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Report on trends in policies and practices on the use of LLM and generative AI in the partnership First Report

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[1] Public- fully open (automatically posted online on the Project Results platforms)

Executive Summary

This report provides a comprehensive analysis of the current trends, policies, and practices related to the use of Large Language Models (LLMs) and Generative AI in higher education across the partner institutions involved in the ADMIT project. The findings are based on qualitative and quantitative data collected from key stakeholders, including students, teachers, IT/support staff, and administrators. The study reveals significant variability in awareness, application, and institutional strategies for leveraging AI in education.

At the individual level, awareness of AI technologies varies widely among students, teachers, and IT/support staff. Teachers and students primarily rely on self-directed learning, engaging with online resources and experimenting with tools like ChatGPT. IT/support staff, often responsible for piloting technical projects, demonstrate slightly higher familiarity. However, the absence of structured training or institutional support leaves knowledge inconsistent across individuals. AI is predominantly used experimentally by individuals. Students employ it for brainstorming, refining academic writing, and generating ideas. Teachers use it for research, creating instructional content, quizzes, and assessments. IT/support staff explore its use for troubleshooting and piloting small-scale educational tools. These applications indicate that AI adoption remains in an exploratory phase at the individual level. AI offers opportunities to enhance productivity, reduce repetitive tasks, and provide personalized learning experiences. However, individuals express concerns about ethical dilemmas, over-reliance, and the potential erosion of critical thinking skills. For IT/support staff, data privacy and security are prominent challenges that complicate adoption and scalability.

Awareness at the institutional level is fragmented, often driven by specific departments or proactive faculty members. Students are less familiar with institutional policies and practices compared to teachers, IT/support staff, and administrators. While some universities host informal workshops and discussions, most lack cohesive policies to promote awareness and encourage widespread adoption of AI. This inconsistency highlights the need for structured institutional strategies. AI applications at the institutional level are primarily limited to pilot projects or niche use cases, such as AI-powered chatbots for student support, Moodle plug-ins for teaching, and automated grading systems. While these efforts demonstrate the potential of AI, financial, technical, and organizational barriers hinder their scalability across institutions. Institutions see the potential for AI to transform teaching, learning, and administrative functions. However, challenges include staff resistance to adopting new technologies, ethical concerns around AI usage, and limited resources. Data privacy and equitable access to AI tools are additional hurdles that institutions must address.

National policies often reflect a general awareness of AI's transformative potential but lack specificity in addressing educational needs. Institutions frequently cite the absence of actionable, education-specific guidelines as a significant barrier to aligning with national strategies. National-level support for AI remains underdeveloped, focusing on ethical considerations and data security rather than practical implementation. While some pilot projects receive backing, institutions are often left to navigate AI integration independently. National policies could foster equitable access, standardize best practices, and create

collaborative opportunities among institutions. However, insufficient funding, inconsistent guidelines, and inadequate infrastructure remain critical challenges at the national level.

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1. Introduction

The integration of large language models (LLMs) and generative artificial intelligence (AI) into higher education is reshaping learning activities, course structures, and institutional leadership. As universities navigate this rapidly evolving landscape, they are developing diverse policies and practices that reflect both the opportunities and challenges presented by these technologies. This report captures these developments summarizing trends in the use of LLMs and generative AI in educational contexts, focusing on their implications for learning activities, course design, and institutional governance. These trends have been collected in the HEIs part of the ADMIT Project.

This report provides an annual overview of policies and practices related to the use (LLMs) and generative AI in learning activities, courses, and leadership contexts. It includes an analysis of emerging opportunities and challenges while tracking the evolution of these tools over time. To support this effort, data has been gathered through online questionnaires and semi-structured interviews with diverse stakeholders, including learners, teachers, IT staff, and institutional leaders. In this context, this report offers a snapshot of policies and practices surrounding LLMs and generative AI within the participating organizations.

1.1. Aim of the report

The main aim of this report is to map the ***awareness***, ***challenges*** and ***opportunities*** of policies and practices among students, teachers, IT support/staff and administrative staff in the universities participating in the project, specifically in relation to generative AI and LLMs such as ChatGPT. In this context, the report addressed the following research questions.

1) To what extent are the four groups of academic users ***aware*** of individual, institutional and national policies and practices regarding the use of generative AI in ADMIT partnership?

2) For what specific educational purposes do the four groups of academic users ***currently use*** or plan to use LLMs and generative AI in individual, institutional and national levels in ADMIT partnership?

3) What ***opportunities*** do the four groups of academic users identify in relation to individual, institutional and national policies and practices concerning the use of generative AI in ADMIT partnership?

4) What ***challenges*** do the four groups of academic users describe concerning individual, institutional and national policies and practices governing the use of generative AI in ADMIT partnership?

2. Methodology

2.1. Research design

This report has mainly aimed to explore policies and practices related to the use of LLMs and generative AI in ADMIT project partner universities. In respect to this aim, quantitative (including open-ended questions) and qualitative data were collected, to help explain and elaborate on the quantitative results.

2.2. Participants

The data were collected from the following 11 partner universities: Anadolu University (AU)- TR, FernUniversität in Hagen (FERNUNI)- DE, Hellenic Open University (HOU)- GR, University of Jyväskylä (JYU)- FI, Open University of Cyprus (OUC)- CY, Open Universiteit Nederland (OUNL)- NL, Open University of the United Kingdom (OUUK)- UK, Universidad Nacional de Educación a Distancia (UNED)- SP, UniDistance Suisse (UNIDISTANCE)- CH, Università Telematica Internazionale (UNINETTUNO)- IT, and Fundació per a la Universitat Oberta de Catalunya (UOC)- SP. The purposive sampling method was employed to select participants who use AI tools, aiming to gather more data on individual, institutional, and national policies and practices.

The population was composed by 1642 participants belonging to different categories and specifically: 16 administrative staff, 27 IT/support staff, 1284 students, and 315 teachers, who completed the questionnaires. Table 1 presents the distribution of data regarding partner universities.

Table 1- The Distribution of Data within Partner Universities

Institution	Administration	IT/Support Staff	Students	Teachers
AU	1	1	51	12
FERNUNI	1	3	27	10
HOU	1	2	20	10
JYU	1	2	5	7
OUC	2	2	26	14
OUNL	2	2	153	147
OUUK	1	3	20	10
UNED	2	7	871	60
UNIDISTANCE	1	1	72	18
UNINETTUNO	3	3	26	19
UOC	1	2	13	8
Total	**16**	**27**	**1284**	**315**

Semi-structured individual interviews were conducted with 13 administrative staff, 13 IT/support staff, 60 students, and 54 teachers from the consortium. The distribution of interviews across partner universities is shown in Table 2.

Table 2- Number of Individual Interviews from Partner Universities

Institution	Administration	IT/Support Staff	Students	Teachers
AU	1	1	4	4
FERNUNI	1	1	4	5
HOU	1	2	4	4
JYU	1	0	0	4
OUC	1	1	4	4
OUNL	1	1	7	1
OUUK	1	2	4	4
UNED	1	2	4	4
UNIDISTANCE	1	1	4	4
UNINETTUNO	3	2	22	20
UOC	1	1	3	4
Total	**13**	**13**	**60**	**54**

2.3. Data collection tools

In collaboration EADTU, AU, JYU and OUC representatives designed and developed online questionnaires and semi-structured individual interview protocols to gather information on policies and practices within the partnership. For the quantitative part of the study, four questionnaires (see Appendices A, B, C, and D) were used to collect data on individual, institutional and national awareness and usage of practices and/or policies regarding the use of LLMs or generative AI. To complement the quantitative results, qualitative data were gathered through four sets of semi-structured interview questions (see Appendices E, F, G, and H) prepared for the following stakeholder groups:

- **Administration/University Management:** This group included rectors, vice-rectors, directors, deans, and other individuals qualified to respond to questions about national, institutional, and individual policies and practices within the institution. If multiple respondents were needed for the questionnaire, it was recommended that relevant individuals complete it.
- **IT/Teaching and Learning Support Services:** This group included managers, deputy managers, directors, deputy directors, and staff from support departments, IT support departments, and departments dedicated to LLM and generative AI. Additional respondents from different departments could be included as needed.
- **Teachers:** It was recommended to involve teachers from various faculties, if possible.
- **Students:** It was recommended to involve students from different levels of study and faculties, if possible.

The questionnaires and semi-structured interview questions were largely similar across the four stakeholder groups, with a few modifications specific to each group to enable meaningful comparisons. The questionnaires consisted of three sections—individual, institutional, and national levels—focused on awareness, purpose of use, opportunities, and challenges,

featuring 11 closed- and open-ended questions in alignment with the research questions. Similarly, the semi-structured interviews included three sections centered on awareness, purpose of use, opportunities, and challenges. Consent forms were prepared for both the questionnaires and the semi-structured interviews.

Partners were expected to conduct semi-structured interviews following the completion of the online questionnaires. To ensure comprehensive data collection, it was recommended that they first review preliminary data collected from administrators, support staff, teachers (faculty members), and students. This step aimed to identify areas requiring additional detail, or concrete examples regarding practices, policies, challenges, and opportunities at individual, institutional, and national levels.

The primary goal of the interviews was to gain deeper insight into individual, institutional, and national policies and practices related to Generative AI and LLMs within partner institutions. Partners were encouraged to seek additional details or elaborations on the challenges and opportunities faced while integrating Generative AI and LLMs into educational, research, or operational processes. Partners were required to conduct interviews with:

- at least 1 administrator among those who filled out the questionnaire (a person from top level management of the university who has enough details about policies and practices in each partner institution)
- at least 1 technical or other support staff among those who filled out the questionnaire
- at least 4 teachers (preferable among those who filled out the questionnaire but not necessary)
- at least 4 students (preferable among those who filled out the questionnaire but not necessary)

The minimum number of participants for each data collection tool and each stakeholder were determined by consensus among all. Table 3 below summarizes the data collection tools.

Table 3- Summary of Data Collection Tools and minimum number of participants required

Stakeholders		Data collection tools	Minimum expected number of participants
Administration/ University Management	University management: rectors, vice-rectors, directors, deans, etc., the person who is eligible to answer questions about national, institutional and individual policies and practices in the institution. If more than one person needs to respond to the questionnaire, please have the relevant individuals fill it out.	Online questionnaire involving open and close ended questions. + Semi-structured interview with the person who has filled out the questionnaire.	1 + 1
IT/Teaching and learning support services	Managers, vice managers, directors, vice directors, etc. of support departments, IT support departments, departments dedicated to LLM and GenAI, etc. If needed, more people can be involved from different departments.	Online questionnaire involving open and close ended questions. + Semi-structured interview with the persons who have filled out the questionnaire.	1 + 1
Teachers	Teachers from different faculties, if possible.	Online questionnaire involving open and close ended questions. + Semi-structured individual interviews, either online or face-to-face, preferably with teachers who have filled out the questionnaire.	10 teachers for the questionnaire + 4 teachers for individual interviews
Students	Students from different levels of study and faculties, if possible.	Online questionnaire involving open and close ended questions. + Semi-structured individual interviews, either online or face-to-face, preferably with students who have filled out the questionnaire.	20 students for the questionnaire + 4 students for individual interviews

Additionally, a short questionnaire was prepared and sent to partner institutions to gather further information on current policies and practices regarding the use of LLMs and Generative AI tools (Appendix K). This was intended to complement and confirm the responses collected from students, teachers, administrators, and support staff. We requested that each partner conduct a brief review of their country and institution data to ensure an accurate and up-to-date reflection of current policies and practices.

2.3.1. Piloting of the questionnaires

The questionnaires were piloted internally by participants from the collaborating institutions, including ten students, five teachers, five support staff members, and one administrative. Based on their feedback, the questionnaires and consent forms were updated.

Following the pilot study, four sets of questionnaires, interview questions, consent forms, and a data collection guide were shared with all consortium members for additional revision and feedback. Partners provided input, leading to further revision of the documents. Once finalized, the online versions of the questionnaires were shared with all partners for implementation.

2.4. Data collection process

A Data Collection Guide was prepared, including guidelines for both online questionnaires and interviews. Each partner was expected to collect data within their respective institutions from May to June 2024 across all relevant stakeholders. Ethical approval documents for data collection were provided to each institution individually.

Data collection involved online questionnaires and semi-structured interviews, administered sequentially to each stakeholder group. To ensure meaningful insights, participants using AI tools were purposefully selected focusing on individual, institutional, and national policies and practices.

The online questionnaires, developed in Google Forms, were provided to partners and administered anonymously. Consent forms for both questionnaires and interviews (see Appendices I and J) were required. Questionnaire questions were presented only to those who accepted the consent form. Similarly, before the interviews, a consent form was signed by the interviewees.

Individual interviews were conducted either in person or online, based on convenience. Partners were advised to administer the tools either in English or in their local language. For the latter, each partner was responsible for translating the questionnaires, interview questions, and consent before.

Partners were tasked with completing questionnaire data collection by end of May and interview data collection by the end of June 2024. Findings were to be reported in English by July 8, 2024, following a specified format indicated in the Data Collection Guide.

An additional short questionnaire was then sent to partner institutions to gather information on current policies and practices in their institutions and countries, complementing and verifying the responses collected from students, teachers, administrators, and support staff.

2.5. Data analysis

2.5.1. Quantitative analysis for group comparisons and descriptive statistics

To analyse the data, a generalized linear model (GLM) was used, treating the questionnaire questions as dependent variables. The model included the group (student, teacher, IT/support, admin) variable as a categorical predictor. The analysis was conducted using IBM

SPSS Statistics, where the likelihood ratio method was applied for parameter estimation. Bootstrapping was utilized with 1000 stratified samples for each partner institution to assess the stability of the parameter estimates and to compute 95% confidence intervals for each group. Bootstrapping, with institution as a strata variable, was also applied when reporting descriptives without dividing users into groups.

The Type III Wald X^2 test was conducted to evaluate the overall effect of the group variable on responses for each question. While the analysis included responses from four to five levels of awareness for each question, the highest level of awareness was set as the reference category and is not presented in the output. The threshold for administration was set at zero, acting as the baseline for comparisons.

2.5.2. Quantitative analysis to illustrate figures

For the purposes of presenting the questionnaire results in figures, the data was normalized because each partner who conveyed the questionnaire in their own institution had a different sample size. For example, the questionnaire sample size for student data varied between 871 and 5 across partner institutions.

If the data was presented in raw units, the results would been skewed towards the partner institution with a remarkably bigger sample size. To present a generalized view of the data considering questions 1-8 in the questionnaires, the percentages for each group (student, teacher, IT/support, administration) and for each answering option were calculated separately for each partner institution. As a result, in the illustration data, any given partner institution has a maximum summed percentage of 100% per group.

2.5.3. Qualitative Data Analysis

For the qualitative analysis of the open-ended questionnaires and semi-structured interviews, the findings were coded according to the themes established at the beginning of the study: *awareness*, *purpose of use*, and *opportunities* and *challenges*.

For the interviews, quotations from stakeholders across different universities were included to highlight the diverse perspectives. When analysing the qualitative data, AI tools such as Microsoft Copilot Pro, ChatGPT, etc. were used as needed. The analyses were then peer-reviewed to ensure the reliability of the findings.

3. Results

3.1. The results regarding *familiarity* with LLMs and generative AI

Along with the data related to the research questions, general data on LLMs and generative AI were collected from the participants. Academic users of AI —including students, teachers, IT/support, and administration- were asked about their familiarity with LLMs and generative AI.

Differences in familiarity among these four groups were analysed using a Generalized Linear Model (GLM). The overall model was *statistically significant*, as indicated by the Omnibus Test (χ^2= 69.731, df = 3, $p < .001$) and the Tests of Model Effects (Wald χ^2 = 68.526, df = 3, $p < .001$), indicating that group has an effect in familiarity with LLMs and generative AI tools.

Students showed significantly lower familiarity with AI, while teachers, IT/support and administration demonstrated no statistically significant differences (Table 4).

Table 4- Regression Parameters for Group Comparisons

Parameter	B	Std. Error	Sig. (2-tailed)	95% Confidence Interval
Students	-0.912	0.388	.014 *	[-1.602, -0.059]
Teachers	0.011	0.392	.972	[-0.698, 0.864]
IT/Support	0.840	0.548	.114	[-0.190, 1.964]
Administration	0	—	—	—

*Note.*p < .05, **p < .01, ***p < .001.*

When considering all students, their familiarity with LLMs and generative AI was generally low, with most responding '*No, not very familiar*' (median = 2, range = 3). Results regarding familiarity with LLMs and generative AI are shown in *Figure 1*.

