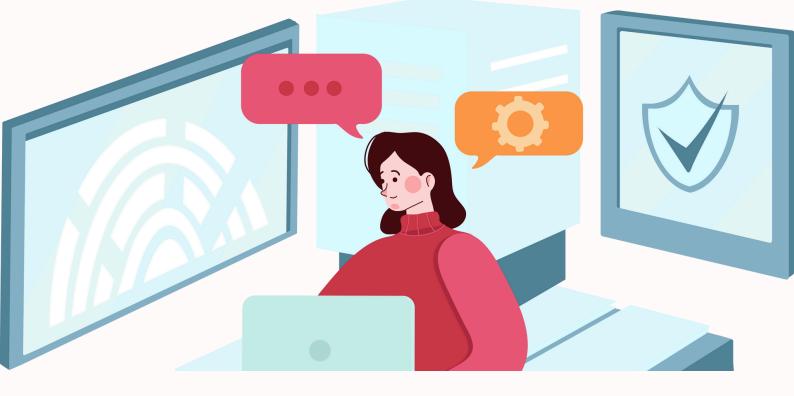# EMPOWERAI MANUAL

SHARING BEST PRACTICES OF CO–DESIGNING TEACHER TRAINING MATERIAL FOR INTEGRATION OF GENAI IN TEACHING PRACTICES

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PURPOSE

This manual outlines best practices for developing and implementing a teacher training program tailored to academic staff in the fields of social sciences and humanities across the Nordic-Baltic region. It has been developed within the framework of the Nordplus project "Empowering Social Sciences Educators on the Use of Artificial Intelligence in the Classroom" (Project ID: NPHE-2024/10453).

The manual is intended for both teaching and non-teaching university staff who are interested in organizing and delivering similar teacher training initiatives at their respective institutions. It provides a detailed account of the program development process as well as the key outcomes of the EmpowerAI project.

INTRODUCTION

Artificial Intelligence (AI) is transforming the field of education by enhancing learning processes through personalized algorithms. These tools provide educators with valuable insights into student engagement, academic progress, and overall well-being.

However, the integration of AI in education also presents a range of challenges. These extend beyond policy debates and regulatory concerns, encompassing critical issues such as data privacy breaches and the ethical use of AI in research and assessment. A recent survey conducted by Malmström et al. (2023) on students' attitudes toward AI revealed that nearly all respondents were familiar with ChatGPT, and a majority (56%) viewed the use of AI tools in education positively.

The topic of AI remains widely debated across the education sector. In the Nordic-Baltic context, higher education institutions (HEIs) have adopted diverse approaches to integrating these tools within their systems. Despite ongoing discourse, a common framework and adequate training opportunities for teaching staff are often lacking - particularly in the fields of social sciences and the arts.

This gap is especially significant given the profound impact of generative AI technologies on disciplines that rely heavily on text and image-based assessments. The capabilities of these tools raise important questions about the future relevance and integrity of traditional assessment methods.

In response to this challenge, the collaboration among Nordic-Baltic universities through the EmpowerAI project offers an opportunity to address the training deficit. By developing a comprehensive teacher training program, the project aims to support academic staff in adapting their teaching and assessment practices to the evolving landscape of AI-enhanced education.

EMPOWREAI OBJECTIVES

1

To address the challenges of integrating generative AI into teaching practices - and to equip educators in the fields of social sciences and humanities with the skills necessary for the purposeful, ethical, and critical use of AI in the learning process - the EmpowerAI network was established.

2

The network brings together four forward-thinking and innovation-oriented universities in the Nordic-Baltic region:
- University of Tartu
- Kaunas University of Technology
- University of Turku
- Tampere University

3

The primary aim of the EmpowerAI network is to strengthen the digital competencies of educators in the social sciences and arts, with a particular focus on the responsible and ethical use of AI tools in academic settings.

4

To achieve this goal, the project implemented the following activities:
- Conducting co-design workshops with academic staff
- Piloting training materials at partner universities
- Evaluating outcomes and gathering feedback
- Producing an assessment report with actionable recommendations for higher education institutions (HEIs) across the region.

CO-DESIGN METHODOLOGY (I)

At the heart of the EmpowerAI project's methodology lies the co-design process.

In the context of higher education, co-design refers to a collaborative, participatory approach to developing academic programs, curricula, policies, learning environments, or student services. It involves students, faculty, staff, and, at times, external stakeholders as equal partners in the design process. Rather than relying solely on academic staff or administrators to make decisions, co-design invites those directly affected - students, educators, and community members - to meaningfully contribute to shaping the educational experience.

