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"University to Society Collaborations for Inclusive Digital Transformation in the Western Balkans" (U2SID)

Erasmus+ Capacity Building Project

TASK REPORT

Task 2.1.1 – Need Assessment and Pre-Evaluation Survey of Digital Literacies

Date of report: 29.01.2024

Event title, place, dates	Final report - Needs assessment survey of digital literacies in U2SID partner universities, 29 January 2024, online meeting.
Event/Task aim and overview	<p>The aim of the assessment was to conduct an evaluation of the current state of the digital literacies among students and lecturers in 4 partner universities of the U2SID project, namely: University of Shkodra, University of Korca, Mediterranean University of Albania and University of Montenegro. Through assessing the needs of the target group this study recognizes the increasing role that the digital competencies play in delivering and accessing higher education. The needs assessment study identified the gaps in knowledge, skills, and infrastructure that may be hindering the effective use of digital tools and resources in teaching and learning environments in the universities involved in this project in Albania and Montenegro.</p> <p>SCiDEV team created the methodology and the instruments for the need assessment and pre-evaluation of digital literacies with the aim to facilitate an understating of the subject within academic contexts of partner universities involved in the project and to inform with evidence the next activities to be implemented by the project partners such as the Digital Literacies Accelerator Programme (WP2) and Digital Transformation Challenge (WP3).</p>
Speakers and affiliation	<p>Dr. Blerjana Bino, Executive Director, SCiDEV Orkidea Xhaferaj, Founder of the Network of Albanian Women in STEM/SCiDEV Ilir Brasha, Expert for data analysis, SCiDEV</p>





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Impact to the project	The Final Report for the Pre-Evaluation and Need Assessment of Digital Literacies gives valuable insight in the current landscape of digital literacies in the four partner universities in Albania and Montenegro. The emerging consensus points towards a need for enhanced IT and digital infrastructure, face-to-face digital literacies training, and collaborative efforts across various sectors. The published report will be pivotal in shaping the strategies and initiatives of the Digital Literacies Accelerator Programme and the Digital Transformation Challenge.
Type of audience	Internal audience/ Steering committee meeting
Target audience reached and size	Online survey: 709 students, 199 lecturers Focus groups: 146 students, lecturers, stakeholders
Coverage Level	National through social media Regionally in partner Universities in Albania specifically in Tirana, Shkodra, Korca and Montenegro
Dissemination links	https://u2sid.al/news/launching-digital-need-assessment-within-the-u2sid-project https://u2sid.al/news/focus-group-with-students-of-the-mediterranean-university-of-albania-in-the-framework-of-digital-skills-literacies-programme https://u2sid.al/news/focus-group-with-students-at-university-of-shkoder-luigi-gurakuqi-in-the-framework-of-digital-literacies-programme https://u2sid.al/news/focus-group-with-academics-from-university-of-shkoder-luigi-gurakuqi-in-the-framework-of-wp2-digital-literacies-programme https://u2sid.al/news/focus-group-with-stakeholders-of-the-university-of-shkoder-luigi-gurakuqi-in-the-framework-of-wp2-digital-literacies-programme https://u2sid.al/news/focus-group-with-academics-from-mediterranean-university-of-albania-in-the-framework-of-wp2-digital-literacies-programme https://u2sid.al/news/need-assessment-of-lecturers-students-and-stakeholders-on-digital-literacies





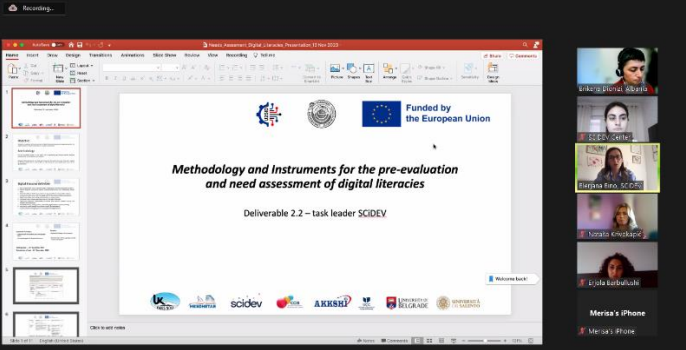
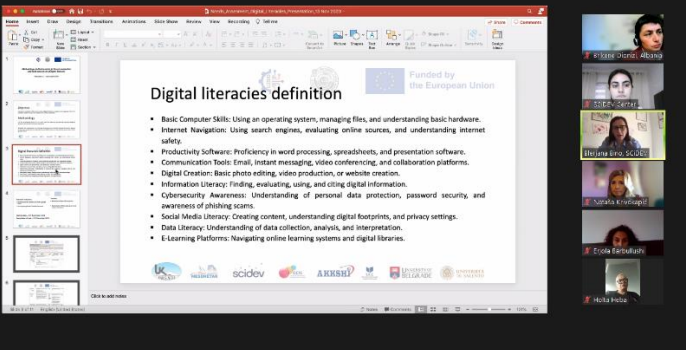
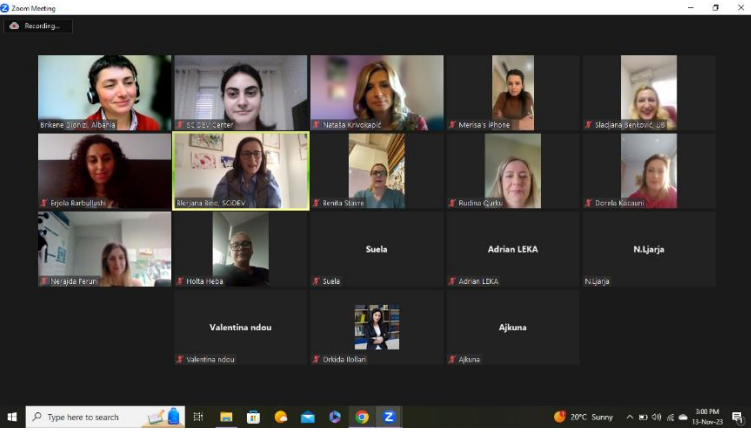
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	<p>https://www.facebook.com/U2SIDPROJECT/posts/pfbid0QJBZsJ87CwKJSrXrKFTnAL6sXW3ecdhBA653vqo2wQ14WGCjzo8ZjNoNrAa3pahSl</p> <p>https://u2sid.al/news/launching-digital-need-assessment-within-the-u2sid-project</p> <p>http://unkorce.edu.al/pervoijat-e-pedagogeve-giate-perdorimit-te-mjeteve-dixhitale-dhe-inteligjences-artificiale-ne-mesimdhene-dhe-ne-punen-kerkimore-u-diskutuan-ne-takimin-e-zhvilluar-ne-kuader-te-projektit-u2sid/</p> <p>https://www.facebook.com/share/p/1icaAis2HnEgK4Zb/?mibextid=WC7FNe</p> <p>https://www.facebook.com/share/p/FZjScQGzoyhgZD6Z/?mibextid=WC7FNe</p> <p>https://www.facebook.com/share/p/onEs2VisvudXVDvY/?mibextid=WC7FNe</p> <p>https://www.facebook.com/filozofskiniksic/posts/pfbid0V1MGmGyChtKVGXHjpRnBqqSxRCvhuyNYN43NeavYhRSG2RXfyiStiDUGCd21BbCzI</p> <p>https://www.facebook.com/U2SIDPROJECT/posts/pfbid02i4W6qv1RpWtqDDhAYqxfghVR1tgep9invFFEsbqYcVC4p6qvRAuyVykKhcB9sH3I</p> <p>https://www.facebook.com/U2SIDPROJECT/posts/pfbid02cRrYsYjbX4uCbq9pGzEGmPQEwvbybH1CHfn9KHTTwAvWL5AfjikfDqDb7vHc8GKLyl</p> <p>https://www.facebook.com/U2SIDPROJECT/posts/pfbid0uhXns4ZfLqujHbNEtY4SnQa7rbUvtABzjNs5tVqn3bKjPq93GFpzVR6hEg8R8krxl</p> <p>https://www.facebook.com/U2SIDPROJECT/posts/pfbid02CZHjgK4oCVapnnszEwLSuddgRpXQV2YcfsRRB2dP39bBpB9kAiQxFUVqDMGVvsycl</p>
<p>Partners involved</p>	<p>All project partners: University of Shkodra "Luigj Gurakuqi" University "Fan S. Noli", Korçë Mediterranean University of Albania Center Science and Innovation for Development - SCiDEV Center for Comparative and International Studies - CCIS National Agency for Scientific Research and Innovation University of Montenegro University of Belgrade University of Salento</p>
<p>List of annexes/documents</p>	<p>Final Report of "Needs assessment survey of Digital Literacies" Report of "University of Shkodra" Report of "University of Korca" Report of "Mediterranean University of Albania" Report of "University of Montenegro" Dissemination Report – Needs Assessment, November 2023 Dissemination Report – Focus groups, January 2024</p>