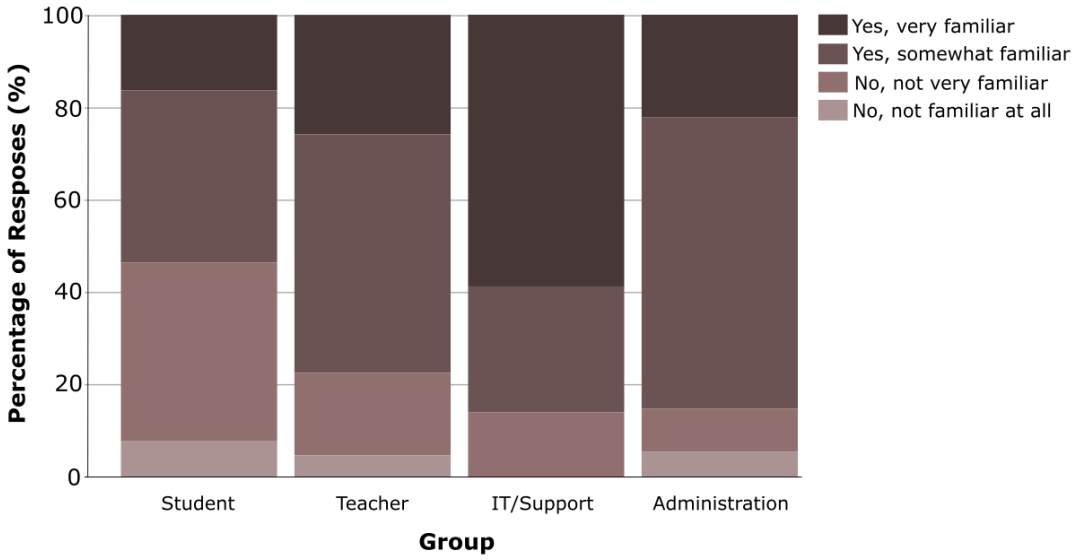

Figure 1- Familiarity with LLMs and Generative AI

The results regarding training or support received for using LLMs or generative AI tools in the academic context was analysed using GLM. No statistically significant effects were found within the model. Across all groups, the perceived level of training and support was generally low, with the median response being '*No, but I would like to receive training/support*' (median = 2, range = 3) (Figure 2). This suggests that participants recognize ***a need for further training and resources*** to better understand and utilize AI technologies in their academic roles.

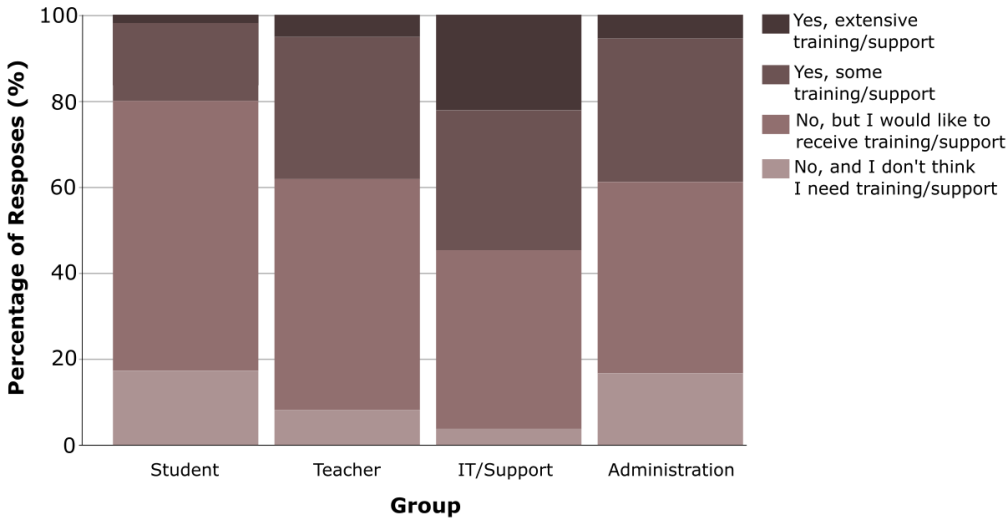

Figure 2- Training or Support Received on the Use of LLMs or Generative AI Tools

As shown in Figure 2, one- fifth of students, one- third of teachers and nearly half of IT/Support staff, and one- third of administrative staff reported that they had received training or support to generative AI tool. Tables 7 and 8 summarize open-ended positive answers to the question "*Have you received any training (formal or informal course, etc.) or support (teacher/expert/peer guidance, learning resources, etc.) related to the use of LLMs or Generative AI tools?*". The responses were categorized into formal and informal training/support. *Formal training* refers to structured and organized learning experiences that are typically provided by educational institutions, professional organizations, or training providers. These training sessions are often planned, scheduled, and delivered by qualified instructors or experts in the field. *Informal training* refers to unstructured and self-directed learning experiences that occur outside of formal educational settings. This type of training is often driven by the individual's own interests and needs, and it can happen spontaneously or through self-initiated activities. Summary of the formal and informal training/support received by participants is given below.

Students

- Formal Training/Support: Face-to-face and online workshops, e-learning conferences, presentations on using ChatGPT, short workshops on AI applications, and training sessions at local institutions.

- Informal Training/Support: Self-directed learning through research, reading articles and books, following news on social media, and hands-on experience with AI tools like ChatGPT and Microsoft CoPilot.

Teachers

- Formal Training/Support: Courses on platforms like Coursera and EdX, workshops on practical applications of generative AI, seminars and conferences on AI in education, webinars, and institutional training sessions offered by universities.
- Informal Training/Support: Self-learning through platforms like YouTube, peer guidance from colleagues, learning resources from company meetings and academic research, and attending conferences and workshops.

IT Support and Administrative Staff

- Formal Training/Support: Courses and workshops such as "Training Course on AI and Its Application in Education," various workshops as part of conferences and exchange meetings, webinars, and courses at institutions like UNED and RTVE. Internal training includes ZLI Tech Talk and technical training on Azure AI.
- Informal Training/Support: Online resources like tutorials for using ChatGPT, self-initiated learning through third-party providers like KI campus and HPI, and peer support from colleagues and superiors.

3.2. The results regarding *awareness* of individual, institutional and national policies and practices

Research Question 1: To what extent are the four groups of academic users aware of individual, institutional and national policies and practices regarding the use of generative AI in higher education?

Data regarding standards, rules, and policies concerning the use of AI in academic context was analysed using a Generalized Linear Model (GLM). However, no statistically significant effects were detected in the model. Including all groups, their compliance with rules etc. was low, with most responding 'I do not follow them strictly' (median = 2, range = 3). Comparisons by participants are given below (Figure 3).

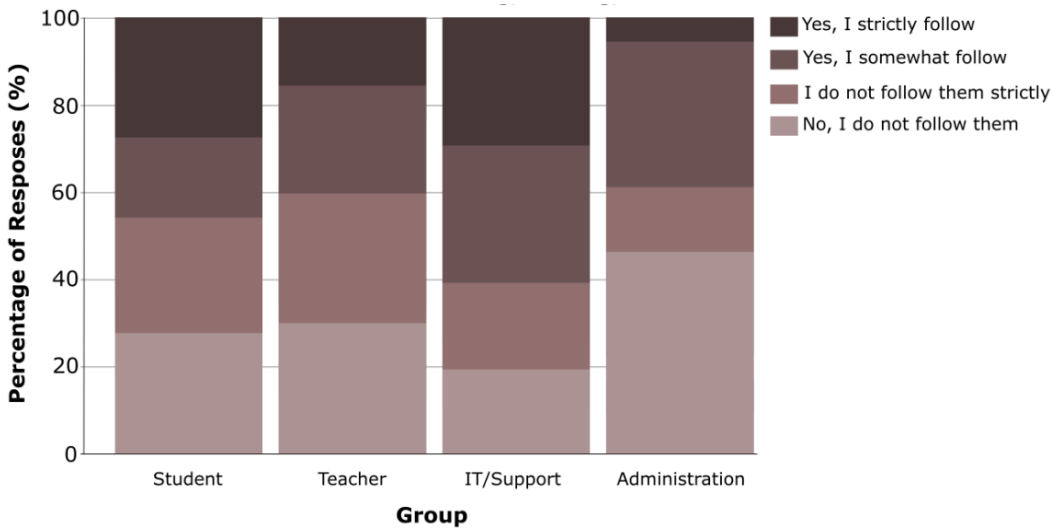

Figure 3- Following Specific Standards, Rules, or Policies While Using LLMs or Generative AI Tools In Teaching, Learning, and Research

Those participants who had answered "Yes, I strictly adhere to available standards, rules, or policies" or "/ Yes, I adhere to them to some extent" also answered an open-ended question "Do you follow specific standards, rules, or policies while using LLMs or Generative AI tools in studying or research?" described their personal policies related to their use of LLMs or generative AI tool use in multiple ways. A content analysis of the answers related to compliance with standards, rules, and policies related to LLMs or generative AI tool use (all stakeholders) are summarized and examples are used to point the category (note: pseudonyms are used throughout).

Data Protection and Privacy: Many respondents emphasize the importance of not sharing personal or sensitive data with AI tools and adhering to data protection laws.

Dila[2] (Student): *I do not enter or upload any protected data when working with generative AI.*

Elen (Teacher)*: I avoid providing information that may be sensitive.*

Figen (Administrator): *Avoiding the inclusion of sensitive data in AI prompts.*

Tom (IT/Support): *Ensuring AI tools do not compromise data integrity.*

Verification and Accuracy: Users often verify the accuracy of AI-generated content by cross-checking with other sources before using it in their work.

Ela (Student): *I use AI to check/cross-check facts, and certainly not to obtain an opinion or interpretation.*

Can (Teacher)*: I do not use or copy any information provided by LLMs without verifying its veracity.*

Fox (Administrator): *Verifying AI-generated information against other sources.*

[2] Pseudonyms are used for student names.

Ethical Use: Ethical considerations are highlighted, including avoiding plagiarism, acknowledging the use of AI, and ensuring AI-generated content does not violate ethical standards.

Asax (Student): *I strive to use these tools in an ethical manner.*

Elen (Teacher)*: Ethical, I always indicate origin, I never use it to sign my own work.*

Meri (Administrator): *Following the university's AI usage guidelines.*

Chan (IT/Support): *Ensuring copyright compliance when using AI tools.*

Institutional Policies: Several respondents mention adhering to specific institutional policies or guidelines related to AI use in their universities or organizations.

Feri (Teacher)*: At our university, we have specific rules we have to follow (ethics, the use of AI in a specific and controlled environment when we are asking support to AI related to our learning resources, exams, etc.).*

Ruth (Administrator): *Following the university's AI usage guidelines.*

Max (IT/Support): *Using only approved AI tools like Copilot.*

Transparency and Reporting: Transparency in the use of AI tools is important, with some respondents indicating they report or disclose when AI tools are used in their work.

Haki (Student): *The general rule is, do not generate anything when you already don't know part of the answer*

Elen (Teacher)*: Not sharing personal data with the IA, citing when it's been used.*

Hagi (Administrator): *Taking responsibility for the accuracy of AI-generated content.*

Guidelines and Recommendations: There are references to guidelines and recommendations from various organizations, including universities and international bodies like UNESCO and OECD.

Elf (Student): *I benefit from UNESCO's AI Ethics & Recommendation.*

Hox (Teacher)*: I use it within the framework of laws and regulations that were previously established and published regarding data security and ethical regulations for the EU.*

Zohi (Administrator): *Following Regulation (EU) 2024/1689 on AI.*

Slun (IT/Support): *Adhering to EU-level AI guidelines.*

AI in Teaching and Learning: Some respondents discuss the use of AI in teaching and learning, emphasizing the need for clear principles and frameworks for its integration.

Suphi (Student): *I use AI to check/cross-check facts, and certainly not to obtain an opinion or interpretation.*

Sue (Teacher)*: I use the information obtained from the AI as a basis for further work, to help in specific moments and I report its use in those writings in which its use has contributed significantly.*

Compliance with Regulations: Compliance with local, national, and international regulations regarding AI use is a common theme among respondents.

Barry (Student): *I have to comply with certain criteria set by my organization.*

Chungola (Teacher)*: I follow the guidelines for the use of this type of tools, provided by the Vice-rectorate for Educational Innovation of the university and the University Institute of Distance Education.*

Aras (Administrator): *Following the university's AI usage guidelines.*

Methin (IT/Support): *Ensuring copyright compliance when using AI tools.*

Personal Practices: Individuals describe their personal practices when using AI tools, such as not copying AI-generated text directly and using AI for specific tasks like translation or idea generation.

Harry (Student): *I make changes to the content provided by AI in order to avoid plagiarism.*

Elen (Teacher)*: I am responsible for the text of AI and I always check the correctness of the content.*

John (IT/Support): *Taking responsibility for the accuracy of AI-generated content****.***

Lack of Awareness: Some respondents admit to not being fully aware of the standards, rules, or policies related to AI use.

Topi (Student): *I don't use AI in my studies or in life in general.*

Evrox (Teacher)*: I have no clue about the standards, rules and policies of the university*

We also examined differences in group awareness of institutional practices involving LLMs and generative AI tools. The results of the GLM Omnibus test were statistically significant (Likelihood Ratio $\chi^2 = 275.396$, df = 3, $p < .001$), indicating that group membership was a significant predictor of awareness levels. This finding was further supported by the Test of Model Effects, where group differences yielded a significant Wald X^2 value (Wald $X^2 = 271.000$, df = 3, $p < .001$). Students showed significantly lower awareness of institutional practices (median = 1, range = 4), while Teachers (median = 3, range = 4), IT/Support (median = 3, range = 3) and Administration (median = 3, range = 4) did not significantly differ from each other in their awareness levels (Table 5).

Table 5- Regression Parameters for Group Comparisons

Parameter	B	Std. Error	Sig. (2-tailed)	95% Confidence Interval
Student	-2.068	0.479	<0.001 ***	[-2.940, -1.016]
Teacher	0.118	0.475	0.808	[-0.780, 1.120]
IT/Support	0.810	0.568	0.118	[-0.216, 2.022]
Administration	0	0	-	-

*Note.*p < .05, **p < .01, ***p < .001.*

Participants also responded to question whether their institution have practices (e.g. virtual assistant, automated grading, personalized learning, etc.) regarding to use of LLMs or generative AI tools. The results are shown in Figure 4.