In the EmpowerAI project, the co-design process unfolded in two key phases, involving multiple stakeholder groups:

Phase one: co-design workshops

Phase two: piloting

co-design workshops were conducted with the educational developers from the EmpowerAI consortium. During these sessions, participants collaboratively envisioned and structured the training program, sharing ideas and strategies to ensure its relevance and effectiveness.

the program was piloted across partner universities, during which feedback was collected from participating teaching staff. Their insights played a crucial role in refining the training materials and ensuring the program met the practical needs of educators.

CO-DESIGN METHODOLOGY (II)

The co-design approach was chosen for several reasons:

1 **Increased ownership and engagement**: involving staff members from the outset enhanced their sense of ownership over the program (Bovill et al., 2011). EmpowerAI coordinators were able to develop training that directly addressed the needs of their teaching staff, thereby increasing motivation, commitment, and emotional investment in the learning experience.

2 **Pedagogical innovation**: co-design fosters creative thinking and can lead to the development of novel teaching strategies and tools that accommodate diverse learning styles and needs.

3 **Trust and collaboration**: the process promotes transparency and mutual respect, strengthening trust and building a shared sense of responsibility among all staff involved in the training initiative.

PROJECT TIMELINE AND PROCESS OVERVIEW (I)

The project had a duration of 16 months and was carried out in several key stages.

M1-M4

M5-M9

OFFICIAL KICK-OFF

The University of Tartu served as the lead institution responsible for overall project management, including progress monitoring, quality assurance, and financial oversight.

The project officially commenced with a virtual kick-off meeting in late spring 2024. During this meeting, the partners discussed the structure and objectives of the co-design workshops, as well as the timeline for piloting the training program.

The University of Tartu also developed the necessary project templates and created the visual identity for the EmpowerAI project, which were then distributed to all consortium partners.

In the summer of 2024, the recruitment process for the first phase of the co-design workshops was launched within the EmpowerAI consortium.

PROJECT TIMELINE AND PROCESS OVERVIEW (II)

M5-M9

CO-DESIGN WORKSHOPS (I)

The next phase of the project involved organizing two co-design workshops held in Tartu and Kaunas. These two-day workshops were implemented collaboratively by the EmpowerAI consortium.

The first co-design workshop took place in autumn 2024 in Tartu. The primary participants were educational technologists, instructional designers, and academic developers from the partner universities. The purpose of the workshop was to collaboratively discuss the overall structure of the training program, including the layout of the modules and the topics to be covered in the teacher training.

Each partner institution was represented by at least two participants. During the workshop, the participants agreed to develop a collection of practical case studies demonstrating the use of generative AI (GenAI) in assessment practices. These case studies are intended to offer concrete examples that educators can easily adapt and apply in their own teaching contexts. It was decided that all case studies would be compiled into a guide and made publicly available via the EmpowerAI website, serving as a practical resource for higher education teaching staff across the Nordic-Baltic region.

PROJECT TIMELINE AND PROCESS OVERVIEW (III)

M5-M9

CO-DESIGN WORKSHOPS (II)

In addition, the main outcomes of the first co-design workshop included the development of a draft training syllabus, the generation of ideas for AI-related training content, the division of responsibilities among the consortium partners, and the establishment of a timeline for the preparation of training materials.

The second co-design workshop took place in Kaunas at the beginning of 2025. Participants from the earlier session in Tartu reconvened in person to review the practical case studies collected across the EmpowerAI consortium. Each partner institution presented examples illustrating the use of AI in their respective educational contexts. During the workshop, participants agreed on the final format of the case study guide to be published on the EmpowerAI website. They also refined the descriptions of the individual case studies and discussed the structure and implementation plan for the piloting phase of the training program.

PROJECT TIMELINE AND PROCESS OVERVIEW (IV)

M10-M14

M5-M9

PILOTING (I)

Each partner institution presented the collected case studies to their local academic communities and tested the clarity, relevance, and feasibility of the materials. The primary objective of the piloting phase was to evaluate the training resources developed during the co-design workshops and to gather feedback from teaching staff on the usability and effectiveness of the case study guide published on the EmpowerAI website.

The training was specifically targeted at teaching staff in the fields of social sciences and the arts. At least 15 participants from each institution took part in the program. Following the completion of the piloting phase, participants were encouraged to provide feedback on the program's relevance and applicability within their own teaching practices.

The session began with a brief introduction to the EmpowerAI project (5 minutes), outlining its objectives, activities, and overarching goals. This was followed by a short demonstration of the EmpowerAI website (5 minutes), highlighting its structure and available resources.