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	Dissemination Report – Final Report Needs Assessment
Photo/Video 0	<p>Screenshots/ videos from zoom</p>   

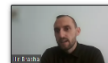




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Final report for the pre-evaluation and need assessment of digital literacies

Deliverable 2.2 – task leader SCIDEV





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Students - Key Findings (II)

- Students are most interested in improving **Digital Creation (16%)** and **Basic Computer Skills (15%)**.
- The preferred format of training is **Online Video Tutorials (48%)**, and **In-Person Workshops (37%)**. Findings from Focus Groups show that face-to-face training is preferred over online training, but they show a preference for Online Video Tutorials.
- The findings indicate that a **lack of awareness regarding accessible training opportunities** constitutes the primary obstacle hindering student participation in Digital Literacy Training.
- About **15%** of students would like training to be at the **expert level**, **32% Comprehensive**, **35% Intermediate level**, and **18%** just to have a **basic understanding**.
- About **45%** of students would prefer training to be at **least once a week**.



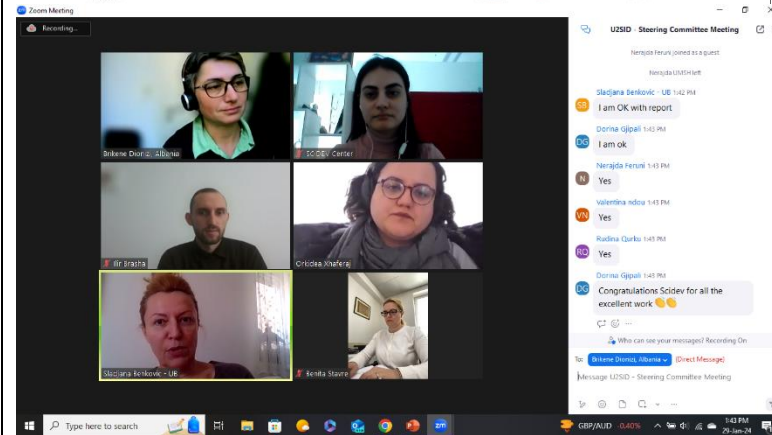
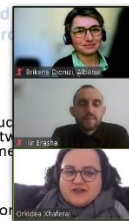
Conclusion and Recommendations

Students

- Formalization of Communication
- Enhancement of University Infrastructure
- Optimization of Online Library Access
- Adoption of modern teaching methods
- Strengthening of Digital Literacies Training
- 6. Curricular Adaptation for the Digital Future: Integrate digital tools into the curriculum to align educational programs with the demands of the evolving digital landscape.

Lecturers

- Improved technology infrastructure: new computers, Improved network, Access to WIFI, etc.) Enhancement of University Infrastructure
- Access to Online Libraries
- Institutional strategic framework on digital literacies
- Curricula and trainings on digital literacies
- Standardized tools and platforms at the university level.
- Erasmus+ knowledge sharing.
- Ensuring a flexible legal framework.
- Privacy and Security Training





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"University to Society Collaborations for Inclusive Digital Transformation in the Western Balkans" (U2SID)

Erasmus+ Capacity Building Project

Deliverable 2.1, Task 2.1.1 – Need Assessment and Pre-Evaluation Survey of Digital Literacies

DETAILED REPORT

SCiDEV was the task leader for the Deliverable 2.2: Study on Results of WP2: Digital Literacies Accelerator Programme. During the month of October SCiDEV team developed the methodology and the instruments for the pre-evaluation and need assessment of digital literacies. The aim of the assessment was to conduct an evaluation of the current state of the digital literacies among students and lecturers in 4 partner universities of the U2SID project, namely: University of Shkodra, University of Korca, Mediterranean University of Albania and University of Montenegro. Through assessing the needs of the target group this study recognizes the increasing role that the digital competencies play in delivering and accessing higher education. The needs assessment study identified the gaps in knowledge, skills, and infrastructure that may be hindering the effective use of digital tools and resources in teaching and learning environments in the universities involved in this project in Albania and Montenegro.

SCiDEV team created the methodology and the instruments for the need assessment and pre-evaluation of digital literacies with the aim to facilitate an understating of the subject within academic contexts of partner universities involved in the project and to inform with evidence the next activities to be implemented by the project partners such as the Digital Literacies Accelerator Programme (WP2) and Digital Transformation Challenge (WP3).

Methodology encompasses both quantitative and qualitative data collection methods, making it possible to have a reliable report on the digital literacies needs and gaps in the academic context of the 4 partner universities. The quantitative main instrument was an online questionnaire targeting students and lecturers encompassing a diverse cross-section of departments, faculties and education levels both Bachelor and Masters. This instrument was designed as quantitatively assess lecturers' and students' self-reported competencies in digital literacy, their habitual use of digital resources, their preferences for certain technologies, and their perceived needs for further support and development. The qualitative main instrument was structured focus groups discussions which delved in the subjective dimension of digital literacies. The focus groups targeted lecturers, students and stakeholders and were planned to reveal the attitudes, personal experiences and the various contextual factors that shape individuals' engagement with digital tools and resources.





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The methodology and instruments such as questionnaire, guidelines for focus groups and report templates were developed and presented by SCiDEV to the steering committee of U2SID project on 13th of November 2023. Project partners from all 4 universities were present in the online presentation, in the end of which, they also approved the use of them and started organizing in each of their universities the data collection. Both the methodology and the instruments served as a guiding tool for the partners to collect data for the two-month period November – December 2023.