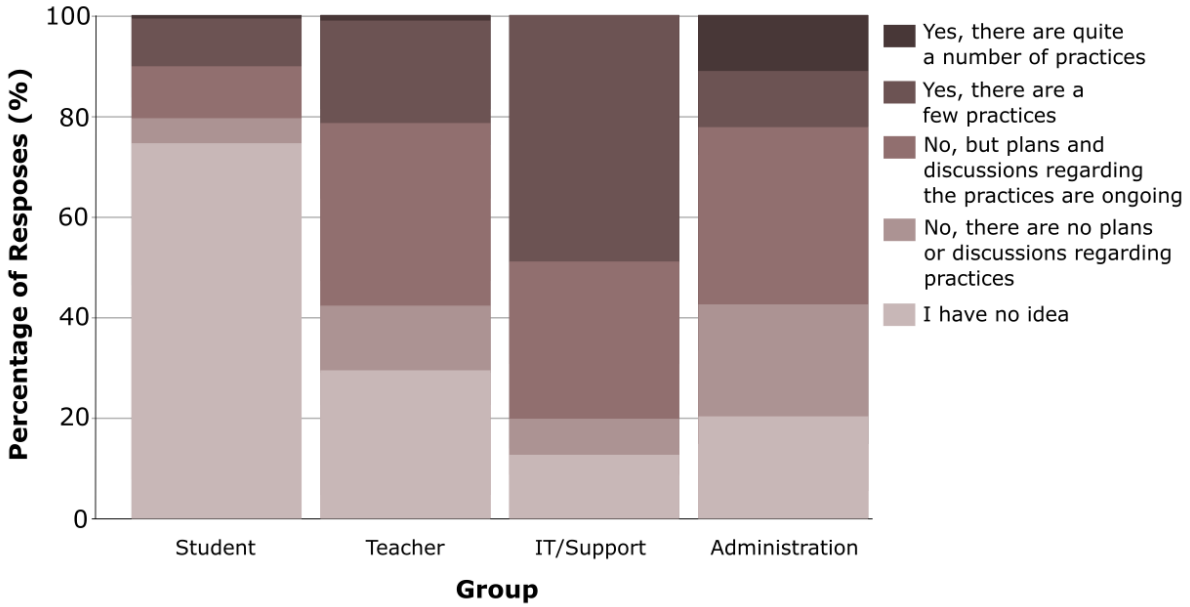

Figure 4- Institutional Practices Regarding the Use of LLMs or Generative AI Tools

Figure 4 presents that many of the students have no idea whether their institution have practices. However, as expected, the awareness of teachers, IT/support services and administrators is higher. The answers of those who answered "Yes, ..." to this question (*Are there any institutional practices (e.g. virtual assistant, automated grading, personalized learning, etc.) regarding the use of LLMs or Generative AI tools in your institution?) are given below.*

Toki (Student): *There is a university regulation specifying how AI can be used.*

Hari (Student): *There is an assistant available to contact the institution, but I have never used it.*

Jane (Teacher): *An artificial intelligence-based chat application that provides 24/7 support is used to instantly answer questions about Anadolu University Open Education System.*

Loory (Teacher): *As far as I know, there are: student assistance chatbots, AI models to support personalised learning pathways.*

Akil (IT/Support): *Various chatbots to talk with different teaching materials, chatbots for commercial topics, AI to help give feedback... All are in the experimentation phase.*

Mezu (IT/Support): *For this purpose, we investigate scenarios and develop suggestions for different uses of generative artificial intelligence, especially ChatGPT.*

Sara (Administration): *We are working on several lines such as student assistance, virtual tutors and/or generation of learning resources.*

Suzan (Administration): *Institutional initiatives on AI are channelled through two strategic working groups: AFIA, which works to improve digital assessment processes and formative feedback, also incorporating AI; and SOFIA, which coordinates the integration of AI into processes beyond teaching and learning: academic management, internal university operations, marketing, and sales, etc.*

To examine the differences of awareness of institutional policies among academic AI user groups, an ordinal logistic regression analysis was performed. The Omnibus Test revealed a significant overall model fit, with a Likelihood Ratio X^2 of 244.756 (df = 3, $p < .001$), indicating that the model with group predictors significantly differs from the thresholds-only model. Further analysis demonstrated that group membership significantly impacts awareness of institutional policies, evidenced by a Wald X^2 of 244.558 (df = 3, $p < .001$). Group comparison showed that students were unlikely to report high awareness of their institutional policies (median = 1, range = 4) (Table 6).

Table 6- Regression parameters for group comparisons

Parameter	B	Std. Error	Sig. (2-tailed)	95% Confidence Interval
Student	-2.747	0.448	0.001 *	[-3.622, -1.810]
Teacher	-0.708	0.446	0.089	[-1.544, 0.267]
IT/Support	0.227	0.574	0.668	[-0.819, 1.540]
Administration	0.000	0.000	-	-

*Note.*p < .05, **p < .01, ***p < .001.*

Participants also responded to question whether their institution have policies (rules, standards, recommendations, guidelines, regulations, etc.) regarding to use of LLMs or generative AI tools. The results are shown in Figure 5.

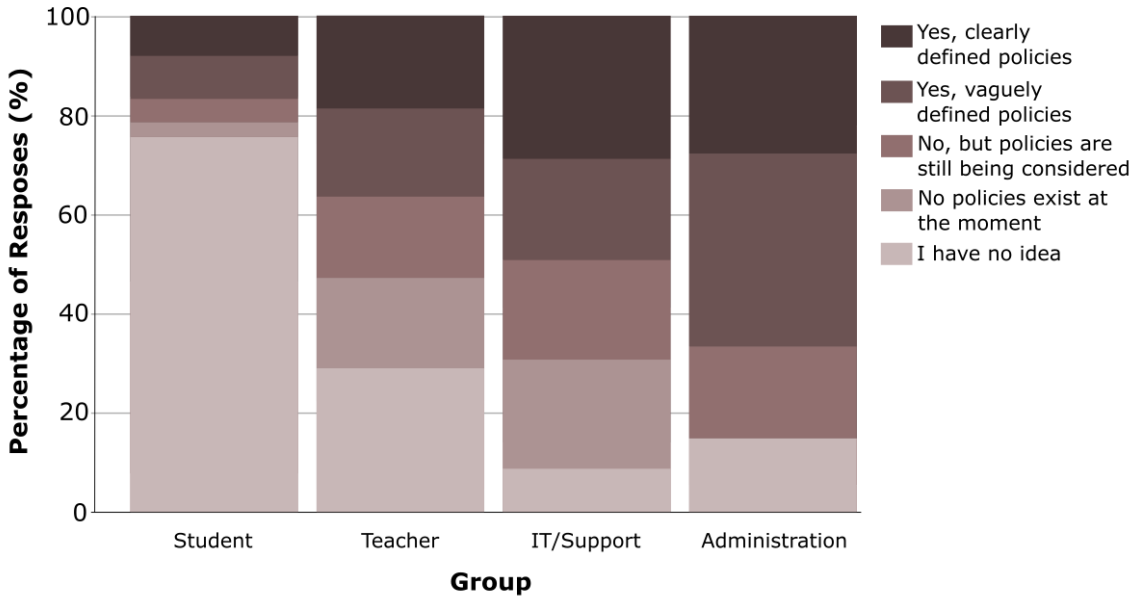

Figure 5- Institutional Policies Regarding the Use of LLMs or Generative AI Tools

Figure 5 presents that many of the students have no idea whether their institution have policies. However, as expected, the awareness of teachers, IT/support services and administrators is higher. The answers of participants who answered "Yes, ..." to the question "*In your knowledge, are there any institutional policies (rules, standards, recommendations, guidelines, regulations, etc.) in your institution related to the use of LLMs or Generative AI tools? Please specify details about institutional policies.*" are presented below.

> **Olaf (Student):** *The FernUniversität in Hagen has published an AI guideline. It lists principles and orientation aids in connection with generative AI.*
>
> **Kadir (Teacher):** *An ethical guide on the use of artificial intelligence was recently published by The Higher Education Council of Türkiye. However, I have not evaluated it in detail yet.*
>
> **Tom (IT/Support):** *"The use of Artificial Intelligence by students is permitted at any stage of their studies. It must be explicitly mentioned at which point in the deliverable an Artificial Intelligence application was used, along with a detailed reference to the literature using the APA reference system.*
>
> **Huck (Administer)***: As the dean's office, we have decided on separate regulations for the use of AI across all our study programs. For undergraduates, its use is prohibited, while for most postgraduate programs, it is permitted, provided that the teachers are informed about the processes and tools used.*

Summary of open-ended answers of the four stakeholder groups to a question concerning awareness of institutional policies regarding the use of generative AI in academic settings, include guidelines, prohibitions, and recommendations.

- **General Institutional Policies**: Some institutions are developing specific policies on the use of AI, with a focus on maintaining scientific integrity and preventing plagiarism.

For example, the Fern Universität in Hagen has published guidelines that permit AI use under certain conditions, requiring explicit acknowledgment and proper citations.

- **Undergraduate and Postgraduate Regulations**: AI usage is prohibited in some universities for undergraduates, while postgraduates may use AI tools with varying levels of restrictions depending on the program. Specific regulations are embedded within plagiarism detection platforms.
- **Course-Specific Policies**: In some courses AI tools like ChatGPT or Dall-E 2 are allowed for specific tasks defined by the teacher, provided they support the learning outcomes. In these cases, proper citation using the APA system is mandatory.
- **Guidelines and Recommendations**: Various universities have published guidelines and recommendations for AI use in teaching and studying, emphasizing the need for explicit acknowledgment and proper referencing.
- **Security and Ethical Considerations**: Institutions are also focusing on security policies related to AI use, including data protection, intellectual property, and ethical concerns. These policies are under constant review and updates.
- **Teacher Guidelines**: Teachers are provided with guidelines on how to integrate AI in their courses, including ethical considerations and ways to prevent misuse. Some guidelines are still in development.
- **Student Awareness and Compliance**: Students are informed about AI policies through various channels, including course-specific guidelines and institutional websites. Non-compliance, such as using AI to generate texts without acknowledgment, is considered plagiarism.
- **Nationwide and European Standards**: Some policies align with broader national and European standards, ensuring consistency across institutions. For example, the UOC follows the AI Legislation Act and ALTAI recommendations.

A Generalized Linear Model (GLM) was used to analyse responses to the question, "*Are there any national policies in your country related to the use of LLMs or Generative AI tools in education?*" The model demonstrated a significant difference across groups, as evidenced by a Likelihood Ratio X^2 of 12.329 (df = 3, p = .006), indicating that the model with group predictors significantly differed from the thresholds-only model. Further analysis of the Tests of Model Effects showed that group membership significantly influenced awareness of national policies (Wald X^2 = 12.997, df = 3, p = .005). Group comparison showed that students were unlikely to report high awareness of national policies (median = 1, range = 4). Interestingly IT/support and administration were likely to report that there were no national policies (median = 2, range 3) and none of them reported being aware of clearly defined policies. For detailed result, please see Table 7 and Figure 6 below.

Table 7- Regression Parameters for Group Comparisons

Parameter	B	Std. Error	Sig. (2-tailed)	95% Confidence Interval
Students	-0.992	0.508	0.026 *	[-1.839, -0.127]
Teachers	-0.650	0.524	0.181	[-1.511, 0.540]
IT/Support	-0.106	0.612	0.857	[-1.308, 1.175]
Administration	0	—	—	—

*Note.*p < .05, **p < .01, ***p < .001.*

Participants responded to the question whether they have national policies regarding to use of LLMs or generative AI tools in education. The results are given in Figure 6.

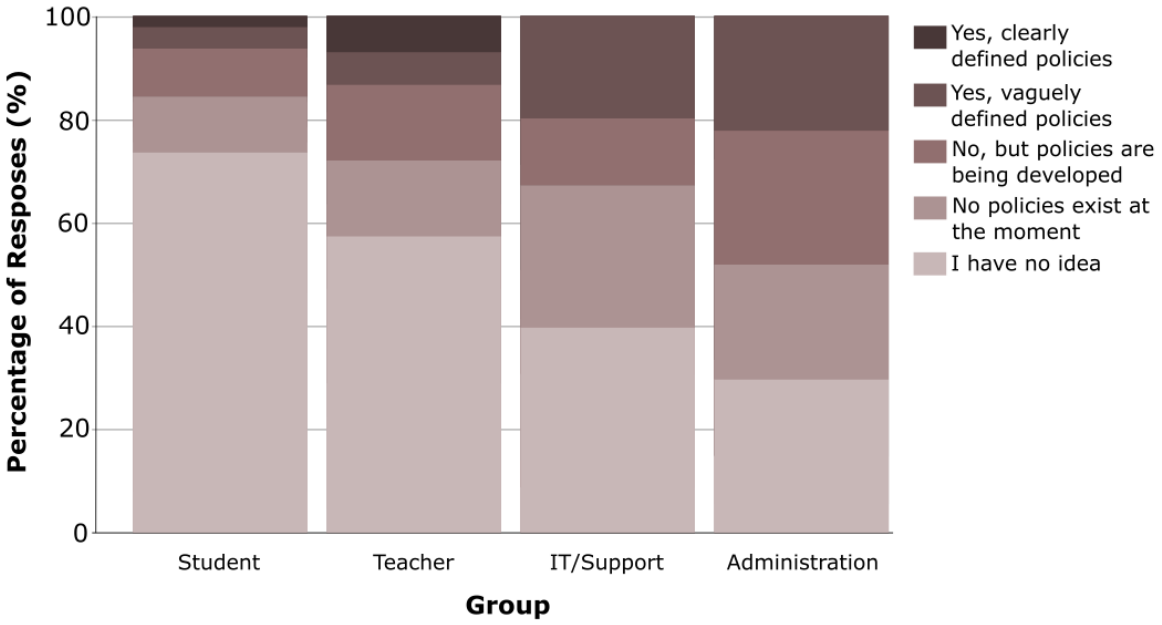

Figure 6- National Policies Related to the Use of LLMs or Generative AI Tools in Education

As shown in Figure 6, many of the students have no idea whether they have national policies. However, the awareness of teachers, IT/support services and administrators is higher. The answers of participants who answered "Yes, ..." to the question "*Are there any national policies in your country related to the use of LLMs or Generative AI tools in education? Please specify details about relevant national policies in your country. You are also welcome to add a link to relevant web pages if you know them.*" are presented below.

> **Ocan (Student):** *All universities have some kind of guidelines, but I don't know them exactly.*
>
> **Hulk (Teacher):** *The guidelines are insufficient and not easy to operationalise in each sector.*
>
> **Sarah (IT/Support):** *Using Generative AI has yet to specify policies nationwide. There is only a guide that is not very detailed for higher education institutions.*

> **Diron (Administer)**: *Ethical considerations are highly taken into account. The Spanish Committee on Research Ethics has shared Ethical Recommendations for AI research.*

There was a low level of awareness about national policies related to the use of Large Language Models (LLMs) or generative AI tools in education among all stakeholder groups. Only a very few stakeholders in all groups have provided answer to this open-ended question. Many students and teachers are not aware of any specific policies, while a few are aware but do not know the details.

A GLM was used to analyse differences between user groups concerning the presence of nationwide practices related to the use of LLMs and Generative AI tools. The Likelihood Ratio X^2 of 42.455 (df = 3, p < .001) indicated that the model with group predictors significantly differed from the thresholds-only model. Further analysis using the Wald X^2 of 45.313 (df = 3, p < .001) demonstrated that group membership significantly influenced awareness. Group comparison showed that students were unlikely to report high awareness of national policies (median = 1, range = 4). Interestingly, IT/Support staff reported higher awareness of national practices (median = 3, range = 3) than Teachers (median = 1, range = 4) and Administration (median = 1, range = 4).

Table 8- Regression Parameters for Group Comparisons

Parameter	B	Std. Error	Sig. (2-tailed)	95% Confidence Interval
Student	-1.175	1.619	0.015 *	[-2.224, -0.145]
Teacher	-0.372	1.630	0.510	[-1.370, 0.953]
IT/Support	0.474	1.674	0.458	[-0.949, 2.014]
Administration	0	0	-	-

*Note.*p < .05, **p < .01, ***p < .001.*

The participants responded to the question of whether they have national practices regarding to use of LLMs or generative AI tools. The results are shown in Figure 7.

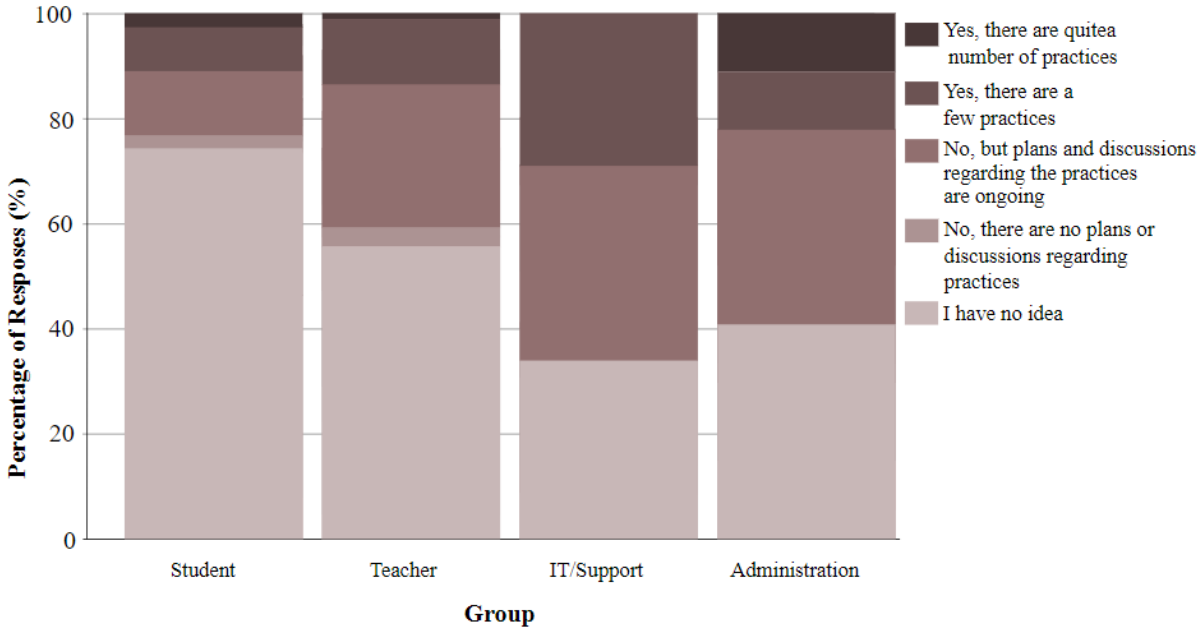

Figure 7- Nationwide Practices Regarding the Use of LLMs or Generative AI Tools

Many of the students and teachers have no idea whether they have national practices regarding the use of LLMs or Generative AI tools. However, the awareness of IT/support teams and administrators is higher than others, as shown in Figure 7. The answers of participants who answered "Yes, ..." to the question " "Are there any nationwide practices regarding the use of LLMs or Generative AI tools in your country? Please specify the details about national practices." are presented below.