PROJECT TIMELINE AND PROCESS OVERVIEW (V)

M10-M14

PILOTING (II)

M5-M9

The core component of the session focused on the practical case studies (approximately 55 minutes). This segment was delivered using a modified jigsaw discussion format. Participants were divided into eight small groups, with each group assigned one case study to analyze. After a 5-minute orientation, where the task and expectations were explained, each group had 20 minutes to review their assigned case, discuss key points, and prepare a brief explanation for the larger group.

Each group then presented their case study to the rest of the participants (24–25 minutes total), with approximately three minutes allocated per group. Presentations could be either visual or oral. Following these presentations, 5 to 10 minuteswere dedicated to questions and group discussion. At the conclusion of this segment, participants were asked to select one case study they were interested in potentially applying in their own teaching. A sign-up sheet was provided, listing case study titles and allowing participants to indicate their interest. This sheet was later used to form new discussion groups. If more than four participants selected the same case, they were divided into sub-groups to maintain effective group sizes.

PROJECT TIMELINE AND PROCESS OVERVIEW (VI)

M10-M14

M5-M9

PILOTING (III)

After a short break (10–15 minutes), new groups were formed based on the sign-up sheet. In these smaller groups (maximum four participants), attendees were invited to share their perspectives on why they selected the case and to reflect on possible challenges or barriers to implementing it in their own teaching contexts (20 minutes).

Following these discussions, each group briefly reported their main insights and reflections to the larger group (10 minutes). The session concluded with a feedback collection activity (10 minutes), during which participants were asked to complete a short evaluation form assessing the clarity, relevance, and usability of the EmpowerAI guidelines and resources available on the project website.

PROJECT TIMELINE AND PROCESS OVERVIEW (VII)

M15-M18

M15-M9

FINAL EVENT

During the final stage of the project, feedback collected from the piloting sessions was carefully evaluated, and necessary adjustments were made to the EmpowerAI Guide. These revisions included clarifications on the ethical use of AI in teaching contexts, detailed explanations of the rationale behind the selection of specific AI tools, and the addition of a glossary of key terms along with examples of prompts to support educators in practical implementation.

In addition, the consortium organized a final dissemination event in Tartu, held in a hybrid format and livestreamed to ensure broader accessibility. The purpose of this event was to present the project's outcomes to the academic community and to raise awareness about best practices in the integration of AI in higher education teaching.

The event featured an opening statement, a concise presentation of the project's key results, and a panel involving representatives from each partner institution, as well as participating teaching staff. Each institution was represented by at least one speaker, ensuring a diversity of perspectives and reflections on the project's impact and future implications for AI in education.

EMPOWERAI GUIDE

One of the key outputs of the EmpowerAI project was the collection of practical case studies illustrating how AI tools can be integrated into teaching practices across the EmpowerAI consortium. This guide is specifically designed for academic staff in the fields of social sciences and humanities who are interested in exploring the purposeful, ethical, transparent, and critical use of AI in higher education.

The guide brings together hands-on examples, recommendations, and practical tips for incorporating AI to enhance teaching and learning activities.

The guide includes the following sections:

1 Introduction

2 Definition of Artificial Intelligence

3 Glossary of Terms

4 Ethical Considerations in the Use of AI

5 Tips for Writing Effective Prompts

6 Practical Case Studies

Each case study includes:
- a general description of the context in which AI was used in the study process,
- a breakdown of the implementation stages,
- the advantages observed for both learners and teaching staff, and
- key takeaways and recommendations for educators.

For full descriptions and downloadable materials related to each case study, please visit the EmpowerAI consortium website:
https://sisu.ut.ee/empowerai/guide/

LESSONS LEARNED

1 The application of a structured co-design methodology played a critical role in helping the consortium identify the most appropriate and context-sensitive approach for developing the training program. By involving key staff members - particularly those directly responsible for the integration of AI and familiar with the needs of teaching staff - the consortium ensured that the design process remained both relevant and grounded in institutional realities.

2 Feedback gathered during the piloting sessions proved highly valuable in refining the EmpowerAI Guide. It allowed the consortium to identify and address potential gaps or misconceptions in the training materials, ultimately enhancing the guide's clarity, usability, and practical relevance for academic staff.

3 One of the key challenges encountered during the project was determining the most effective format for training teaching staff. Given the abundance of existing information on the use of AI in education, the consortium recognized the importance of offering added value. This led to the strategic decision to focus on collecting and presenting concrete case studies that had already been tested and implemented in local contexts. This approach added a unique dimension to the guide and also ensured that the content was highly relatable and applicable within the Nordic-Baltic higher education environment.

4 Looking ahead, it is essential that the collection and documentation of new case studies continue beyond the lifespan of the project. As the field of AI continues to evolve at a rapid pace, ongoing updates and integration of emerging knowledge will be crucial to maintaining the relevance and usefulness of the EmpowerAI Guide.

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