On 15th November 2023 SCiDEV launched the Digital Needs Assessment Student and Survey within the U2SID project which remained available to receive answers until 4th of December 2024. All university partners distributed the link for students and lecturers online questionnaire to their respective academic staff and students. Beside the partner universities, NASRI also shared the links to the questionnaires to their university contacts. Both questionnaires were available to be accessed through the website of the U2SID project, as well as in social media channels of the project, beside the dissemination of the partner universities. Thanks to the work of the 4 partner universities University of Shkodra, University of Korca, Mediterranean University of Albania and University of Montenegro, the data gathered from the online questionnaires counts a total of 702 students and 199 lecturers. The online surveys were closed on 4th of December 2023, upon which the data gathered passed onto the SCiDEV expert of data analysis Ilri Brasha so that he could start drafting the data analysis and findings.

All partner universities as based on the methodology and instruments conducted 3 focus groups each, with stakeholders, lecturers and students, part of the qualitative approach of the need assessment and the pre-evaluation of digital literacies. In total 12 focus groups took place in a two-month period November – December 2023, and gather qualitative data from a total of 146 participants students, lecturers, and stakeholders. All partner universities provided dissemination reports as well as focus groups reports per each focus group, based on the template provided by SCiDEV in English. Deadline for all focus group reports to be finalized and sent to SCiDEV from all 4 partner universities was 15th of December. Upon finalization of this task from the partners, SCiDEV expert compiled individual reports for each partner university based on the reports from focus groups and the data provided from the questionnaires.

The draft individual reports were share with respective partner universities on 19th of January 2024, and asked to comment and suggest changes based on the findings of the reports. All university partners had no comments for changes.

During the month of January SCiDEV team of experts at the same time were drafting the final report of Needs assessment survey of Digital Literacies in U2SID partner universities, which compiled all the data from qualitative and quantitative instruments used. On 29th of January 2024 the steering committee of U2SID project held an online meeting where experts from SCiDEV, namely Ilir Brasha and Orkidea Xhaferaj, presented the final report to the partners. The





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presentation emphasized the key findings and the recommendations based on them. Upon finalization of the presentation from the team of experts the steering committee voted and approved the draft final report of Needs Assessment Survey of Digital Literacies.

SCiDEV team will ensure final design and proof reading approved from the steering committee and will publish it within the week. The report will be shared in U2SID website and social media, as well as each partner will arrange to share the report within their own university and with stakeholders as per the stakeholders database.

The Final Report for the Pre-Evaluation and Need Assessment of Digital Literacies gives valuable insight in the current landscape of digital literacies in the four partner universities in Albania and Montenegro. The emerging consensus points towards a need for enhanced IT and digital infrastructure, face-to-face digital literacies training, and collaborative efforts across various sectors. The published report will be pivotal in shaping the strategies and initiatives of the Digital Literacies Accelerator Programme and the Digital Transformation Challenge.

Key Findings

Students: Students are most interested in improving Digital Creation (16 %) and Basic Computer Skills (15%). Findings indicate a lack of awareness regarding accessible training opportunities, which constitutes the primary obstacle hindering student participation in Digital Literacies Training. The preferred format of training is Online Video Tutorials (48%), and In-Person Workshops (37%). Findings from Focus Groups show that face-to-face training is preferred over online training, but they show a preference for Online Video Tutorials.

Lecturers: More than half of lecturers (56%) mention that the main barrier to attending to attending Digital Literacy training the Insufficient training opportunities, while 30% lack time. Lecturers are open to all kinds of Digital Literacy Training (52% prefer Interactive Group Sessions, 43% Online Video Tutorials, 42% In-Person Workshops, 41% Live Online Classes/Courses) – multiple choice. Digital tools are used always in teaching by 18% of lecturers, 39% often, 33% sometimes, and so on.

Stakeholders: During the focus group discussions the stakeholders emphasize the Significant discrepancy between digital skills learnt from university and the ones required in the professional realm. There is a Disparity in digital skills across different academic levels. Stakeholders overall claim a lack of continued application leads to skills attrition over time.





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Recommendations

Enhancement of University Infrastructure – requirement to invest in technology infrastructure are important to the improvement of digital literacies of students.

Optimization of Online Library Access – enhancement of online library access and support to the students to increase their outputs relying on the wealth of information available to them.

Strengthening of Digital Literacies Training – enhancement of academic performance, employability, and lifelong learning through comprehensive Digital Literacies Training through skills and competencies required to use technology effectively, critically, and ethically.

Curricular Adaption for the Digital Future – development of new curricula to provide education fit for the needs of the labor market and the ever-evolving digital landscape.

Continuous Engagement and Development – foster continuous engagement and regularly review and enhance collaborative programs with students – lecturers – stakeholders.





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Erasmus+ U2SID Project

University to Society Collaborations for Inclusive Digital
Transformation in the Western Balkans

FINAL REPORT

NEEDS ASSESSMENT SURVEY OF DIGITAL LITERACIES IN U2SID PARTNER UNIVERSITIES





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This report is prepared by the Center Science and Innovation for Development (SCiDEV)

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Tirana, Albania, January 2024

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EXECUTIVE SUMMARY

The rapid development and employment of digital technologies drives the manner in which individuals, businesses and societies develop. As individuals and societies become more and more reliant on digital technologies, digital literacy becomes instrumental in ensuring that individuals can navigate, understand, and leverage these technologies effectively. Digital literacy encompasses the skills and competencies required to use digital tools and platforms for communication, information retrieval, and problem-solving. In the context of rapid digitalization, digital literacy is a prerequisite for individuals to fully participate in the digital society. Digital literacy does not involve only basic technical proficiency, but also the ability to critically evaluate and use information, evaluate online sources, analyze and understand data, all while navigating the digital landscape responsibly and safely.

To understand digital literacy within academic contexts of partner universities involved in U2SID and to inform with evidence the next activities to be implemented by the project partners such as the Digital Literacies Accelerator Programme and Digital Transformation Challenge, SCiDEV has conducted a study to evaluate the current state of digital literacy among two primary groups within the academic sphere: lecturers and students in 4 partner universities of the U2SID project, namely: University of Shkodra “Luigj Gurakuqi”, University of Korça “Fan S. Noli”, Mediterranean University of Albania and University of Montenegro.

Findings from the study show that students throughout the four universities show low literacy in regard to digital creation, productivity software and communication tools. Males generally exhibit higher digital literacy knowledge than females, and students from urban areas tend to outperform their rural counterparts. Master's students demonstrate a higher knowledge level compared to bachelor's students, with distinct variations across disciplines. Notably, students in engineering and computer sciences exhibit greater digital literacy proficiency. The findings related to lecturers in the study highlight the diverse landscape of digital literacy proficiency, influenced by factors such as university, gender, experience, and disciplinary expertise. Challenges in training participation, preferred skills for improvement, and barriers to enhancing digital literacy underscore the need for tailored and comprehensive strategies to support lecturers in navigating the digital landscape of higher education effectively. Findings from focus groups with stakeholders show that in their perception there is a significant discrepancy between the digital skills acquired by students in universities and the more complex, advanced skills required in the professional realm.