> **Dani (Student):** *I have no idea that's still a grey area.*
>
> **Ally (Teacher):** *As far as I know, everyone is still searching for a good way to use AI and LLMs. It keeps developing, which makes it hard to keep up.*
>
> **Hanah (IT/Support):** *I have heard about them. I could not specify.*
>
> **Jack (Administer)***: The Government has published a Guide on the use of AI in May this year*

Many respondents, especially students and IT/support staff, are not aware of specific national practices regarding the use of LLMs or Generative AI tools. Common responses include "I don't know them" and "I have no idea that's still a grey area". Some respondents mentioned practices such as the use of ChatGPT, Face ID, voice assistants, mobile banking, and social media. There are also mentions of AI being used in company internships and as assistants for various tasks like writing automated emails and conducting research. There are references to various regulations and policies, such as the Spanish Artificial Intelligence Strategy 2024, the EU Artificial Intelligence Regulation, and the Ministry of Culture's Best Practice Guide. These frameworks aim to promote the ethical and safe use of generative AI at both national and European levels.

3.3. The results on the use of LLMs and generative AI for educational purposes

Research Question 2: For what specific educational purposes do the four groups of academic users currently use or plan to use LLMs and generative AI?

A Likelihood Ratio X^2 of 41.143 (df = 3, p < .001) indicated that the model with group predictors significantly differs from the thresholds-only model. Further analysis demonstrated that group membership significantly impacts the use of LLMs and Generative AI tools in studying, teaching, learning, or research, evidenced by a Wald X^2 of 40.644 (df = 3, p < .001). However, post hoc tests revealed no significant differences between individual groups. Related to this, the participants responded to the question of whether they use of LLMs or generative AI tools in teaching, learning, or research processes. The results are presented in Figure 8.

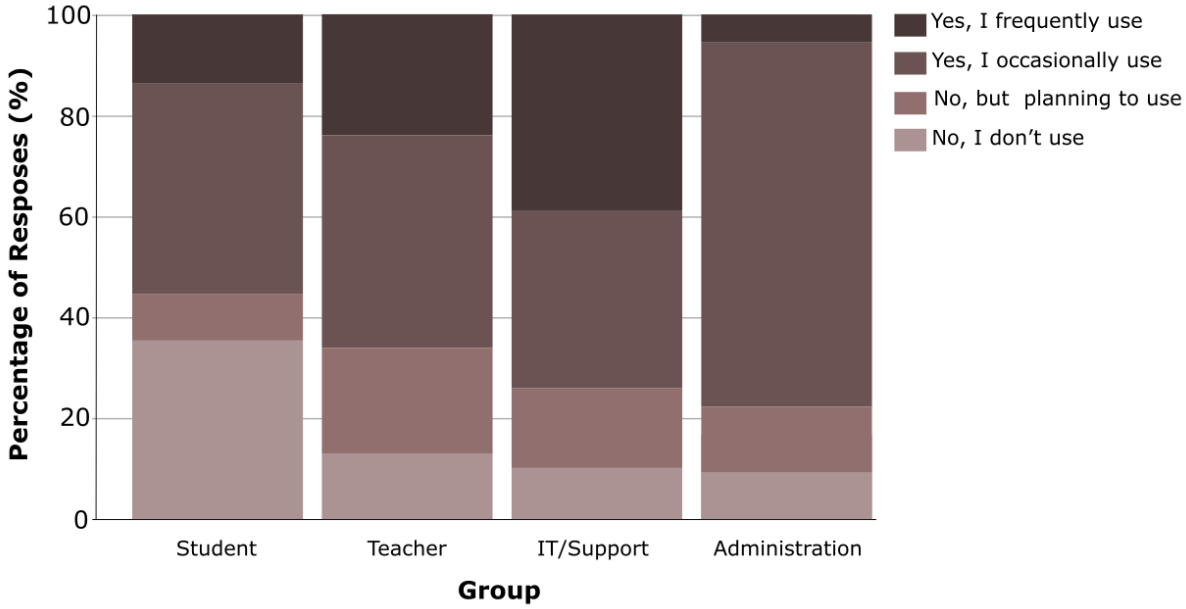

Figure 8- Use of LLMs or Generative AI tools in Teaching, Learning, and Research

As shown in Figure 8, most of the participants use LLM and generative AI tools in teaching, learning, and research processes. Regarding the usage, the participants expressed the following examples and use cases.

> **April (Student):** *I use these tools for creating content for the course, checking plagiarism, communication, translation, writing items for assessment and evaluation purposes, reviewing literature. I also use them as proofreader or second marker.*
>
> **Actor (Teacher):** *I use these tools for preliminary preparation in scientific studies (literature review, obtaining brief and concise information on the subject, etc.) or for language control during the reporting process.*
>
> **Mike (IT/Support):** *I've been involved in using these technologies in various areas including: Chatbots to judge the users' intent as well as for generating responses.*
>
> **Sinem (Administer)***: Use in information search, content generation, summaries etc.*

3.4. The results about *opportunities* of LLMs and generative AI

Research Question 3: What opportunities do the four groups of academic users identify in relation to individual, institutional and national policies and practices concerning the use of generative AI in higher education?

Regarding to the question "*What benefits/positive outcomes have you observed/ do you predict from using LLMs or Generative AI tools?"* are answered by all stakeholders. Findings by participants are summarized below.

Students pointed out numerous opportunities and benefits. One of the primary advantages is the significant *time-saving potential*. AI tools can perform tasks that would typically take several hours in a matter of seconds, thereby enhancing productivity and efficiency. For instance, AI can summarize texts, create outlines, and automate repetitive tasks, allowing educators and students to focus on more critical activities.

AI also fosters creativity by providing innovative ideas and *helping to detect errors*. It acts as a catalyst for creativity, offering high-quality ideas that might not be conceived by a single individual. Additionally, AI facilitates research by *analysing and interpreting data from multiple sources simultaneously*, which accelerates the research process and broadens the scope of available information.

Personalized learning is another significant benefit of AI in education. AI tools can offer tailored tutoring and feedback, helping students understand complex concepts and improve their skills. This personalized approach enhances the overall learning experience by addressing individual student needs and tracking their progress. Furthermore, *AI supports scientific work* by providing tools for research and analysis, which can lead to more thorough and insightful academic work. The efficiency and speed provided by AI tools are also noteworthy. AI can quickly implement ideas, save time on manual tasks, and improve the speed of content creation. This efficiency is particularly beneficial in administrative procedures and content generation, where repetitive tasks can be automated. Moreover, AI *improves access to information*, making it easier for students and educators to find the data they need quickly and efficiently.

In summary, based on student data, the use of Generative AI in education offers substantial benefits, including timesaving, enhanced creativity, improved research facilitation, personalized learning, support in scientific work, and increased efficiency and speed. These advantages highlight the potential of AI to transform educational practices and improve learning outcomes.

Teachers mentioned numerous opportunities and benefits of Gen AI tools. One advantage is the enhancement of cognitive processes*. AI can assist in the preparation of course materials and content*, thereby improving the overall learning experience. Generative AI also facilitates work processes by saving time and effort, allowing educators to stay current with educational trends. This is particularly evident in the role AI plays in education, training, and research processes. Personalized learning is another area where AI offers substantial contributions. AI provides individualized support for students, helping with simple activities, saving time, and correcting language. Moreover, AI supports learning processes by effectively and efficiently

managing academic tasks. It can be used by students as a tutor, helping them deepen their knowledge.

The development of new skills, particularly those in high demand in the labour market, is another benefit of AI. Skills such as prompt engineering are becoming increasingly important, and AI can help students develop these competencies. Additionally, AI can assist with writing blocks and provide summaries or overviews of various topics.

Improving written communication is another benefit, especially for students whose first language is not English.

Providing instant feedback is another advantage of AI, enabling adaptive testing and enhancing the learning experience. AI can facilitate asynchronous learning, allowing students to learn at their own pace.

In terms of efficiency, AI significantly improves time and effort efficiency in educational tasks. It also enhances the quality of work, supporting the creation of high-quality content. AI applications can operate 24/7, providing continuous support and information to learners. Automation of routine tasks is another significant advantage of AI, leading to increased productivity and efficiency. For example, AI can help design teaching materials more quickly and automate various tasks, enhancing overall productivity. AI also enhances creativity in teaching. It provokes thoughts and helps educators and students get started on tasks where they might not know how to proceed.

Furthermore, AI enables the creation of engaging and high-quality learning materials. It offers extensive possibilities in language learning and academic support. AI acts as a personalized assistant, offering tailored teaching and support services. AI also shortens business processes, making tasks easier and faster. It increases productivity and enhances creativity in educational tasks. AI ensures objectivity in grading through strict criteria, and it accelerates research processes, helping in writing scientific texts.

Answers of **IT Support and Administrative** staff were analysed together due to their small number. Also, this group indicated that these tools have proven to be highly beneficial for both work and studies, offering the potential to handle support services autonomously and provide quick analysis and recommendations based on learners' performance. For open and distance learners, generative AI-based chatbots offer the advantage of 24/7 availability, answering both student affairs and academic questions, thereby enhancing the learning experience. Generative AI tools also facilitate personalized learning by allowing learners to interact with AI for study-related queries and personalized exams. Additionally, these tools help overcome language barriers, enabling international students to communicate in their native languages with real-time AI translation. The efficiency gains from using generative AI are notable, including time savings, simplification of routine tasks, and improved performance on specific tasks. These tools also enhance the production of teaching materials, such as quizzes and grids, and provide 24/7 chatbot support for administrative and scientific queries.

Moreover, generative AI tools contribute to increased productivity and project facilitation by automating bothersome tasks and allowing individuals to focus on tasks that require critical thinking and expertise. The speed of administrative procedures is also improved, and the tools

facilitate the creation and modification of digital content for educational purposes. The use of generative AI in education prompts a reconsideration of teaching and learning processes, making them more efficient and personalized. Overall, the integration of generative AI tools in various fields leads to significant improvements in efficiency, productivity, and the quality of work.

Summary of the benefits and positive outcomes of using LLMs and/or generative AI tools as observed or predicted by students, teachers, and IT/support staff:

- **Efficiency and Productivity**: All stakeholder groups have observed significant time savings and increased productivity when using LLMs or Generative AI tools. These tools help in performing tasks faster and more efficiently, allowing users to focus on more critical activities.
- **Quality and Accuracy**: The use LLMs or Generative AI tools has led to improved quality and accuracy in various tasks, such as translations, data analysis, and content creation. Users have noted that AI can provide more accurate and high-quality outputs.
- **Creativity and Ideas**: LLMs or Generative AI tools were noted to generate creative ideas and support innovative thinking. Users mentioned that they found inspiration of these tools in various fields, including writing, research, and teaching.
- **Personalized Assistance**: LLMs or Generative AI tools were found to offer personalized support, helping with individualized tasks and providing tailored feedback.
- **Support in Research**: LLMs or Generative AI tools were mentioned to facilitate research by providing better possibilities for classifying and analyzing content. They were used in summarizing and correcting texts, analyzing data, and in finding appropriate literature.

3.5. The results about challenges of LLMs and generative AI

Research Question 4: What challenges do the four groups of academic users describe concerning individual, institutional and national policies and practices governing the use of generative AI in higher education?

Regarding to the open-ended question "*What challenges (technical, ethical, pedagogical) if any, have you faced/do you oversee in using LLMs or Generative AI tools in education*?" participants reported many points. One of the challenges is technical challenge. For **students**, technical challenges include issues with voice commands, language problems, translation inaccuracies, numerical problem-solving, prompt entry, openness and explainability, and response time and disconnections. Teachers face difficulties with non-English content, incorrect information, infrastructure problems, integration issues, limited free versions of AI tools, the need for fast AI models, and errors in AI data. Staff highlights acceptance of technology, data protection, de-skilling, compliance, information processing, scalability, cost control, training, specialized teams, and reliability. They also emphasize technical adequacy, information security and data protection, task improvement, and concerns about the accuracy of information provided by AI tools.

Students also mention lack of training on AI tools. They are concerned about a risk of taking the easy way out by relying on AI, increasing risk of fraud and risk not to develop of proper research skills nor develop critical thinking. Additionally, students have not encountered practical applications of an inclusive pedagogical approach and saw that AI assistants often make them feel like they are not interacting with a human being. They also mention lack of interaction with teachers, that may create an asocial learning environment. Verification of AI-generated content were also highlighted as essential skills that need to be developed. Ensuring equity and access to AI tools for all students was mentioned as another significant challenge, along with the need to adapt assessment and evaluation methods to accommodate AI use.

Among **teachers**, there were mentions of challenges related to defining ethical boundaries, detecting plagiarism, and addressing students' overreliance on AI tools. A need to adapt exams to the use of AI, promote independent thinking, and enhance critical thinking and media literacy were mentioned. A need to create new learning models and verify the correctness of AI-generated content was listed as a challenge from teacher perspective. Also familiarizing with the technology and integrating AI tools into the pedagogical process productively and critically were seen as challenges.

Staff were concerned with *plagiarism detection*, the evolving role of teachers, and the temptation for students to use AI tools without proper study. They emphasized the importance of teaching students to use AI tools correctly and of enhancing their critical thinking skills. A need for alternative examination formats to address AI use in education and the risk of students submitting AI-generated content as their own work were mentioned. Support staff also pointed out the potential for reduced critical thinking development due to AI tools providing ready-made answers and the risk of misinformation from AI-generated content. Ensuring the originality of texts produced by students using AI tools was another concern.

Another challenge faced the participants is ethical. For **students**, the primary concerns include the *accuracy and reliability of source citations*, *pedagogical concerns*, *prompt accuracy*, *openness and explainability*, *ownership of content*, *data protection*, *plagiarism*, *bias in algorithms*, *transparency*, and *the impact on critical thinking*. Teachers, in turn, face ethical challenges related to copyright issues, accuracy and reliability of AI-generated content, bias and misinformation, ownership of AI-generated content, ethical use of AI, ethical concerns in education, ethical challenges in dissertations and theses, and the ethical implications of AI-generated content. Staff were concerned with data protection, biases in AI, copyright issues, personal data, ethical boundaries, false content, human oversight, quality assurance, the need for private LLMs, and the ethical aspects of using AI. They also highlighted the need to re-evaluate ethical codes, the risk of plagiarism, data privacy and lack of transparency, social bias and critical thinking, resistance to change, and coherence in AI integration across various social spheres. Challenges faced by all participants are summarized below.

- **Technical Challenges:** These challenges include issues such as language barriers, incorrect information, infrastructure problems, integration with different platforms,

limited free versions of AI tools, errors in AI data, high complexity, rapid development, and high energy demand.

- **Pedagogical Challenges:** These challenges focus on the educational aspects, such as defining ethical boundaries, detecting plagiarism, students' overreliance on AI, adapting exams to AI use, promoting independent thinking, enhancing critical thinking and media literacy, creating new learning models, verifying AI-generated content, training and familiarization with technology, and establishing a pedagogical framework for AI integration.
- **Ethical Challenges:** These challenges involve concerns about copyright issues, accuracy and reliability of AI-generated content, bias and misinformation, ownership of AI-generated content, ethical use of AI, ethical concerns in education, shared authorship in dissertations and theses, and the ethical implications of AI in education.

3.6. Additional results regarding institutional and national policies and practices

Institutional policies and practices were gathered from ADMIT Project members at each institution to supplement and validate responses collected from students, teachers, administrators, and support staff. Table 9 presents the institutional policies and practices within ADMIT partner universities.

