

# Participant Information and Consent

## *Multilingual Fairness Study in LLM-Supported Generative AI Learning*

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### 1. Researchers and Contact Information

If you have questions about this study, your rights, or the handling of your data, please contact:

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### 2. Purpose of the Study

This study investigates how the language used to interact with a Large Language Model (LLM) influences learning outcomes and user experience in a short Generative AI course.

All participants receive the same learning content (slides and transcript in English). The experimental condition is the language in which the AI tutor responds. The study includes six language conditions: English, German, Dutch, Turkish, Albanian, and Hindi.

The AI tutor is powered by a commercial LLM service (Google Gemini). Responses are enforced to the assigned language using system prompts and automated language checks.

### 3. What Participation Involves

If you agree to participate, you will complete the following steps:

- A short background survey (language skills, prior experience with Generative AI, and basic demographics).
- A guided learning session using the platform and the AI tutor (you may ask questions and request slide-based explanations).
- A short knowledge test about Generative AI.
- A user experience questionnaire (UEQ) and optional open feedback.

The total duration is approximately 90 minutes (depending on your pace).

## **4. Voluntary Participation and Withdrawal**

Participation is voluntary. You may stop at any time without giving a reason and without negative consequences. If you withdraw, the researcher will exclude your data from analysis where feasible, depending on the stage of the study and the degree of anonymization.

## **5. What Data Will Be Collected**

During the study, we may collect and process the following data:

### **5.1 Background survey (profile)**

- Native language (based on your assigned language credential).
- Self-rated proficiency in English and in your native language.
- Familiarity with generative AI tools and prior usage frequency.
- Self-rated prior knowledge of Generative AI concepts.
- Whether you have taken a course or formal training in AI or machine learning.
- Age, gender, current level of study, and field of study.
- Preferred language when learning new course content.

### **5.2 Learning session data**

- A pseudonymous session ID assigned by the system.
- The assigned language condition.
- Your questions/prompts to the AI tutor and the AI tutor's responses.
- Interaction counts (e.g., slide explanations vs. manual chat) and timestamps.
- Technical metadata (page durations, error codes, and automated language-detection checks).

### **5.3 Tests and questionnaires**

- Your answers and score on the Generative AI knowledge test.
- Your responses to the UEQ and optional free-text comments.

### **5.4 Technical presence information**

- A pseudonymous identifier, current page, and time of last activity (used only for concurrency management and detecting abandoned sessions).

The study does not require sensitive personal information (e.g., health data, political opinions, or religious beliefs). Please do not enter such information into the chat.

## **6. Data Storage, Security, and Retention**

Your data are stored under a pseudonymous code (session ID). Your real name is not stored together with the study data. Access to the data is restricted to the research team.

Data may be stored on secure university systems and on a secure cloud service (Supabase) with restricted access for research data management.

Data will be kept for up to 5 years after the end of the study, and then deleted or further anonymized.

## **7. Data Protection and Your Rights (GDPR)**

The processing of personal data is carried out for scientific research in higher education. Depending on institutional policy, the legal basis may be a task in the public interest (GDPR Article 6(1)(e)) or legitimate interests (GDPR Article 6(1)(f)).

You have rights under the GDPR, including the right to:

- request information about how your data are processed;
- access your data and request correction where appropriate;
- request restriction of processing or object to processing in certain cases.

Because this is scientific research, some rights may be limited if applying them would make the research impossible or seriously impair it (for example, if the data have already been fully pseudonymized and analysed).

## **8. Risks and Benefits**

This study involves minimal risk. Possible inconveniences include time investment and mild stress during the learning session or test.

Potential benefits include learning about Generative AI and contributing to research on fairer multilingual AI-supported learning.

## **9. Reuse of Pseudonymized Data**

Pseudonymized data may be reused for related scientific research on AI in education or multilingual learning, and for teaching purposes using anonymized examples. Any reuse will follow data-protection law and institutional policies.

## **10. Consent**

By continuing in the platform and selecting the consent checkbox, you confirm that:

- You have read and understood this document and had the opportunity to ask questions.
- You understand what participation involves and that participation is voluntary.
- You understand which data will be collected, how they will be stored, and how they will be used for research.
- You understand that your data are processed under a pseudonymous session ID and you will not be personally identifiable in publications.
- You understand that you can withdraw at any time without negative consequences.