Recommendations stemming from this assessment touch upon the need for updated curricula that address digital literacy and digital skills overall. Serious gaps in technology infrastructure were noted during discussions with students and lecturers which calls for planning and budgeting for investments in technology infrastructure. Universities are recommended to increase access to online libraries so students and lecturers can benefit from consulting updated research. The rapid pace of development of digital technologies requires agile education institutions, that have decision making and independence from an academic point of view, which calls for advocacy for an improved and flexible legal framework. To foster connection with the labor market is recommended establishment of mentorship programs where professionals from relevant fields can guide and mentor students, offering insights into the practical application of digital tools in professional settings.





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PROJECT SNAPSHOT

Project Title	University to society collaborations for inclusive digital transformation in the Western Balkans
Project's acronym	U2SID
Webpage	www.u2sid.al
Project's budget	EUR 398,650.00
Funded by	Erasmus+ Programme Capacity building in Higher Education
Project number	101083131
Project duration	24 months
Project Coordinator	University of Shkodra Luigj Gurakuqi
Countries involved	Albania; Serbia; Montenegro; Italy
Project partners	<p>University of Shkodra Luigj Gurakuqi</p> <p>University „Fan S. Noli” of Korca</p> <p>Mediterranean University of Albania</p> <p>Center Science and Innovation for Development</p> <p>Center for Comparative and International Studies</p> <p>National Agency for Scientific Research and Innovation</p> <p>University of Montenegro</p> <p>University of Belgrade</p> <p>University of Salento</p>
Aim and objective	<p>Project's aim: To foster inclusive digital transformation in the Western Balkans through increased collaboration between universities with other stakeholders such as businesses, policy makers, civil society, and media.</p> <p><i>The specific objectives of U2SID are:</i></p> <p>SO1 – To strengthen digital competences of teachers, students, and professionals through the development of a Digital Literacies Acceleration Programme as a collaborative programme among universities on one side and businesses, civil society, local decision makers and media on the other.</p> <p>SO2 – To improve innovative teaching methods through piloting a Digital Transformation Challenge for students as a project-based and solution-oriented learning based on mentoring, coaching and placement at businesses, civil society, local decision makers and media.</p> <p>SO3 – To raise awareness on the importance of inclusive digitalisation by including vulnerable target groups in the digitalization process.</p>





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ABBREVIATIONS

CCIS	Center for Comparative and International Studies (Qendra për Studime Krahasuese dhe Ndërkombëtare)
EACEA	European Union or European Education and Culture Executive Agency
EU	European Union
NASRI	National Agency for Scientific Research and Innovation (Agjencia Kombëtare e Kërkimit Shkencor dhe Inovacionit)
PSC	Project Steering Committee
SCiDEV	Center Science and Innovation for Development (Qendra Shkencë dhe Inovacion për Zhvillim)
U2SID	University to society collaborations for inclusive digital transformation in the Western Balkans
UCG	University of Montenegro (Univerzitet Crne Gore)
UMSH	Mediterranean University of Albania (Universiteti Mesdhetar i Shqipërisë)
UNIBELGRADE	University of Belgrade (Univerzitet u Beogradu)
UNIKO	University „Fan S. Noli” of Korca (Universiteti i Korçës "Fan S. Noli")
UNISALENTO	University of Salento (Università del Salento)
UNISHK	University of Shkodra Luigj Gurakuqi (Universiteti i Shkodrës “Luigj Gurakuqi”)
WP	Work Package





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I. INTRODUCTION

The U2SID project aims to drive inclusive digital transformation in higher education in Western Balkans by fostering collaboration between universities, businesses, policymakers, civil society, and media. It emphasizes safe digitalization through enhancing awareness and capacity in privacy, data protection, and digital literacies, thus promoting digital rights. The aim of the project is to foster inclusive digital transformation in the Western Balkans through increased collaboration between universities with other stakeholders such as businesses, policy makers, civil society, and media.

The U2SID project's specific objectives encompass three key areas. Firstly, it focuses on enhancing digital competencies among teachers, students, and professionals via a Digital Literacies Acceleration Programme. This program promotes collaboration between universities and various stakeholders like businesses, civil society, and media. Secondly, it aims to advance innovative teaching methods through the Digital Transformation Challenge, offering project-based, solution-oriented learning with mentorship and professional placements. Lastly, it emphasizes raising awareness about inclusive digitalization, particularly targeting and including vulnerable groups in the digitalization process.

In this light, the central objective of this research exercise is to evaluate the current state of digital literacies among two primary groups within the academic sphere: lecturers and students in 4 partner universities of the U2SID project, namely: University of Shkodra “Luigj Gurakuqi”, University of Korça “Fan S. Noli”, Mediterranean University of Albania and University of Montenegro. The study recognizes the increasing role those digital competencies play in both delivering and accessing higher education. By assessing the needs, the study intends to identify gaps in knowledge, skills, and infrastructure that may be hindering the effective use of digital tools and resources in teaching and learning environments in the universities involved in this project in Albania and Montenegro.

Furthermore, the study seeks to incorporate diverse perspectives by engaging with stakeholders who are directly or indirectly impacted by the digital literacies of lecturers and students. These stakeholders may include administrative staff, IT personnel, policy makers, and employers. The input from these groups will provide a multi-dimensional understanding of digital literacies needs, expectations, and the potential barriers to implementing digital literacies programs.

1. METHODOLOGY

The methodology for this need assessment exercise on digital literacies at university level is crafted to facilitate an understanding of the subject within academic contexts of partner universities involved in the project and to inform with evidence the next activities to be implemented by the project partners such as the Digital Literacies Accelerator Programme and Digital Transformation Challenge. This approach embraces both quantitative and qualitative data collection methods, harmonizing them to draw a reliable picture of the digital literacies needs and gaps in these four academic contexts: University of Shkodra “Luigj Gurakuqi”, University of Korça “Fan S. Noli”, Mediterranean University of Albania and University of Montenegro. The study was conducted in November and December 2023 and the data analysis in January 2024.





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Central to the quantitative dimension of our research are online questionnaires with a total of 705 students surveyed and 199 lecturers. These instruments are designed to quantitatively assess lecturers' and students' self-reported competencies in digital literacies, their habitual use of digital resources, their preferences for certain technologies, and their perceived needs for further support and development. Ensuring a representative sample in each partner university is important; therefore, the study encompasses a diverse cross-section of departments, faculties, and educational levels both Bachelor and Masters. Subsequent statistical analyses scrutinize this quantitative information to identify prevalent patterns and trends, which provide insights for recommendations for the next activities to be implemented by the project partners.

Parallel to this, the qualitative component through structured focus group discussions delves into the more subjective dimensions of digital literacies. These sessions are planned to reveal the attitudes, personal experiences, and the various contextual factors that shape individuals' engagement with digital tools and resources. Discussion guides, prepared in advance and based on literature reviews, steered conversations to meaningful depths. The discussions were then transcribed in detailed focus group reports by each partner university. 3 focus groups were organized by each partner with lecturers, students, and stakeholders, with a total of 12 focus groups and 146 participants.