Table 9- Institutional Policies and Practices in ADMIT Partner Universities

Institution	Policies	Practices
AU	The Graduate Education Institute has updated its Thesis Writing Guide in 2024, requiring students to sign a 'Generative Artificial Intelligence Usage Declaration' form. If generative AI programs were used in writing the thesis, students are also required to specify the generative AI program they utilized and the type of support they received in the thesis. This is a required document.	A rule-based AI chatbot is being used for non-academic (administrative) support to answer student questions about enrolment, examinations, graduation, and more. At the Student Affairs Department of the Faculty of Open Education, research is being conducted on integrating large language models (LLMs) and generative AI into academic and non-academic support services. For this purpose, we are investigating scenarios and developing suggestions for various uses of generative AI, especially ChatGPT. In 2023, the Data Analytics and Artificial Intelligence Research Unit was established. The infrastructure setup of the unit is still ongoing. The aim of the Data Analytics and Artificial Intelligence Research Unit is to research developments in the fields of data analytics and artificial intelligence in higher education and to carry out projects. To achieve this, the unit seeks to collaborate with researchers and organizations from different disciplines, supporting the creation of environments and infrastructure that will promote development and application in these fields. Additionally, face-to-face, online, and hybrid training will be offered at various educational levels in the fields of data analytics and artificial intelligence, with plans to support the training of researchers who will work in these areas. Additionally, there are other research-level practices regarding the use of LLMs and generative AI tools, with projects funded by the EU and the Anadolu University Scientific Research Projects Commission.
FERNUNI	AI guide (file) and Recommendations for action (file) (with regular updates),	Experimental environments (for use and research of LLMs, GenAI and Learning Analytics): Feedback Centre,

	Service agreement on the use of AI systems at the FernUniversität in Hagen, Register of processing activities (VVT)	Automated Grading, Personalized Support, Immersive Collaboration Hub, access to various LLMs for testing.
HOU	There aren't any	There aren't any
JYU	Rector (15.4.2024): Policy on the use of artificial intelligence at the University of Jyväskylä Using AI-based applications in studies - JYU's instructions and guidelines University of Jyväskylä Information security guidelines for the use of artificial intelligence 7.12.2023: Primarily use Microsoft's Copilot's AI-based conversation on a university device and while logged in to the Edge browser with university credentials! Copilot (formerly Bing Chat Enterprise) by Microsoft	Virtual assistant: Chatbot called 'Minerva' is in use in the university webpages (2023-) JYU Digital Services has set up a new university-level discussion community Viva Engage, where you can discuss the use of different AI applications in your work, ask for opinions or views on AI, or even share a tip on how to use AI at work. (2024) Courses on AI are offered for students and staff (Eduhouse, MOOCs) (2023 – 2024) Personalized learning: Creation of personalized AI-aided learning is mentioned in the plan for the academic year 2025 in the JYU Open University.
OUC	Advisory guidelines aiming in assisting the university community (Students, Faculty, Researchers and Administrative Staff) in understanding the capabilities of Generative Artificial Intelligence, to effectively utilize the technology with responsibility and critical thinking, ensuring ethical standards, intellectual property, and transparency.	I am not aware of any related practices used by OUC
OUNL	An institution-wide steering committee has just been installed (oct 2024)	No, we currently have none.
OUUK	The Open University has institutional policies regarding the use of large language models (LLMs) and Generative AI tools. These policies include both student and staff guidelines: OU Generative AI Policies for Students: - Students may use Generative AI to support their learning. - Unless explicitly instructed otherwise, students may use Generative AI as part of their assessment preparation, but its use must be acknowledged. - Confidential or personal information about any individual or organisation, including the student and The Open University, must not be shared with Generative AI tools. - Copyrighted material from any individual or organisation, including assessment content from The Open University, must not be provided to Generative AI	There are institutional practices regarding the use of Generative AI tools at The Open University. One of the key initiatives is a pilot project titled "Developing robust assessment in the light of Generative AI developments". This study, funded by NCFE's Assessment Innovation Fund and conducted by researchers from The Open University, explores the challenges and opportunities posed by Generative AI tools, particularly large language models (LLMs) such as ChatGPT, in the context of assessment in further and higher education. Additionally, the university offers a training session through the library titled "Exploring Generative AI: critical skills and ethical use", which is primarily aimed at students but could also benefit staff members. This session provides essential insights into critical thinking and the ethical use of Generative AI technologies.

	tools. Students are cautioned that Generative AI outputs may be incorrect, biased, incomplete, or irrelevant. - Over-reliance on Generative AI could hinder the development of essential skills required for further study and employment. Staff Guidance on Generative AI in Teaching and Assessment: - This guidance offers general advice for staff involved in teaching. - Specific guidance for research and postgraduate supervision is outside the scope of this document. Generative AI Staff Development: - The university has developed training materials to help staff recognise content produced by Generative AI tools.	
UNED	The UNED has a Research Ethics Committee that will ensure compliance with Data Protection regulations in research and teaching projects, especially those involving the use of Artificial Intelligence, in compliance with the European Union's Artificial Intelligence Act.	Regarding UNED, the Vice-rectorate for Educational Innovation has developed a training and awareness programme called 'Use of Generative Artificial Intelligence' which can be consulted at the following link: https://www.uned.es/universidad/inicio/institucional/areas-direccion/vicerrectorados/innovacion/iaeducativa.html. This initiative is based on several pillars, the links to which can be found on the indicated web page. Guides for using generative AI tools, both for generalists and teachers and students. Various courses and workshops aimed at training university lecturers, university administration, and services staff in AI tools. Projects associated with sharing experiences in this area, such as the Educational Innovation Hub, the creation of an Emerging Educational Technologies Laboratory, and projects for use in other areas, such as plagiarism detection or educational resource search engines.
UNIDISTANCE	A teacher's guidelines to chatGPT and remote assessments (for teachers)	Experimental chatbot in One teaching Module, work in progress to deploy a chatboot for student's scolarity FAQ
UOC	The institution is still discussing the policies. Meanwhile, there is a policy that teachers can decide the level of application of AI in learning activities. The teacher can even decide to avoid its utilization.	We are piloting different experiences (how to provide feedback to the students using rubrics or other stablished criteria automatically but always supervised or validated by teachers, how to provide support of AI asking questions to the learning resources facilitated to the students when they are solving an activity, how to tutor students when they are starting their final degree thesis or project regarding to counsel them about how to start working, about methodology, structure, etc.)

In addition to institutional policies and practices, nationwide policies and practices were also collected from ADMIT Project members to supplement and validate responses collected from students, teachers, administrators, and support staff. Table 10 presents the nationwide policies and practices across ADMIT partner countries.

Table 10- Nationwide Policies and Practices in ADMIT Partner Countries

Country	Policies	Practices
Türkiye	The Turkish Higher Education Council published the 'Ethical Guide on the Use of Generative Artificial Intelligence in Scientific Research and Publication Activities in Higher Education Institutions' in May 2024 (uploaded as a PDF). Additionally, the Ministry of Interior established the 'Ethical Conduct Principles for Public Officials in the Use of Artificial Intelligence Systems' on September 10, 2024, which has been sent to all public institutions, including universities (uploaded as a PDF). These guidelines are all advisory.	The 'Artificial Intelligence Academic Thesis Program' (ATP) is being launched in collaboration between the Higher Education Council and the Presidency of Defense Industries in October 2024. Through ATP, artificial intelligence in the defense industry will be addressed as senior projects at the undergraduate level and as thesis work at the graduate level in universities. The program aims to enhance competencies in the field of artificial intelligence within the defense industry, contribute to meeting the sector's need for qualified human resources, and foster strong collaboration between academia and industry in the field of artificial intelligence.
Germany	AI-Act, AI action plan of the Federal Ministry of Education and Research, Region North Rhine-Westphalia: KI-Taskforce	Implement LLMs at the universities (different provider), funding of specific projects to expand the level of research and knowledge in the field of AI (like the AI-Campus, https://ki-campus.org/about)
Greece	There aren't any.	Since Thursday, August 1st, the landmark law of the European Union on Artificial Intelligence (AI) has been in effect. The AI regulation was designed to ensure that AI developed and used in the EU is trustworthy, with safeguards to protect the fundamental rights of citizens. However, no official law (FEK) has been published in Greece so far regarding the AI Act. Beyond this, while it does not specifically focus on generative AI systems, a related Greek law that should be mentioned here is FEK 146/A/27-7-20224961/2022 on emerging information and communication technologies, which introduced rules and obligations for employers when using AI systems that in any way affect decisions relating to employees, impacting their working conditions, selection, etc.
Finland	The Finnish National Board on Research Integrity's guidelines for responsible conduct of research and procedures for handling allegations of misconduct in Finland has no mentions of use of LLMs or Generative AI tools in higher education. When asked (October 2024), we were told that there are guidelines 'in progress'.	There are none in nationwide level.
Cyprus	There is a national strategy for Artificial Intelligence which adopts the EU guidelines for AI. The strategy emphasizes the need for a national policy based on the existing EU guidelines and lists various ethical issues that need to be secured. On December 2023 the EU voted rules for AI that are binding and will apply within two years.	I am not aware of any practices applying nationwide.
Netherlands	Yes, there is Government-based AI regulation, the "AI-Verordening". It explains rules and regulations regarding use of Generative AI in business etc. It is based on the EU regulation.	I know of none, but I assume they should be derived from the "AI-verordening"

United Kingdom	Yes, there are several national policies and advisory documents related to the use of large language models (LLMs) and Generative AI tools in education across the UK. England, Northern Ireland, and Wales: The QAA (Quality Assurance Agency for Higher Education), which provides standards and frameworks to maintain academic quality in the UK, has curated a range of resources on Generative AI. These resources aim to help the education sector use Generative AI as a positive tool while maintaining academic standards. The resources are funded through QAA Membership fees and are publicly available for the benefit of the sector. More information can be found on the QAA website. Additionally, the QAA has published supplementary advice on Generative Artificial Intelligence tools, providing further guidance to ensure AI is used ethically in education. The Scottish Qualifications Authority (SQA) has conducted a consultation survey on the use of Generative AI in education, with a particular focus on the impact of AI on assessments. The results of this consultation represent the first stage in a broader dialogue on the subject. html The SQA has also developed specific guidance on "Generative artificial intelligence (AI) in assessments" to further shape its use in Scottish education. Department for Education (DfE): The Department for Education has released a policy paper outlining its position on the use of Generative AI, including LLMs like ChatGPT or Google Bard, within the education sector. This document provides a clear framework for educational institutions on the ethical and practical use of such technologies. UKRI (UK Research and Innovation): The UKRI has published a policy that directly impacts the use of Generative AI in research funding processes. Assessors, reviewers, and panellists are explicitly prohibited from using Generative AI tools in their assessment activities. Furthermore, applicants are advised to apply caution when using these tools, particularly regarding issues of bias and data protection. Please note that the policies and guidelines mentioned vary between advisory and binding, depending on the institution and context.	At present, we are not aware of any nationwide practices specifically addressing the use of large language models (LLMs) or Generative AI tools in the UK.
Spain	There is a Guide on the Use of Artificial Intelligence in Education. In Spain, as a member of the European Union, the regulation of Artificial Intelligence, especially generative intelligence, is determined on the one hand by European regulations in this area and their adaptation to domestic legislation. Thus, we find ourselves with: - Organic Law on the Protection of Personal Data and Guarantee of Digital Rights (LOPDGDD,	As far as we know, all HE institutions are working on that. We can search at their portals what are they doing, but mainly are: conferences, seminars, showcase some practices, guidelines, frameworks, tips, opinion blogs, etc. The Spanish Government has developed an Artificial Intelligence Strategy for 2024. Among its main lines of action is the action aimed at fostering talent in AI (lever 4) within Axis 1 of

	https://www.boe.es/buscar/act.php?id=BOE-A-2018-16673), which establishes the basic principles of privacy and data security in the processing of personal data, especially in the field of education, since sensitive student and teacher information is handled, as well as requiring the informed consent of the interested parties (students, teachers, tutors, etc.) when processing their data, including those that may be used by AI systems. - The above legislation derives from the General Data Protection Regulation (GDPR) of the European Union, which complements the previous law, establishes a common framework of protection throughout the European Union and establishes the basic principles of data protection, as well as the fundamental rights of individuals in the processing of their data. - The EU's Artificial Intelligence Act has a particular impact on education in the following areas: o The law encourages ethical and responsible AI research, meaning universities must integrate ethical principles into their projects and study programmes. o It obliges those areas of education related to AI to adapt to include knowledge about the regulation, ethics and social implications of this technology. o The use of AI tools in education, such as intelligent tutoring systems or content generators, will have to comply with regulations, especially about protecting student data. o The law encourages the development of digital skills in students, which means that universities will have to provide training in AI and the responsible use of these technologies. o Universities will have to establish ethics committees to evaluate AI research and development projects and ensure compliance with regulations. o University teaching and administrative staff should receive training on AI regulations and their implications for the institution. -Organic Law 3/2020, of 29 December, amends Organic Law 2/2006, of 3 May, on Education (LOMLOE). It promotes the incorporation of new technologies in the educational process, although no direct mention is made of any regulations about Artificial Intelligence. It also establishes the principles of equity and accessibility in the use of technologies, making it necessary to consider the inequalities that may arise from using AI. - From the perspective of data security and information systems, Spain has the National Security Scheme (ENS), which entails the need to apply risk management to the possible vulnerabilities of Artificial Intelligence systems, as well as to have AI systems that guarantee the transparency and traceability properties of AI through the use of explainable algorithms and regular audits to ensure regulatory compliance and	reinforcing the key levers for the development of AI. Regarding teacher training and its use in the classroom, INTEF has created several MOOC courses to address these issues and promote the development of teachers' digital competences, such as: https://enlinea.intef.es/courses/course-v1:INTEFMOOC+IAEducacion+2023_T1/about

	the effectiveness of the security measures implemented.	
Switzerland	There aren't any	There aren't any

3.7. Findings from Interviews

3.7.1. Administrators

3.7.1.1. Theme 1: Awareness

Individual Level: Many administrators reported a personal effort to stay informed about AI capabilities, often relying on self-initiated exploration due to limited institutional guidance. For example, an administrator mentioned, "*I don't think that staff, for example, are sufficiently aware of the potential that such tools can offer*," highlighting an individual need to understand AI independently. Similarly, another administrator remarked, "*I've read articles and attended some webinars, but mostly out of personal interest. There hasn't been structured support to build awareness at the university level*."

Institutional Level: Awareness varied significantly across institutions, with informal knowledge exchange emerging as a prominent theme. At one of the partner universities, awareness depended largely on proactive faculty members rather than a coordinated institutional approach, with one administrator noting, "*The more academics use [AI] and try to share it... the more awareness increases*." An administrator echoed this decentralized approach, stating, "*We see individual departments exploring AI, but there is no overarching policy guiding us on its educational potential*." This sentiment was further reflected at another partner university, where an administrator shared, "*We've had discussions about AI at a faculty level, but there is no formal strategy to disseminate knowledge or provide training*."

National Level: Few institutions reported comprehensive national-level guidance on AI use, though administrators expressed a strong desire for such frameworks. One of the representatives referenced the limited scope of existing policies, saying, "*The Council of Higher Education has published a guide on ethical use, but it is only a guideline*," which highlights a gap between national policies and institutional needs. An administrator from another university also expressed a need for more national support, stating, "*We look to government guidelines for ethical AI use, but they remain quite general and don't address the unique challenges in higher education*."

3.7.1.2. Theme 2: Purpose of using them

Individual Level: Administrators and faculty members primarily engage with LLMs and Generative AI on an experimental basis. An administrator shared, "*The solutions are those available... I have tried ChatGPT, but nothing very advanced*," indicating a cautious, exploratory approach. An administrator mentioned using AI tools for basic tasks, explaining, "*I experiment with AI for drafting and quick edits, but it's not yet integrated into my core work*."

Institutional Level: Institutional applications of AI varied widely and were often in pilot phases or confined to specific departments. For example, one partner university is exploring AI tools for grading and question generation. Similarly, another university piloted AI projects within specific research groups, with an administrator noting, "*We need to make sure research results are shared institution wide*." Another university representative also highlighted early-

stage uses, with one administrator stating, "*We are looking at using AI for tutoring support, but it's still in the preliminary phases*."

National Level: National policies generally provided limited support for structured institutional usage of AI. One of the partner universities raised concerns about dependency on foreign tech companies for AI infrastructure, with an administrator explaining, "*We need to carefully analyze what unwanted consequences come with these tools, such as further strengthening dependencies from big tech*." Similarly, an administrator expressed, "*National policies offer little support for integrating AI into our curriculum, and we are left to navigate these challenges independently*."

3.7.1.3. Theme 3: Opportunities and challenges

Individual Level: Opportunities to improve workflow and enhance productivity through AI were frequently mentioned. An administrator noted, "*AI could free up people's working time*," allowing more focus on complex tasks. However, administrators also expressed concerns about over-reliance, as described by another administrator who said, "*AI might lead to superficial understandings without delving deeper*." Another one added, "*There is a risk of relying too much on AI for routine work, which could reduce our critical engagement with information*."

