging the research-to-practice gap by developing and empirically testing an AI reflection bot within real-world internship settings (Plomp, 2013). The study is positioned within the prototyping phase of an iterative research process, where initial findings will inform subsequent refinement cycles (McKenney & Reeves, 2018).

Setting: Amsterdam University College

Materials: UvA AI Chat, and within that a persona:



Prototyping cycle: semi-structured focus user groups with students, 2 sessions of 3 hours with 4-6 students.

Findings

With current developments making a **tailored-AI bot** seems **easy**, but it's **hard** to make it an educational success.

Students and teachers do see the **benefit from a bound-tailored and data safe AI Bot**, but it is hard to make something that is better than ChatGPT.

It is a **struggle** to make a **dual-purpose AI Bot**: on one hand we needed a flawless matter-of-fact bot to answer questions about the course guidelines, but on the other hand we needed a more flexible 'creative' bot for guidance on reflective writing. At this stage we are not combining it successfully.

We suggest a quick-and-dirty **check-list** for making an AI Bot

- Define the Pedagogical Role: *Is the bot a tutor, coach, explainer, or assistant?* Clarify its function in learning—not just in answering.
- Identify Student Needs: *What pain points or learning objectives does it address?* (e.g. confusion about deadlines, tricky concepts, lack of feedback)
- Curate Focused Knowledge: *Less is more*. Include only high-quality, structured materials (syllabus, key readings, assignment rubrics).
- Choose the Right AI Setup: *Custom GPT? Chatbot in LMS?* Match platform to purpose, and ensure compliance with data privacy norms.
- Design for Interaction, Not Just Information: *How should it respond?* Set tone (e.g. supportive, Socratic), guardrails (e.g. no grading, and fallbacks (e.g. "Ask your tutor").
- Prototype with Real Student Input: *Students shape the bot's relevance*. Run mini-tests, gather misfire examples, iterate quickly.
 - Embed Meta-Learning: *Use the bot to teach critical AI literacy*. Flag its limits, suggest verification steps, encourage reflective use.
- Maintain as a Living Tool: *Keep it fresh*. Update with new FAQs, evolving assignments, and emerging misconceptions.

Conclusions and Implications

Don't, like myself, rush into implementing an AI bot into you course or program. Take considerable time for prototyping the bot, and keep in mind what the educational pay-off is. AI is relatively new and available, but it does not make it always educationally useful.