The integration of quantitative and qualitative data is necessary for the cross-verifying data points but also minimizes the biases that any single method might introduce. The findings of the need assessment are relevant for participating partner universities and cannot be generalized to entire academic contexts in Albania and Montenegro.

The online questionnaire and focus group guidelines, used this "Digital literacies" definition:

- Basic Computer Skills: Using an operating system, managing files, and understanding basic hardware.
- Internet Navigation: Using search engines, evaluating online sources, and understanding internet safety.
- Productivity Software: Proficiency in word processing, spreadsheets, and presentation software.
- Communication Tools: Email, instant messaging, video conferencing, and collaboration platforms.
- Digital Creation: Basic photo editing, video production, or website creation.
- Information Literacy: Finding, evaluating, using, and citing digital information.
- Cybersecurity Awareness: Understanding of personal data protection, password security, and awareness of phishing scams.
- Social Media Literacy: Creating content, understanding digital footprints, and privacy settings.
- Data Literacy: Understanding of data collection, analysis, and interpretation.
- E-Learning Platforms: Navigating online learning systems and digital libraries.





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2. DATA ANALYSIS AND SAMPLE DESCRIPTION

2.1 Statistical analysis

The study investigates digital literacies among students and lecturers at four universities: three in Albania (University of Shkodra “Luigj Gurakuqi”, University of Korça “Fan S. Noli”, Mediterranean University of Albania) and one in Montenegro (University of Montenegro). Involving 705 students and 199 lecturers, it utilized an online survey method. The margin of error for the student’s study, for the total four universities is 3.6%, meaning that the confidence interval of every result is +- 3.6%. The results of each university have a different margin of error. Results of the Mediterranean University of Albania have a margin error equal to 5.5%, University of Korça “Fan S. Noli” 7.4%, University of Shkodra “Luigj Gurakuqi” 7.8%, and University of Montenegro 10.4%. The highest margin of error for the results from Montenegro University is due to the low number of surveyed students.

Data Analysis is conducted using IBM SPSS. Data for students were weighted in order to be representative of each university and overall. This was done so the contribution of the male and female respondents from each university was proportional to the real population of students in each specific university and the total. The results of lecturers are presented in this study without any adjustment for their weight in the total population.

Furthermore, a qualitative approach was used as well. In total 12 Focus Groups were conducted in four universities, including one focus group with students at each university, one focus group for lecturers at each university, and one focus group with stakeholders for each university. Their findings are used to validate the data from the quantitative approach.

Table 1: Focus group data

	Students	Lectures	Stakeholders	Total per universities
University of Shkodra “Luigj Gurakuqi”	12	13	9	34
University of Korça “Fan S. Noli”	16	11	19	46
Mediterranean University of Albania	15	13	8	36
University of Montenegro	11	8	11	30
Total	54	45	47	146

2.2 Sample descriptions

This section deepens into the sample’s demographics by providing the characteristics patterns. We examine the tilt towards a 64% female majority among students, a balance that shifts subtly across different universities. Beyond gender, we explore the geographic tapestry, with 76% hailing from urban areas and 24% from rural landscapes. Their academic paths paint a further picture, with Business at the forefront (34%), followed by Natural Sciences (18%) and a spectrum of other disciplines. Turning the focus to the instructors, we find a similar gender distribution, with 68% female lecturers. The leading areas of expertise are Social Sciences (23%), Business (22%), and Humanities (21%).

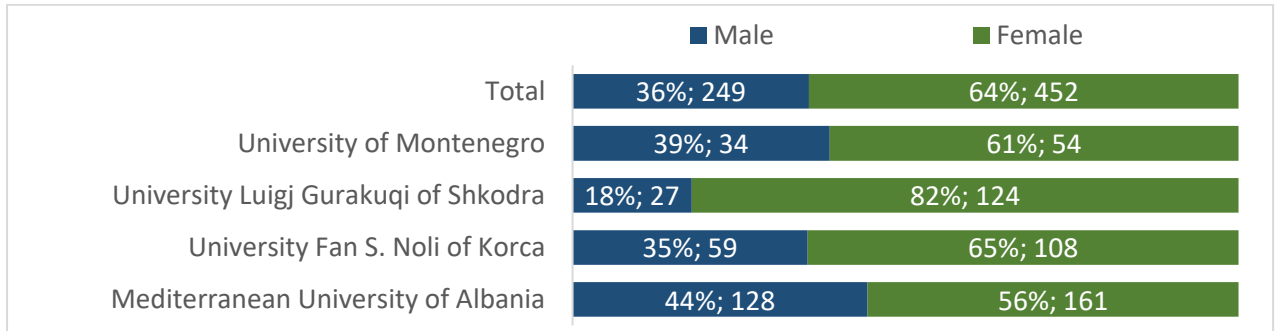




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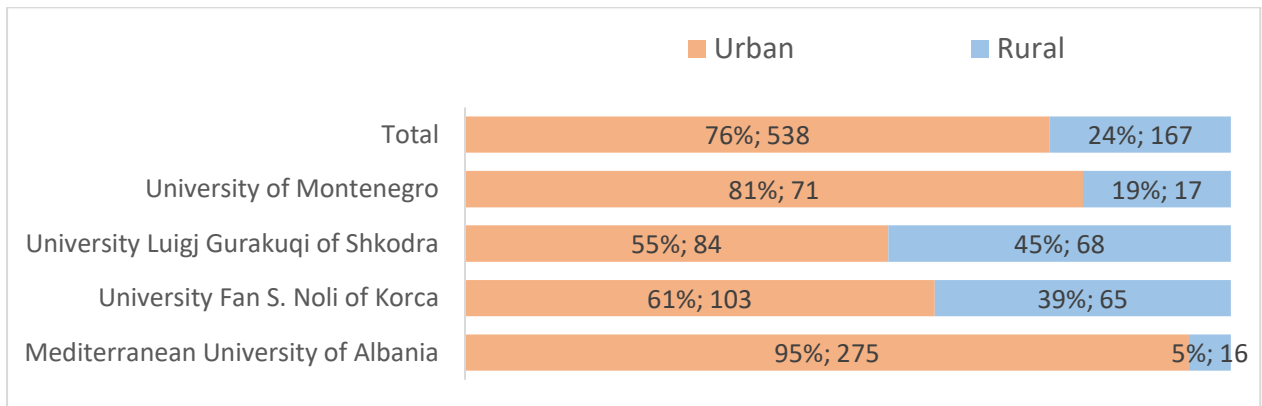
Overall gender balance, 64% of the surveyed students are females and 35% are males. The proportion differs from one university to another.