Institutional Level: Institutions acknowledged both the potential and challenges of AI implementation, including privacy and security issues. One of the universities cited data privacy as a significant limitation, with the head of digital transformation saying, "*It's the data protection and security that I see as the limiting factors*." At another university, an administrator similarly remarked, "*Data security remains a major hurdle, and without secure platforms, we can't fully explore AI's potential in education*." One of the representatives noted resistance among administrative staff, with an administrator sharing, "*Many staff are hesitant to adopt new AI tools; there's a comfort in familiar methods that's hard to change*."

National Level: At the national level, challenges included the lack of structured support and collaboration opportunities across institutions. One director mentioned the need for a more coordinated approach to AI policy. Another university's representative emphasized the need for a national strategy, with an administrator stating, "*We should prepare students for lifelong learning in a continuously evolving tech landscape,*" indicating a call for national support in fostering adaptive learning skills.

3.7.2. IT/Teaching and learning support services

3.7.2.1. Theme 1: Awareness

Individual Level: Awareness of LLMs and Generative AI varies widely among support staff, often tied to personal research and experience. A support staff member shared, "*I can say that I'm quite familiar; I've read certain articles, watched videos, and used some of these tools*," highlighting individual initiative. Similarly, a staff member from another university mentioned, "*I use AI to brainstorm, check concepts, and ensure my own understanding of complex topics*," emphasizing personal experimentation to grasp the potential of AI tools.

Another support staff member noted, "*We are starting to use AI tools in subtitling and indexing videos, which has given me insight into its practical applications*."

Institutional Level: Institutions are generally in the early stages of formalizing awareness around AI capabilities. A staff member remarked, "*Efforts to organize a framework or initiative within our university seem non-existent*," highlighting limited institutional-level guidance. Another university staff also echoed this sentiment stating, "*We see some departments leading in AI initiatives, but a coordinated institutional strategy is still lacking*." At another university, a staff member pointed out, "*We have colleagues who run workshops on AI use for students, but overall, there's room for improvement in bringing AI discussions to administrative areas*."

National Level: Some institutions benefit from national or international guidance. One of the partners referenced national frameworks, with one participant stating, "*We rely on open-source solutions and guidance from national policy discussions, but more tailored support is needed*." A staff member from another university highlighted similar concerns, saying, "*While there are EU-level guidelines, they are too broad for our specific institutional needs*." Meanwhile, another university staff emphasized the importance of collaboration: "*Sharing best practices among universities is crucial to stay informed and navigate these rapidly evolving technologies*."

3.7.2.2. Theme 2: Purpose of using them

Individual Level: IT and support staff mainly engage with AI for personal experimentation and localized applications. A staff member remarked, "*We produce workshops to master prompts and generate teaching material like quizzes*," showcasing hands-on engagement. Similarly, at another partner university, a staff member described using AI for task automation: "*I create microlearning modules with AI tools to support personalized learning and assessment strategies*." At another one, staff members mentioned leveraging AI tools for subtitling videos, noting, "*It's an efficient way to create transcripts and support accessibility.*"

Institutional Level: Institutions are exploring potential AI applications but face challenges in scaling integration. One of the universities is investigating tools for its e-learning platform, but as one staff member explained, "*Cost is a big barrier to implementing AI solutions university-wide.*" At another university, a staff member shared, "*We have implemented AI-generated quizzes in a few modules, but scaling this approach to other departments requires more resources.*" Another university noted the development of an experimental environment to test AI applications, with one staff member commenting, "*We are piloting AI plug-ins in Moodle to enable secure and flexible integration for educational purposes*."

National Level: Support staff recognize the potential for AI to align with broader educational objectives, though national policies often lack specificity. A participant expressed, "*National frameworks on AI are evolving, but institutions are left to adapt them independently, creating gaps in implementation.*" Similarly, a staff member from another university remarked, "*State-level discussions on AI are promising, but concrete support for integrating these technologies into education is still limited*."

3.7.2.3. Theme 3: Opportunities and challenges

Individual Level: Staff see AI as a tool to enhance efficiency and provide better support to learners. A staff member noted, "*AI enables us to automate repetitive tasks, freeing up time to focus on more strategic goals*." However, concerns persist about over-reliance. At another university, a participant stated, "*AI tools are promising, but we must ensure they are used ethically and do not replace critical thinking in educational contexts*."

Institutional Level: Institutions face challenges with data privacy, resource allocation, and resistance to change. A staff member highlighted, "*Data protection concerns are a significant barrier to adopting AI tools across departments*." Similarly, another university reported the cost of implementation as a major obstacle. At another one, a participant described resistance to AI adoption among administrative staff, saying, "*The biggest hurdle is convincing teams to step out of their comfort zones and embrace new technologies*."

National Level: National frameworks are critical to addressing broader challenges, including digital divides and ethical concerns. A staff member emphasized, "*We need clearer regulations on ethical AI use to avoid potential misuse in educational settings*." Another university echoed the need for collaboration: "*Universities must work together to share knowledge and develop responsible AI practices that benefit all*."

3.7.3. Teachers

3.7.3.1. Theme 1: Awareness

Individual Level: Teachers exhibited a range of familiarity with LLMs and Generative AI, often stemming from personal curiosity or informal exploration. For example, a teacher noted, "*I try out ChatGPT a bit, but at the moment it still has a very unstructured character*," indicating that knowledge acquisition is exploratory and based on individual interest.

Institutional Level: Awareness varies widely across institutions, with some supporting awareness-building efforts through informal seminars and guidelines. A teacher shared, "*There are informational seminars, but no institutional strategy in this direction,*" suggesting that while awareness initiatives exist, they are not systematically integrated into institutional strategy. A teacher from another university added, "*There are some discussions happening, but no formal structure or workshops for the broader faculty—it's more of an individual interest or initiative*."

National Level: Nationally, there is a recognized need for broader, structured guidance. Some institutions reported receiving national guidance documents, but these documents remain broad. A teacher mentioned, "*We have general guidelines, but these are not specific to AI applications in education*," highlighting the gap between national-level policies and the specific needs of educational institutions. A teacher from another university noted, "*There are national policy papers, but they are very general, and institutions often have to figure out AI's role on their own*."

3.7.3.2. Theme 2: Purpose of using them

Individual Level: Teachers often use AI experimentally in teaching, mostly for content creation or activity design. For instance, a teacher incorporated AI into course activities, stating, "*We use AI to generate test questions and interactive activities*," showcasing how teachers are beginning to use AI to support instructional content creation. A teacher from another university explained, "*I use AI for brainstorming ideas for new teaching content or designing activities, especially in courses with large enrollments*."

Institutional Level: Institutional use of AI is generally limited to specific applications or pilot projects. For example, one of the universities uses a chatbot for student support, with a teacher noting, "*As far as I know, AI is currently only used in student support services*." These limited applications indicate that while institutions recognize AI's potential, they are still in the early stages of integrating it fully into the educational process.

National Level: At the national level, there is an interest in supporting AI integration to align with strategic educational goals, but practical applications remain limited. A teacher mentioned, "*National guidelines are evolving, but direct applications in education are few*," highlighting a need for more concrete national support in implementing AI in specific educational contexts. Similarly, a teacher from another university commented, "*There's national interest in AI for education, but most of the work is still in early stages, with limited national-level support*."

3.7.3.3. Theme 3: Opportunities and challenges

Individual Level: Teachers see potential in AI for enhancing efficiency in teaching and providing personalized learning. A teacher remarked, "*AI can help save time on repetitive tasks, allowing more focus on complex instructional planning*." However, teachers also expressed concerns about over-reliance on AI potentially diminishing students' critical thinking skills.

Institutional Level: Institutions face challenges with data privacy, ethical concerns, and resistance to change. The following example illustrates these issues, as one teacher explained, "*Data protection and ethical considerations slow down AI implementation*." Additionally, there is resistance among faculty members to adopt new AI-driven tools, with a teacher noting that "*staff hesitate to engage with new technology*," indicating an ongoing need for support and training to facilitate AI adoption.

National Level: National guidelines are essential to address challenges like digital divides and environmental concerns. A staff member highlighted AI's environmental impact, emphasizing the need for "*locally based data centers to reduce AI's carbon footprint."* Additionally, there is a call for more comprehensive national frameworks to foster equitable access and informed usage, as seen in a suggestion that "*national strategies should support institutions in managing AI responsibly*."

3.7.4. Students

3.7.4.1. Theme 1: Awareness

Individual Level: Students' familiarity with LLMs and Generative AI varies significantly. Many students noted a basic understanding driven by personal exploration. A student commented, "*I use ChatGPT now and then, mainly for study-related tasks, but I'm still trying to grasp its broader possibilities*." Similarly, a student from another university mentioned, "*I know some AI tools, but I'm cautious—I double-check everything AI provides due to accuracy concerns*."

Institutional Level: Institutional awareness often appears limited and inconsistent, with understanding dependent on individual faculty interest. A student noted, "*Awareness of AI here varies by department; some professors are deeply interested, while others don't engage at all*." A student from another university added, "*There's some information shared in certain courses, but nothing comprehensive across the university*." Similarly, a student from another university expressed, "*The university hasn't provided formal training on AI; what I know, I learned independently*."

National Level: Students observed some national-level discussions on AI, but guidance on educational integration remains broad. A student noted, "*There's definitely a national conversation happening around AI, but we don't yet see clear applications for education*." This sentiment is echoed by a student who remarked, "*There's talk of AI in educational policy, but specific uses in our studies aren't outlined yet*."

3.7.4.2. Theme 2: Purpose of using them

Individual Level: Students frequently use AI tools to assist with tasks like content creation, language refinement, and generating ideas. A student shared, "*I use AI to organize my thoughts and improve my writing, especially when drafting papers*." A student from another university added, "*It's helpful for brainstorming ideas and overcoming writer's block, making the process smoother*." Similarly, another student from one of the partner universities mentioned using AI for "*quick translations and to get an initial draft for academic work*."

Institutional Level: Institutional AI use remains limited and primarily experimental, with certain departments engaging in small pilot projects. A student noted, "*AI is mostly used in administrative support, not yet for teaching or learning*." Some other students from different universities described similar experiences, with one stating, "*Some departments are using AI in research, but it's not available to all students*." One of the universities similarly reported, "*Our institution hasn't fully integrated AI into the curriculum, though there are discussions about its potential uses*."

National Level: On a national level, students expressed interest in AI-supported learning but noted a lack of structured educational initiatives. A student commented, "*Nationally, there's interest in AI's educational role, but it's still mostly theoretical rather than practical*."

3.7.4.3. Theme 3: Opportunities and challenges

Individual Level: Students see AI as a valuable tool for efficiency and personalized learning support. A student said, "*AI can make learning materials more accessible, offering*

opportunities for those who may have limited resources." Similarly, a student from another university highlighted AI's potential for inclusivity: "*AI could provide equal access to quality study resources for all students with internet access*." However, concerns about academic integrity and over-reliance were also raised. Another student mentioned, "*I double-check AI outputs to avoid plagiarism and ensure it aligns with my understanding*."

Institutional Level: Institutions face significant challenges around privacy, ethics, and resource limitations. A student observed, "*Data protection is a huge obstacle… without clear privacy standards, using AI feels risky*." The financial aspect of AI was also highlighted, with another student noting, "*Premium AI tools can be costly, which limits access for students who can't afford these features*." A student from another university added, "*More funding is needed for AI tools to be accessible to everyone, not just those who can pay*."

National Level: On a national scale, students hope for ethical guidelines and policies to make AI resources equitable and safe. A student stated, "*Ethical guidelines would help prevent misuse and ensure responsible AI integration in education*," emphasizing the need for a unified, national approach to AI in learning. A student from another university echoed this sentiment, adding, "*AI could reduce educational disparities if it's made accessible and used responsibly, with national support for equal access*."

4. Conclusions

This section details the main findings, limitations, and recommendations in relation to the reported trends in policies and practices on the use of LLM and generative AI in the partnership, year 2024.

4.1. Main findings

The report provides a snapshot of the current state of LLMs and generative AI policies and practices within the partnership in the first year. It indicates that while there is a growing interest and engagement with these technologies, there are also significant variations in understanding and implementation among different stakeholders.

At the individual level, awareness of LLMs and Generative AI is often driven by personal curiosity and informal exploration. Teachers and students frequently rely on self-initiated learning through online resources, articles, or experimenting with AI tools like ChatGPT. However, this learning is uneven, with some individuals exhibiting deep familiarity while others remain unaware or hesitant. For example, IT/support staff at some institutions expressed a need for structured training to bridge the awareness gap. Individuals primarily use AI tools for task-specific applications. Students engage with AI for content generation, brainstorming ideas, and refining academic work, while teachers use AI experimentally for creating instructional materials and assessments. IT staff often focus on troubleshooting and piloting AI tools within specific projects. These uses highlight the early stages of adoption, with individuals exploring AI's capabilities rather than relying on it systematically. Individuals see AI as a tool for enhancing productivity, saving time on repetitive tasks, and providing personalized support to learners. However, concerns include over-reliance on AI, potential loss of critical thinking skills, and ethical dilemmas around originality and plagiarism. IT/support staff particularly emphasized the need for secure and reliable AI systems to address data privacy concerns.

Awareness *at the institutional level* is inconsistent and often dependent on the efforts of specific departments or faculty members. Students are less familiar with institutional policies and practices compared to teachers, IT/support staff, and administrators. While some institutions provide informal workshops or encourage knowledge-sharing initiatives, many lack a coordinated strategy to raise awareness about AI's potential across all levels. For example, some universities have initiated discussions about AI but have yet to integrate these into broader institutional practices. Institutional applications of AI remain limited to pilot projects or isolated initiatives. Common uses include AI-driven chatbots for student support, Moodle plug-ins for teaching, and automation in administrative workflows. These applications are often experimental, and institutions face challenges in scaling their use due to financial and technical constraints. Institutions recognize AI's potential to streamline administrative processes, support teaching and learning, and enhance student engagement. However, challenges include data privacy issues, ethical concerns, resistance to change among staff, and the need for resource allocation. Institutions also struggle to establish frameworks to ensure equitable access to AI tools across departments.

National-level awareness of AI technologies often manifests through policy discussions and general guidelines. However, these are typically broad and do not address the specific needs of higher education. Institutions report a lack of tailored support or collaboration opportunities facilitated by national frameworks. National policies on AI integration remain underdeveloped, focusing more on ethical considerations and data security than on actionable strategies for educational contexts. While some governments support pilot projects and initiatives, institutions often navigate AI integration independently without substantial national support. National policies have the potential to create equitable frameworks for AI integration, fostering collaboration among institutions and addressing systemic barriers like the digital divide. However, current challenges include insufficient funding, lack of standardized practices, and limited infrastructure to support sustainable AI adoption in education.

4.2. Limitations

This study serves as a preliminary analysis on the level of awareness, educational purposes, opportunities, and challenges associated with the use of LLMs or Generative AI tools in individual, institutional and national levels in the ADMIT Project consortium. Although it was stated in the Project Proposal that qualitative data would be collected and analysed, both quantitative and qualitative data were utilized to better explore and map policies and practices related to the use of LLMs and generative AI in learning activities, courses, and leadership within the ADMIT Project consortium. To increase the generalizability of the study, future research could place more emphasis on quantitative data. Additionally, variations in sample sizes across stakeholders and universities may limit the generalizability of the quantitative data. Therefore, similar sample sizes should be ensured in future years.

In addition to the data collected from students, teachers, administrators, and support staff, a short questionnaire was prepared and distributed to partner institutions. The aim was to gather further information on current policies and practices regarding the use of LLMs and Generative AI tools. Each partner was asked to conduct a brief review of their country and institution to ensure an accurate and up-to-date reflection of relevant policies and practices. The collected data is presented in Table 9 and Table 10. However, it is important to note that this data is limited to the responses provided by representatives of the ADMIT partners. There may be additional policies in place at each institution and in each country that are not captured in this report.

4.3. Future Work

The findings obtained from the open-ended questions in the survey and individual interviews appear to be similar and repetitive in nature. In this regard, to capture the perspectives of a wide range of students, teachers, administrators, and IT/Support staff groups, it is recommended that for the second and third years of the project, data collection should focus more on quantitative data rather than individual interviews, with qualitative data being gathered only through the open-ended questions included in the questionnaire.

Appendix A.

Questionnaire for ADMINISTRATION/UNIVERSITY MANAGEMENT

The Use of Large Language Models (LLMs) and Generative AI in Education

This questionnaire is prepared as a part of EU co-funded project, titled as "generative Ai anD large language Models In higher educaTion", shortly ADMIT (https://admit.eadtu.eu/). The questionnaire intends to collect data from different stakeholders (students, teachers, administrators, staff) of partner higher education institutions to understand the current landscape, challenges, and opportunities associated with the use of Large Language Models (LLMs) and Generative AI tools, such as ChatGPT. The information gathered from this questionnaire will contribute to a broader understanding of the practical applications, policy implications, and future directions of LLMs and Generative AI tools in higher education.

In this questionnaire, policy is defined as a set of rules, standards, principles, guidelines, procedures, regulations, plans concerning a specific topic adapted by an organization (governments, institutions) or an individual that provides a framework for practice. On the other hand, practice refers to any kind of actions, applications, or implementations. The concepts of Generative AI and LLMs are considered artificial intelligence (AI) based content-creation technologies, such as ChatGPT, designed to understand, generate, and work with human language.

The questionnaire will take approximately 15-20 minutes to complete. Please answer all questions as honestly and accurately as possible. There are no right or wrong answers; we are interested in your experiences and perspectives. Some questions are open-ended to allow you to provide more detailed responses.

Thank you once again for your valuable contribution to this research. Your input will play a crucial role in shaping the future of education in the context of emerging AI technologies.

ADMIT Project Team

*I hereby acknowledge my acceptance of the [consent form] and express my willingness to participate in the study.

Yes

No

(The questionnaire will be displayed when the response is 'YES'.)

General Information

Name of the institution: …….

Your position: ……

Academic Degree: (multiple choice)

Associate

Bachelor's

Master's

Doctorate/PhD

1. **Are you familiar with LLMs and Generative AI?**

Yes, very familiar

Yes, somewhat familiar

No, not very familiar

No, not familiar at all

(No follow up -open ended- needed)

2. **Have you received any training (formal or informal course, etc.) or support (teacher/expert/peer guidance, learning resources, etc.) related to the use of LLMs or Generative AI tools?**

Yes, extensive training/support

Yes, some training/support

No, but I would like to receive training/support

No, and I don't think I need training/support

(The following item will appear for the ones who answer "Yes")

Please specify details about the training or support you received (Open-ended)

Individual Level

3. Do you use LLMs or Generative AI tools in teaching, learning, or research?

Yes, I frequently use

Yes, I occasionally use

No, but planning to use

No, I don't use

(The following item will appear for the ones who answer "Yes")

Please specify details about these practices. (Open-ended)

4. **Do you follow specific standards, rules, or policies while using LLMs or Generative AI tools in teaching, learning, or research?**

Yes, I strictly follow

Yes, I somewhat follow

I do not follow them strictly

No, I do not follow them

(The following item will appear for the ones who answer "Yes")

Please specify details about these standards, rules, or policies. (Open-ended)

Institutional Level (Your university)

5. **Are there any institutional practices (e.g. virtual assistant, automated grading, personalized learning, etc.) regarding the use of LLMs or Generative AI tools in your institution?**

   Yes, there are quite a number of practices

   Yes, there are a few practices

   No, but plans and discussions regarding the practices are ongoing

   No, there are no plans or discussions regarding practices

   I have no idea

   (The following item will appear for the ones who answer "Yes")

   Please specify the details about institutional practices. (Open-ended)

6. **Are there any institutional policies (rules, standards, recommendations, guidelines, regulations, etc.) in your institution related to the use of LLMs or Generative AI tools?**

   Yes, clearly defined policies

   Yes, vaguely defined policies

   No, but policies are still being considered

   No policies exist at the moment

   I have no idea

   (The following item will appear for the ones who answer "Yes")

   Please specify details about institutional policies. You are also welcome to add a link to relevant web pages if you know them. (Open-ended)

National Level

7. **Are there any nationwide practices regarding the use of LLMs or Generative AI tools in your country?**

   Yes, there are quite a number of practices

   Yes, there are a few practices

   No, but plans and discussions regarding the practices are ongoing

   No, there are no plans or discussions regarding practices

   I have no idea

(The following item will appear for the ones who answer "Yes")

Please specify the details about national practices. (Open-ended)

8. **Are there any national policies in your country related to the use of LLMs or Generative AI tools in education?**

   Yes, clearly defined policies

   Yes, vaguely defined policies

   No, but policies are being developed

   No policies exist at the moment

   I have no idea

   (The following item will appear for the ones who answer "Yes")

   Please specify details about relevant national policies in your country. You are also welcome to add a link to relevant web pages if you know them. (Open-ended)

Opportunities, Challenges and Others

9. **What benefits/positive outcomes have you observed/ do you predict from using LLMs or Generative AI tools? (Open-ended)**

10. **What challenges (technical, ethical, pedagogical) if any, have you faced/do you oversee in using LLMs or Generative AI tools in education? (Open-ended)**

11. **Additional comments or suggestions (Open-ended)**

We would like to have a short (15-20 min) interview with you about the topics raised in this questionnaire. If you accept, please write your e-mail address. E-mail addresses will be used solely for scheduling the interview and will not be shared with external parties. (open ended) (optional)

Appendix B.

Questionnaire for IT/TEACHING AND LEARNING SUPPORT SERVICES

The Use of Large Language Models (LLMs) and Generative AI in Education

This questionnaire is prepared as a part of EU co-funded project, titled as "generative Ai anD large language Models In higher educaTion", shortly ADMIT (https://admit.eadtu.eu/). The questionnaire intends to collect data from different stakeholders (students, teachers, administrators, staff) of partner higher education institutions to understand the current landscape, challenges, and opportunities associated with the use of Large Language Models (LLMs) and Generative AI tools, such as ChatGPT. The information gathered from this questionnaire will contribute to a broader understanding of the practical applications, policy implications, and future directions of LLMs and Generative AI tools in higher education.

In this questionnaire, policy is defined as a set of rules, standards, principles, guidelines, procedures, regulations, plans concerning a specific topic adapted by an organization (governments, institutions) or an individual that provides a framework for practice. On the other hand, practice refers to any kind of actions, applications, or implementations. The concepts of Generative AI and LLMs are considered artificial intelligence (AI) based content-creation technologies, such as ChatGPT, designed to understand, generate, and work with human language.

The questionnaire will take approximately 15-20 minutes to complete. Please answer all questions as honestly and accurately as possible. There are no right or wrong answers; we are interested in your experiences and perspectives. Some questions are open-ended to allow you to provide more detailed responses.

Thank you once again for your valuable contribution to this research. Your input will play a crucial role in shaping the future of education in the context of emerging AI technologies.

ADMIT Project Team

*I hereby acknowledge my acceptance of the [consent form] and express my willingness to participate in the study.

Yes

No

(The questionnaire will be displayed when the response is 'YES'.)

General Information

Name of the institution: …….

Name of the Department: ……..

Your position: ……

Academic Degree: (multiple choice)

Associate

Bachelor's

Master's

Doctorate/PhD

1. **Are you familiar with LLMs and Generative AI?**

   Yes, very familiar

   Yes, somewhat familiar

   No, not very familiar

   No, not familiar at all

   (No follow up -open ended- needed)

2. **Have you received any training (formal or informal course, etc.) or support (teacher/expert/peer guidance, learning resources, etc.) related to the use of LLMs or Generative AI tools?**

   Yes, extensive training/support

   Yes, some training/support

   No, but I would like to receive training/support

   No, and I don't think I need training/support

   (The following item will appear for the ones who answer "Yes")

   Please specify details about the training or support you received (Open-ended)

Individual Level

3. **Do you use LLMs or Generative AI tools in teaching, learning, or research?**

   Yes, I frequently use

   Yes, I occasionally use

   No, but planning to use

   No, I don't use

   (The following item will appear for the ones who answer "Yes")

   Please specify details about these practices. (Open-ended)

4. **Do you follow specific standards, rules, or policies while using LLMs or Generative AI tools in teaching, learning, or research?**

Yes, I strictly follow

Yes, I somewhat follow

I do not follow them strictly

No, I do not follow them

(The following item will appear for the ones who answer "Yes")

Please specify details about these standards, rules, or policies. (Open-ended)

Institutional Level (Your university)

5. **Are there any institutional practices (e.g. virtual assistant, automated grading, personalized learning, etc.) regarding the use of LLMs or Generative AI tools in your institution?**

   Yes, there are quite a number of practices

   Yes, there are a few practices

   No, but plans and discussions regarding the practices are ongoing

   No, there are no plans or discussions regarding practices

   I have no idea

   (The following item will appear for the ones who answer "Yes")

   Please specify the details about institutional practices. (Open-ended)

6. **Are there any institutional policies (rules, standards, recommendations, guidelines, regulations, etc.) in your institution related to the use of LLMs or Generative AI tools?**

   Yes, clearly defined policies

   Yes, vaguely defined policies

   No, but policies are still being considered

   No policies exist at the moment

   I have no idea

   (The following item will appear for the ones who answer "Yes")

   Please specify details about institutional policies. You are also welcome to add a link to relevant web pages if you know them. (Open-ended)

National Level

7. **Are there any nationwide practices regarding the use of LLMs or Generative AI tools in your country?**

   Yes, there are quite a number of practices

   Yes, there are a few practices

No, but plans and discussions regarding the practices are ongoing

No, there are no plans or discussions regarding practices

I have no idea

(The following item will appear for the ones who answer "Yes")

Please specify the details about national practices. (Open-ended)

8. **Are there any national policies in your country related to the use of LLMs or Generative AI tools in education?**

   Yes, clearly defined policies

   Yes, vaguely defined policies

   No, but policies are being developed

   No policies exist at the moment

   I have no idea

   (The following item will appear for the ones who answer "Yes"

   Please specify details about relevant national policies in your country. You are also welcome to add a link to relevant web pages if you know them. (Open-ended)

Opportunities, Challenges and Others

9. **What benefits/positive outcomes have you observed/ do you predict from using LLMs or Generative AI tools? (Open-ended)**

10. **What challenges (technical, ethical, pedagogical) if any, have you faced/do you oversee in using LLMs or Generative AI tools in education? (Open-ended)**

11. **Additional comments or suggestions (Open-ended)**

We would like to have a short (15-20 min) interview with you about the topics raised in this questionnaire. If you accept, please write your e-mail address. E-mail addresses will be used solely for scheduling the interview and will not be shared with external parties. (open ended) (optional)

Appendix C.

Questionnaire for TEACHERS

Use of Large Language Models (LLMs) and Generative AI in Education

This questionnaire is prepared as a part of EU co-funded project, titled as "generative Ai anD large language Models In higher educaTion", shortly ADMIT (https://admit.eadtu.eu/). The questionnaire intends to collect data from different stakeholders (students, teachers, administrators, staff) of partner higher education institutions to understand the current landscape, challenges, and opportunities associated with the use of Large Language Models (LLMs) and Generative AI tools, such as ChatGPT. The information gathered from this questionnaire will contribute to a broader understanding of the practical applications, policy implications, and future directions of LLMs and Generative AI tools in higher education.

In this questionnaire, policy is defined as a set of rules, standards, principles, guidelines, procedures, regulations, plans concerning a specific topic adapted by an organization (governments, institutions) or an individual that provides a framework for practice. On the other hand, practice refers to any kind of actions, applications, or implementations related to using LLMs or Generative AI. The concepts of Generative AI and LLMs are considered artificial intelligence (AI) based content-creation technologies, such as ChatGPT, designed to understand, generate, and work with human language.

The questionnaire will take approximately 15-20 minutes to complete. Please answer all questions as honestly and accurately as possible. There are no right or wrong answers; we are interested in your experiences and perspectives. Some questions are open-ended to allow you to provide more detailed responses.

Thank you once again for your valuable contribution to this research. Your input will play a crucial role in shaping the future of education in the context of emerging AI technologies.

ADMIT Project Team

*I hereby acknowledge my acceptance of the [consent form] and express my willingness to participate in the study.

Yes

No

(The questionnaire will be displayed when the response is 'YES'.)

General Information

Name of the Institution:

Department or field of study:

Number of years in teaching:

Academic Title: (multiple choice)

Lecturer/University teacher

Assistant Professor

Associate Professor

Full Professor

Other

1. **Are you familiar with LLMs and Generative AI?**

   Yes, very familiar

   Yes, somewhat familiar

   No, not very familiar

   No, not familiar at all

   (No follow up -open ended- needed)

2. **Have you received any training (formal or informal course, etc.) or support (teacher/expert/peer guidance, learning resources, etc.) related to the use of LLMs or Generative AI tools?**

   Yes, extensive training/support

   Yes, some training/support

   No, but I would like to receive training/support

   No, and I don't think I need training/support

   (The following item will appear for the ones who answer “Yes”)

   Please specify details about the training or support you received (Open-ended)

Individual Level

3. **Do you use LLMs or Generative AI tools in teaching, learning, or research?**

   Yes, I frequently use

   Yes, I occasionally use

   No, but planning to use

   No, I don’t use

   (The following item will appear for the ones who answer “Yes”)

   Please specify details about these practices. (Open-ended)

4. **Do you follow specific standards, rules, or policies while using LLMs or Generative AI tools in teaching, learning, or research?**

   Yes, I strictly follow

   Yes, I somewhat follow

I do not follow them strictly

No, I do not follow them

(The following item will appear for the ones who answer "Yes")

Please specify details about these standards, rules, or policies. (Open-ended)

Institutional Level (Your university)

5. **Are there any institutional practices (e.g. virtual assistant, automated grading, personalized learning, etc.) regarding the use of LLMs or Generative AI tools in your institution?**

   Yes, there are quite a number of practices

   Yes, there are a few practices

   No, but plans and discussions regarding the practices are ongoing

   No, there are no plans or discussions regarding practices

   I have no idea

   (The following item will appear for the ones who answer "Yes")

   Please specify the details about institutional practices. (Open-ended)

6. **Are there any institutional policies (rules, standards, recommendations, guidelines, regulations, etc.) in your institution related to the use of LLMs or Generative AI tools?**

   Yes, clearly defined policies

   Yes, vaguely defined policies

   No, but policies are being considered

   No policies exist at the moment

   I do not know / I cannot say

   (The following item will appear for the ones who answer "Yes")

   Please specify details about institutional policies. You are also welcome to add a link to relevant web pages if you know them. (Open-ended)

National Level

7. **Are there any nationwide practices regarding the use of LLMs or Generative AI tools in your country?**

   Yes, there are quite a number of practices

   Yes, there are a few practices

   No, but plans and discussions regarding the practices are ongoing

   No, there are no plans or discussions regarding practices

   I have no idea

   (The following item will appear for the ones who answer "Yes")

Please specify the details about national practices. (Open-ended)

8. **Are there any national policies in your country related to the use of LLMs or Generative AI tools in education?**

   Yes, clearly defined policies

   Yes, vaguely defined policies

   No, but policies are being developed

   No policies exist at the moment

   I do not know / I cannot say

   (The following item will appear for the ones who answer "Yes")

   Please specify details about relevant national policies in your country. You are also welcome to add a link to relevant web pages if you know them. (Open-ended)

Opportunities, Challenges, and Others

9. **What benefits/positive outcomes have you observed/ do you predict from using LLMs or Generative AI tools? (Open-ended)**

10. **What challenges (technical, ethical, pedagogical) if any, have you faced/do you oversee in using LLMs or Generative AI tools in education? (Open-ended)**

11. **Additional comments or suggestions (Open-ended)**

We would like to have a short (15-20 min) interview with you about the topics raised in this questionnaire. If you accept, please write your e-mail address. E-mail addresses will be used solely for scheduling the interview and will not be shared with external parties. (open ended) (optional)

Appendix D.

Questionnaire for STUDENTS

Use of Large Language Models (LLMs) and Generative AI in Education

This questionnaire is prepared as a part of EU co-funded project, titled as "generative Ai anD large language Models In higher educaTion", shortly ADMIT (https://admit.eadtu.eu/). The questionnaire intends to collect data from different stakeholders (students, teachers, administrators, staff) of partner higher education institutions to understand the current landscape, challenges, and opportunities associated with the use of Large Language Models (LLMs) and Generative AI tools, such as ChatGPT. The information gathered from this questionnaire will contribute to a broader understanding of the practical applications, policy implications, and future directions of LLMs and Generative AI tools in higher education.