Figure 1: Students by Gender



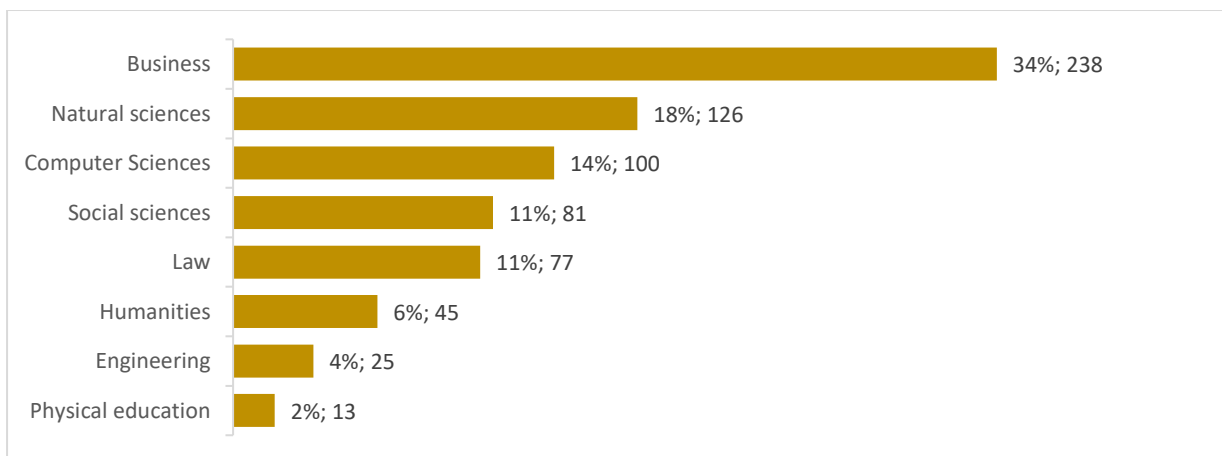
About 76% of surveyed students are from urban areas while 24% are from rural areas.

Figure 2: Students by Urbanity



Most of the students that were surveyed study Business (34%), Natural Sciences (18%), and so on.

Figure 3: Students by discipline of studies

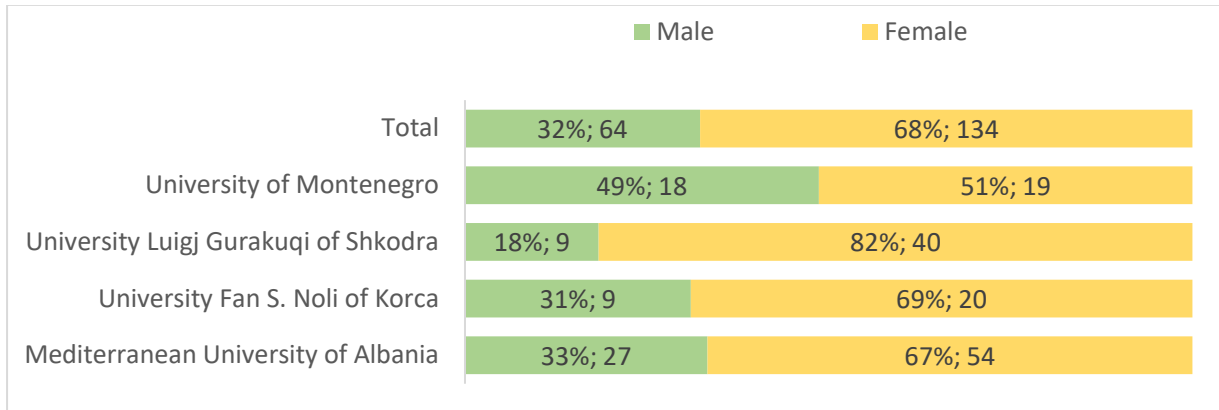




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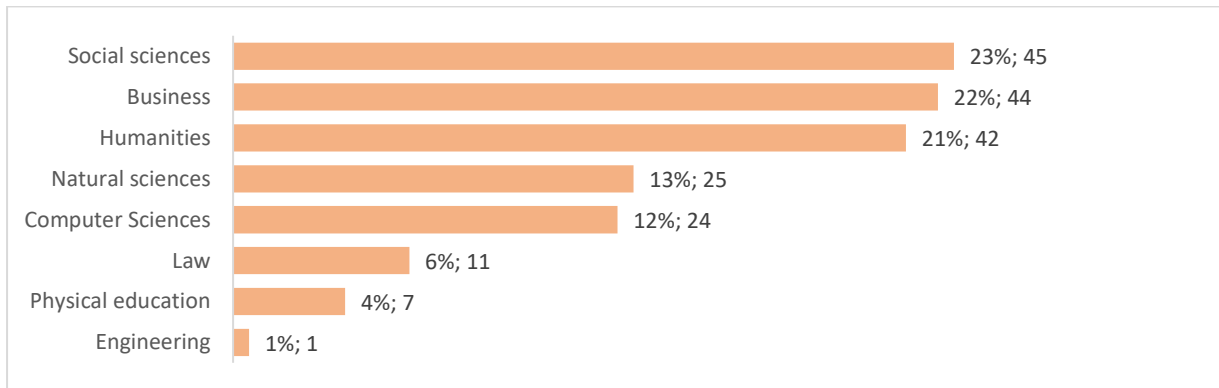
About 68% of Lecture respondents are females and 32% males.

Figure 4: Lecturers by gender



Regarding the discipline of expertise of lecturers, 23% are with Social Science profile, 22% Business, 21% Humanities etc.

Figure 5: Lecturers by discipline of expertise





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3. FINDINGS

This section of the report is structured around three primary components: firstly, it presents both quantitative and qualitative findings related to students; secondly, it delves into similar types of data concerning lecturers; and thirdly, it incorporates qualitative insights obtained from focus groups with various stakeholders.

3.1 Findings regarding students

Level of Knowledge

This section explores the depths of student proficiency in various aspects of digital literacies for each participating university. Digital Literacies refers to the ability to use, understand, and critically evaluate information, communication, and technology in various digital forms. It involves skills and competencies needed to navigate the digital landscape, including proficiency in using digital tools, platforms, and resources, as well as the capacity to critically access and engage with digital content. Digital Literacies encompasses a range of skills, from basic knowledge of digital devices and software to more advanced capabilities such as information literacy, media literacy, and the ability to participate in digital communication and collaboration effectively and responsibly.

From overall student responders, half of them (50%) have “no proficiency” or “limited proficiency” in Website Creation. The second indicator with the largest portion (36%) of students who declared to have “no proficiency” or “limited proficiency” is also in Digital Creation related to Video Production. ~~One third of student responders~~ Approximately one-third of student responders (32%) indicate “no proficiency” or “limited proficiency” in Communication Tools (Collaboration Platforms). Additionally, 30% of respondents lack proficiency in basic Computer Skills, such as utilizing an operating system, and 29% lack understanding of basic hardware.

Students of all four universities declare to have the largest lack of knowledge on Website Creation. The third lowest knowledge on Digital Literacies for students of Montenegro is on Generative AI (ChatGPT, Clause, Barn, etc., Accessing Generative AI, Understanding the Capabilities of Generative AI, and writing basic prompts) related to learning (34% declare “no proficiency” or “limited proficiency”).