In this questionnaire, policy is defined as a set of rules, standards, principles, guidelines, procedures, regulations, plans concerning a specific topic adapted by an organization (governments, institutions) or an individual that provides a framework for practice. On the other hand, practice refers to any kind of actions, applications, or implementations related to using LLMs or Generative AI. The concepts of Generative AI and LLMs are considered artificial intelligence (AI) based content-creation technologies, such as ChatGPT, designed to understand, generate, and work with human language.

The questionnaire will take approximately 15-20 minutes to complete. Please answer all questions as honestly and accurately as possible. There are no right or wrong answers; we are interested in your experiences and perspectives. Some questions are open-ended to allow you to provide more detailed responses.

Thank you once again for your valuable contribution to this research. Your input will play a crucial role in shaping the future of education in the context of emerging AI technologies.

ADMIT Project Team

*I hereby acknowledge my acceptance of the [consent form] and express my willingness to participate in the study.

Yes

No

(The questionnaire will be displayed when the response is 'YES'.)

General Information

Name of the Institution

Department or field of study:

Ongoing Academic Degree: (multiple choice)

Associate

Bachelor's

Master's

Doctorate/PhD

1. **Are you familiar with LLMs and Generative AI?**

   Yes, very familiar

   Yes, somewhat familiar

   No, not very familiar

   No, not familiar at all

   (No follow up -open ended- needed)

2. **Have you received any training (formal or informal course, etc.) or support (teacher/expert/peer guidance, learning resources, etc.) related to the use of LLMs or Generative AI tools?**

   Yes, extensive training/support

   Yes, some training/support

   No, but I would like to receive training/support

   No, and I don't think I need training/support

   (The following item will appear for the ones who answer "Yes")

   Please specify details about the training or support you received (Open-ended)

Individual Level

3. Do you use LLMs or Generative AI tools in studying or research?

Yes, I frequently use

Yes, I occasionally use

No, but planning to use

No, I don't use

(The following item will appear for the ones who answer "Yes")

Please specify details about how you use these tools. (Open-ended)

4. Do you follow specific standards, rules, or policies while using LLMs or Generative AI tools in studying or research?

Yes, I strictly adhere to available standards, rules or policies.

Yes, I adhere to them to some extent.

No, I do not strictly adhere to them.

No, I do not adhere to them at all.

(The following item will appear for the ones who answer "Yes")

Please specify details about these standards, rules, or policies. (Open-ended)

Institutional Level (Your university)

5. Are there any institutional practices (e.g. virtual assistant, automated grading, personalized learning, etc.) regarding the use of LLMs or Generative AI tools in your institution?

Yes, there are quite a number of practices

Yes, there are a few practices

No, but plans and discussions regarding the practices are ongoing

No, there are no plans or discussions regarding practices

I have no idea

(The following item will appear for the ones who answer "Yes")

Please specify the details about institutional practices. (Open-ended)

6. In your knowledge, are there any institutional policies (rules, standards, recommendations, guidelines, regulations, etc.) in your institution related to the use of LLMs or Generative AI tools?

Yes, clearly defined policies

Yes, vaguely defined policies

No, but policies are still being considered

No policies exist at the moment

I have no idea

(The following item will appear for the ones who answer "Yes")

Please specify details about institutional policies. You are also welcome to add a link to relevant web pages if you know them. (Open-ended)

National Level

7. Are there any nationwide practices regarding the use of LLMs or Generative AI tools in your country?

Yes, there are quite a number of practices

Yes, there are a few practices

No, but plans and discussions regarding the practices are ongoing

No, there are no plans or discussions regarding practices

I have no idea

(The following item will appear for the ones who answer "Yes")

Please specify the details about national practices. (Open-ended)

8. Are there any national policies in your country related to the use of LLMs or Generative AI tools in education?

Yes, clearly defined policies

Yes, vaguely defined policies

No, but policies are being developed

No policies exist at the moment

I have no idea

(The following item will appear for the ones who answer "Yes")

Please specify details about relevant national policies in your country. You are also welcome to add a link to relevant web pages if you know them. (Open-ended)

Opportunities, Challenges, and Others

9. What benefits/positive outcomes have you observed/ do you predict from using LLMs or Generative AI tools? (Open-ended)

10. What challenges (technical, ethical, pedagogical) if any, have you faced/do you oversee in using LLMs or Generative AI tools in education? (Open-ended)

11. Additional comments or suggestions (Open-ended)

We would like to have a short (15-20 min) interview with you about the topics raised in this questionnaire. If you accept, please write your e-mail address. E-mail addresses will be used solely for scheduling the interview and will not be shared with external parties. (open ended) (optional)

Appendix E.

Follow-up Interview Questions

For ADMINISTRATION/UNIVERSITY MANAGEMENT

Based on the questionnaire content, which focuses on national, institutional and individual policies and practices in the partner institutions, and the opportunities and challenges of using Large Language Models (LLMs) and Generative AI in education, the follow-up interview questions could delve deeper into these areas to gain more nuanced insights. The questions asked during the interview should encourage a comprehensive discussion, allowing the participant to share in-depth insights and experiences that could not be fully captured through the questionnaire alone. Since this is a semi-structured interview, you are not limited to the suggested questions below; you can also ask different questions to get in-depth answers depending on the flow of the conversation. Here are some suggested questions:

Awareness

Understanding and Awareness:

- How familiar/aware are you with the capabilities and limitations of Large Language Models (LLMs) and Generative AI in educational contexts?
- Do you think your institution is familiar with the capabilities and limitations of Large Language Models (LLMs) and Generative AI in educational contexts?

Information Sources:

- What are the primary sources of information or guidance that your institution relies on to stay informed about advancements in LLMs and Generative AI?

Purpose of Using Them

Educational Integration:

- If any, for what specific educational purposes does your institution currently use, or plan to use, LLMs and Generative AI?

Strategic Objectives:

- How do these technologies align with your institution's strategic educational and research objectives?

Opportunities and Challenges

Enhancing Education:

- What opportunities do you see for LLMs and Generative AI to enhance teaching, learning, and research at your institution?
- What are your expectations for the future use of LLM and generative AI in education?

Addressing Challenges:

- What are the main challenges your institution faces in integrating these technologies into the educational process, and how are you addressing them?

Appendix F.

Follow-up Interview Questions

For IT/TEACHING AND LEARNING SUPPORT SERVICES

Based on the questionnaire content, which focuses on national, institutional and individual policies and practices in the partner institutions, and the opportunities and challenges of using Large Language Models (LLMs) and Generative AI in education, the follow-up interview questions could delve deeper into these areas to gain more nuanced insights. The questions asked during the interview should encourage a comprehensive discussion, allowing the participant to share in-depth insights and experiences that could not be fully captured through the questionnaire alone. Since this is a semi-structured interview, you are not limited to the suggested questions below; you can also ask different questions to get in-depth answers depending on the flow of the conversation. Here are some suggested questions:

Awareness

Understanding and Awareness:

- How familiar/aware are you with the capabilities and limitations of Large Language Models (LLMs) and Generative AI in educational contexts?
- Do you think your institution is familiar with the capabilities and limitations of Large Language Models (LLMs) and Generative AI in educational contexts?

Information Sources:

- What are the primary sources of information or guidance that your institution relies on to stay informed about advancements in LLMs and Generative AI?

Purpose of Using Them

Educational Integration:

- If any, for what specific educational purposes does your institution/department currently use, or plan to use, LLMs and Generative AI?

Strategic Objectives:

- How do these technologies align with your institution's/department's strategic educational and research objectives?

Opportunities and Challenges

Enhancing Education:

- What opportunities do you see for LLMs and Generative AI to enhance teaching, learning, and research at your institution/department?
- What are your expectations for the future use of LLM and generative AI in education?

Addressing Challenges:

- What are the main challenges your institution/department faces in integrating these technologies into the educational process, and how are you addressing them?

Appendix G.

Follow-up Interview Questions

For TEACHERS

Based on the questionnaire content, which focuses on national, institutional, departmental and individual policies and practices in the partner institutions, and the opportunities and challenges of using Large Language Models (LLMs) and Generative AI in education, the follow-up interview questions could delve deeper into these areas to gain more nuanced insights. The questions asked during the interview should encourage a comprehensive discussion, allowing the participant to share in-depth insights and experiences that could not be fully captured through the questionnaire alone. Since this is a semi-structured interview, you are not limited to the suggested questions below; you can also ask different questions to get in-depth answers depending on the flow of the conversation. Here are some suggested questions:

Awareness

Understanding and Awareness:

- How familiar/aware are you with the capabilities and limitations of Large Language Models (LLMs) and Generative AI in educational contexts?
- Do you think your institution is familiar with the capabilities and limitations of Large Language Models (LLMs) and Generative AI in educational contexts?

Information Sources:

- What are the primary sources of information or guidance that your institution relies on to stay informed about advancements in LLMs and Generative AI?

Purpose of Using Them

Educational Integration:

- If any, for what specific educational purposes does your institution currently use, or plan to use, LLMs and Generative AI?
- Does your institution provide support to teachers (principles, frameworks,

guidelines, policy, training, etc.) for the AI course integration?

- How do you use AI (Generative) for the design of your course (for content

development, for activity design, for feedback, for evaluation)?

- Do you allow your students to use AI? How do you propose that they use it?
- How do you support your students in the use of AI (guidance on tools,

guidance on how to develop effective prompts, ethical use)? What kind of

skills or competencies do you target with the use of AI (specific or transversal-

like critical thinking, writing, communication, etc)?

Strategic Objectives:

- How do these technologies align with your institution's strategic educational and research objectives?

Opportunities and Challenges

Enhancing Education:

- What opportunities do you see for LLMs and Generative AI to enhance teaching, learning, and research at your institution?
- What are your expectations for the future use of LLM and generative AI in education?

Addressing Challenges:

- What are the main challenges your institution faces in integrating these technologies into the educational process, and how are you addressing them?

Appendix H.

Follow-up Interview Questions

For STUDENTS

Based on the questionnaire content, which focuses on policies and practices in the partner institutions, and the opportunities and challenges of using Large Language Models (LLMs) and Generative AI in education, the follow-up interview questions could delve deeper into these areas to gain more nuanced insights. The questions asked during the interview should encourage a comprehensive discussion, allowing the participant to share in-depth insights and experiences that could not be fully captured through the questionnaire alone. Since this is a semi-structured interview, you are not limited to the suggested questions below; you can also ask different questions to get in-depth answers depending on the flow of the conversation. Here are some suggested questions:

Awareness

Understanding and Awareness:

- How familiar/aware are you with the capabilities and limitations of Large Language Models (LLMs) and Generative AI in educational contexts?
- Do you think your institution is familiar with the capabilities and limitations of Large Language Models (LLMs) and Generative AI in educational contexts?

Information Sources:

- What are the primary sources of information or guidance that you rely on to stay informed about advancements in LLMs and Generative AI?

Purpose of Using Them

Educational Integration:

- If any, for what specific educational purposes do you currently use, or plan to use, LLMs and Generative AI?
- What skills do you think you will need, and what competencies to develop, for you to appropriately use AI for your learning?

Strategic Objectives:

- How do these technologies align with your learning objectives?

Opportunities and Challenges

Enhancing Education:

- What opportunities do you see for LLMs and Generative AI to enhance learning? (explore: equal access, equal opportunities, special needs, personalized learning, etc.)
- What are your expectations for the future use of LLM and generative AI in education?

Addressing Challenges:

- What are the main challenges you face in integrating these technologies into your learning process, and how are you addressing them?

Appendix I.

Consent Form for Questionnaires

This questionnaire aims to understand the current landscape, challenges, and opportunities associated with the use of Large Language Models (LLMs) and Generative AI such as ChatGPT, within your institution. The study is part of the EU funded project titled as *ADMIT: generative Ai anD large language Models In higher educaTion*, and its results will shed light on a broader understanding of the practical applications, policy implications, and future directions of LLM and Generative AI technologies in education. To accomplish this, we will inquire about your individual experiences with LLMs and Generative AI technologies, as well as the policies and practices related to these technologies at both your institution and within your country.

Your participation in this study is entirely voluntary, and you may withdraw at any time without penalty. In alignment with the study's objectives, data will be collected through an online questionnaire. The questionnaire will take approximately 15-20 minutes to complete. Please rest assured that all responses will be treated with the highest confidentiality. You are not required to provide any information that could reveal your identity. To ensure the utmost security and confidentiality, the data will be stored in a secure Google Cloud repository, protected by robust encryption methods both during transmission and at rest. Access to this data will be strictly controlled, limited to authorized project partners only, and managed through secure access controls and authentication mechanisms. The data will be retained for the duration of the project, after which it will be securely discarded. At no point will the data be shared with third parties, upholding our commitment to participant privacy and data security. You have the right to review the data collected from you if desired.

No part of the data collection process will involve questions or requests that may cause discomfort. However, if you feel uncomfortable at any point during your participation, you have the option to withdraw from the study by sending an email to the contact address provided below. Should you choose to leave, any data collected from you will be promptly removed and discarded.

Thank you for taking the time to read and consider this voluntary participation form. Should you have any questions about the study, please direct them to [**Contact Name and email**] from the [**Department Name**] at [**University Name**].

Appendix J.

Consent Form for Interviews

This study aims to understand the current landscape, challenges, and opportunities associated with the use of Large Language Models (LLMs) and Generative AI such as ChatGPT, within your institution. The study is part of the EU funded project titled as *ADMIT: generative Ai anD large language Models In higher educaTion*, and its results will shed light on a broader understanding of the practical applications, policy implications, and future directions of LLM and Generative AI technologies in education. To accomplish this, we will inquire about your experiences with LLMs and Generative AI technologies.

Your participation in this study is entirely voluntary, and you may withdraw at any time without penalty. In alignment with the study's objectives, data will be collected through an interview. Please rest assured that all responses will be treated with the highest confidentiality. You are not required to provide any information that could reveal your identity. The collected and recorded data will be anonymized and used solely for academic purposes. To ensure the utmost security and confidentiality, the data will be stored in a secure Google Cloud repository, protected by robust encryption methods both during transmission and at rest. Access to this data will be strictly controlled, limited to authorized project partners only, and managed through secure access controls and authentication mechanisms. The data will be retained for the duration of the project, after which it will be securely discarded. At no point will the data be shared with third parties, upholding our commitment to participant privacy and data security. You have the right to review the data collected from you if desired.

No part of the data collection process will involve questions or requests that may cause discomfort. However, if you feel uncomfortable at any point during your participation, you have the option to withdraw from the study by sending an email to the contact address provided below. Should you choose to leave, any data collected from you will be promptly removed and discarded.

Thank you for taking the time to read and consider this voluntary participation form. Should you have any questions about the study, please direct them to [Contact Name and email] from the [Department Name] at [University Name].

I willingly consent to participate in this study, knowing that I can leave the study at any time, and I accept that the information I provide will be used for scientific purposes.

(Please fill out and sign this form, then give it to the data collector.)

Signature:

Date:

Appendix K.

Questionnaire for PARTNERS
ADMIT-WP3-Policies and Practices-Additional Information

Dear Partners,

The aim of this short questionnaire is to gather additional information on current policies and practices regarding the use of LLMs or Generative AI tools in your institution and country for D3.1. This will complement and confirm the responses collected earlier from students, teachers, administrators, and support staff.

We kindly request that each partner conduct a brief review of their country and institution to ensure the most accurate and up-to-date reflection of current policies and practices. Please have one of the ADMIT Project team members at your institution complete the following short questionnaire by 15 October 2024.

Thank you,
WP3 Team

Institution Name: .....

1. Are there any institutional practices (e.g. virtual assistant, automated grading, personalized learning, etc.) regarding the use of LLMs or Generative AI tools in your institution? If yes, please specify the details about institutional practices. (Open-ended)

2. Are there any institutional policies (rules, standards, recommendations, guidelines, regulations, etc.) in your institution related to the use of LLMs or Generative AI tools? Please specify details about institutional policies and indicate whether these policies are required (binding) or advisory. Please add links to relevant web pages if there is any. Please add the date when these recommendations were published if there is one available. (Open-ended)

Please add documents related with institutional policies in your institution if there is any (Word or PDF).

3. Are there any nationwide practices regarding the use of LLMs or Generative AI tools in your country? If yes, please specify the details about national practices. (Open-ended)

4. Are there any national policies in your country related to the use of LLMs or Generative AI tools in education? If yes, please specify details about relevant national policies in your country and indicate whether these policies are required (binding) or advisory. Please add links to relevant web pages if there is any. Please add the date when these recommendations were published if there is one available. (Open-ended)

Please add documents related with national policies in your institution if there is any (Word or PDF).

Additional Comments (if any) (Open-ended)

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