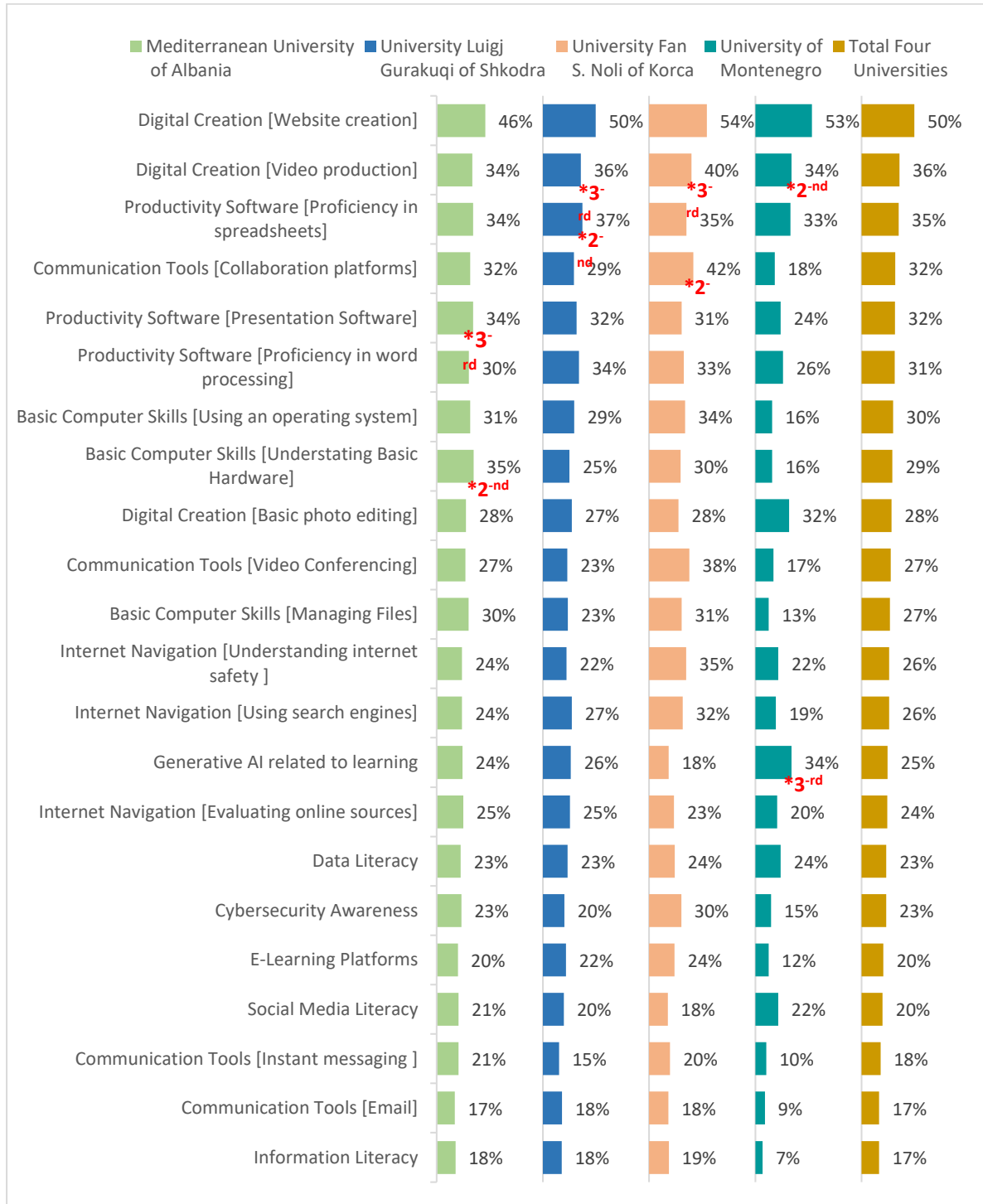
The second lowest level of knowledge on Digital Literacies for students at Mediterranean University of Albania is in Understanding Basic Hardware (35% declare “no proficiency” or “limited proficiency”), while the third is Presentation Software (34%).

For students of University of Shkodra “Luigj Gurakuqi”, the second lowest knowledge in Digital Literacies is Proficiency in Spreadsheets (37%).

About 42% of students at University of Korça “Fan S. Noli”, declare “no proficiency” or “limited proficiency” in Collaboration Platforms (the second lowest for students at University of Korça “Fan S. Noli”).



Figure 6: Share of students who have "no proficiency" or "limited proficiency" in Digital Literacies, by university



Findings from the qualitative analysis reveal that students utilize various technological tools for academic purposes. The most frequently cited digital tools employed by students at each respective university are outlined below:

- University of Montenegro: Students at this institution commonly utilize the Google Search engine, ChatGPT, Zoom, Microsoft Teams, TL platform, MOODLE, Viber, and Instagram.



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- Mediterranean University of Albania: Students at this university prefer digital tools such as Google Classroom, G-Suite, Udemy, Instagram, and YouTube. Furthermore, they underscore the significance of programming languages such as C++, Python, JavaScript, React, Angular, PHP, R, MatLAB, SPSS, SAS, as well as communication and collaboration tools like Microsoft Teams, Google Meeting, and Zoom, all of which are pertinent to their specific fields of study.
- University of Korça “Fan S. Noli”: Students at this institution commonly use Microsoft Office, Microsoft Suite, Google Drive, and online dictionaries for their academic endeavors.
- University of Shkodra “Luigj Gurakuqi”: Students at this university utilize a diverse set of tools, including Microsoft Teams, Zoom, Microsoft Office, Word, PowerPoint Presentation, Google Forms, Python, Canva, Photoshop, Voice Records, various media networking platforms, and ChatGPT for their academic activities.

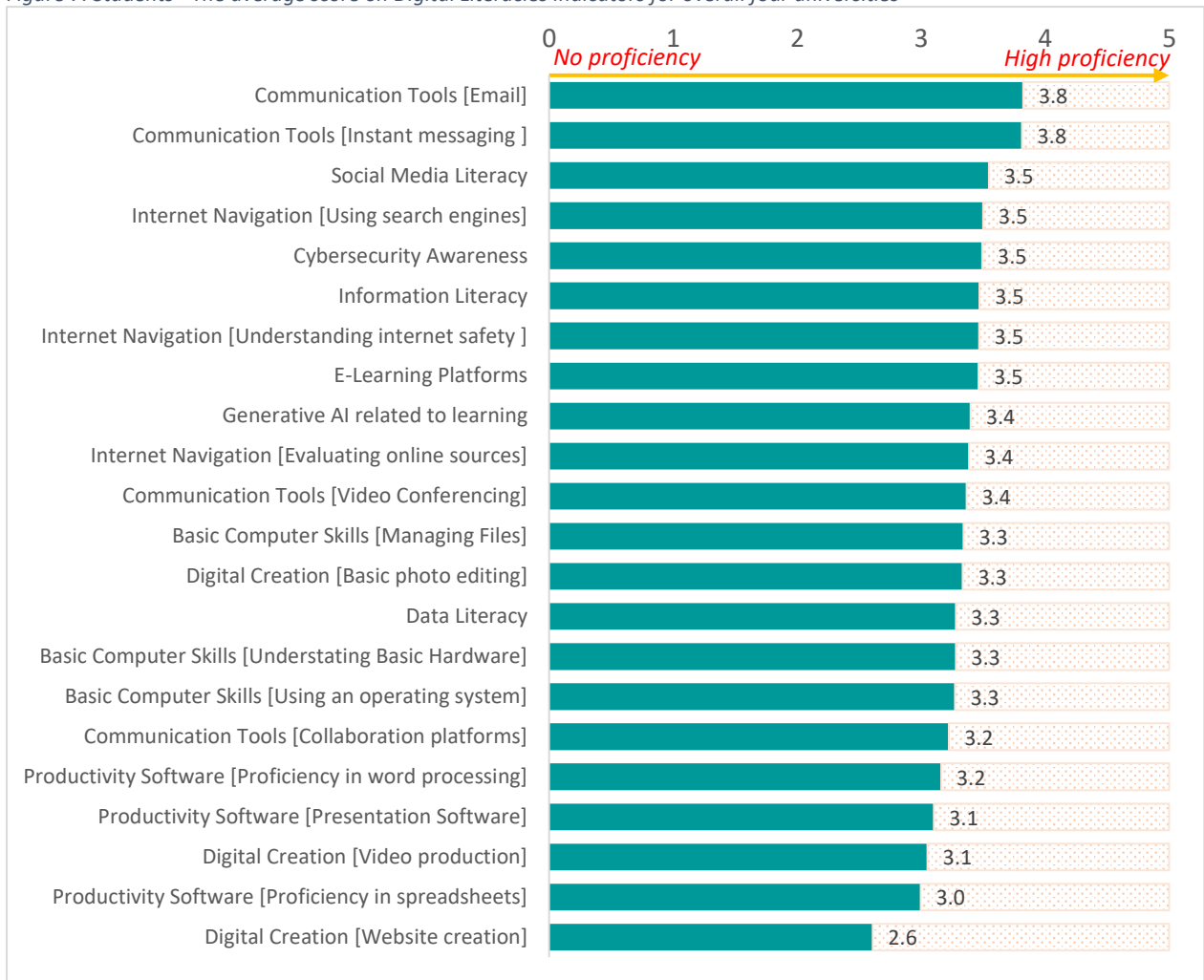
These findings underscore the varied digital tool preferences among students across different universities, reflecting the adaptability and versatility of technology in enhancing ~~the~~ academic experience.

An alternative method for presenting results involves calculating the average score and subsequently comparing it against all the indicators utilized for assessing Digital Literacies Knowledge. This approach provides a comprehensive overview of overall digital literacies proficiency, enabling a nuanced evaluation of performance across diverse dimensions. Analyzing the average scores in relation to each specific indicator yields a more detailed understanding of strengths and weaknesses in digital literacies, offering valuable insights for targeted interventions and enhancements in educational strategies. The lowest level of proficiency in Digital Literacies, excluding Digital Creation and Productivity Software, is evident in Communication Tools (Collaborative platforms with an average rating of 3.2/5) and Basic Computer Skills (which encompass using an operating system, understanding basic hardware, and managing files with an average rating of 3.3/5). A comparable average proficiency of 3.3/5 is also observed in students' Data Literacies skills, where a rating of 0 indicates no proficiency and 5 denotes the highest level of proficiency.

The highest score is calculated for proficiency in Email and Instant messaging as communication tools.

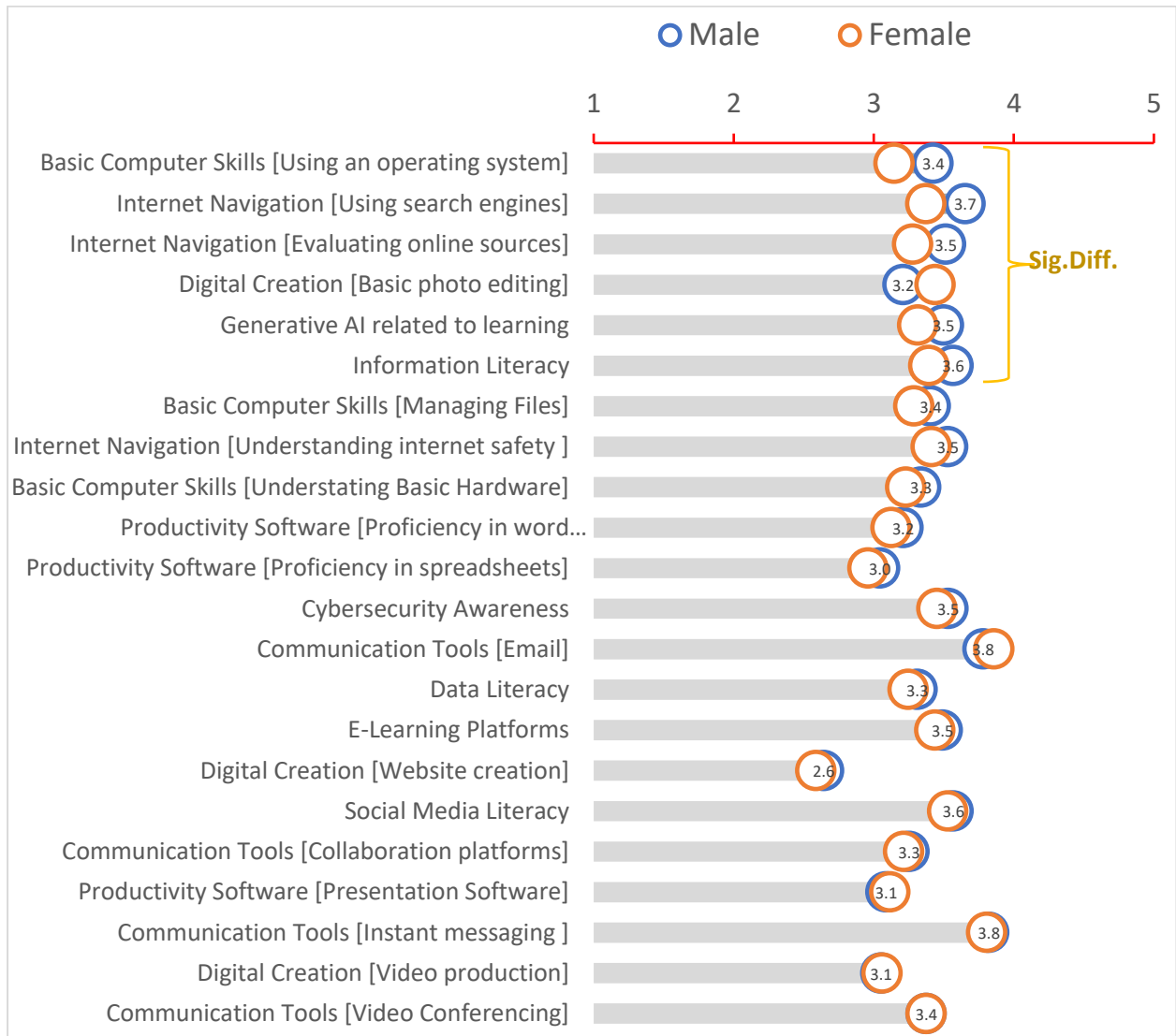


Figure 7: Students - The average score on Digital Literacies Indicators for overall four universities



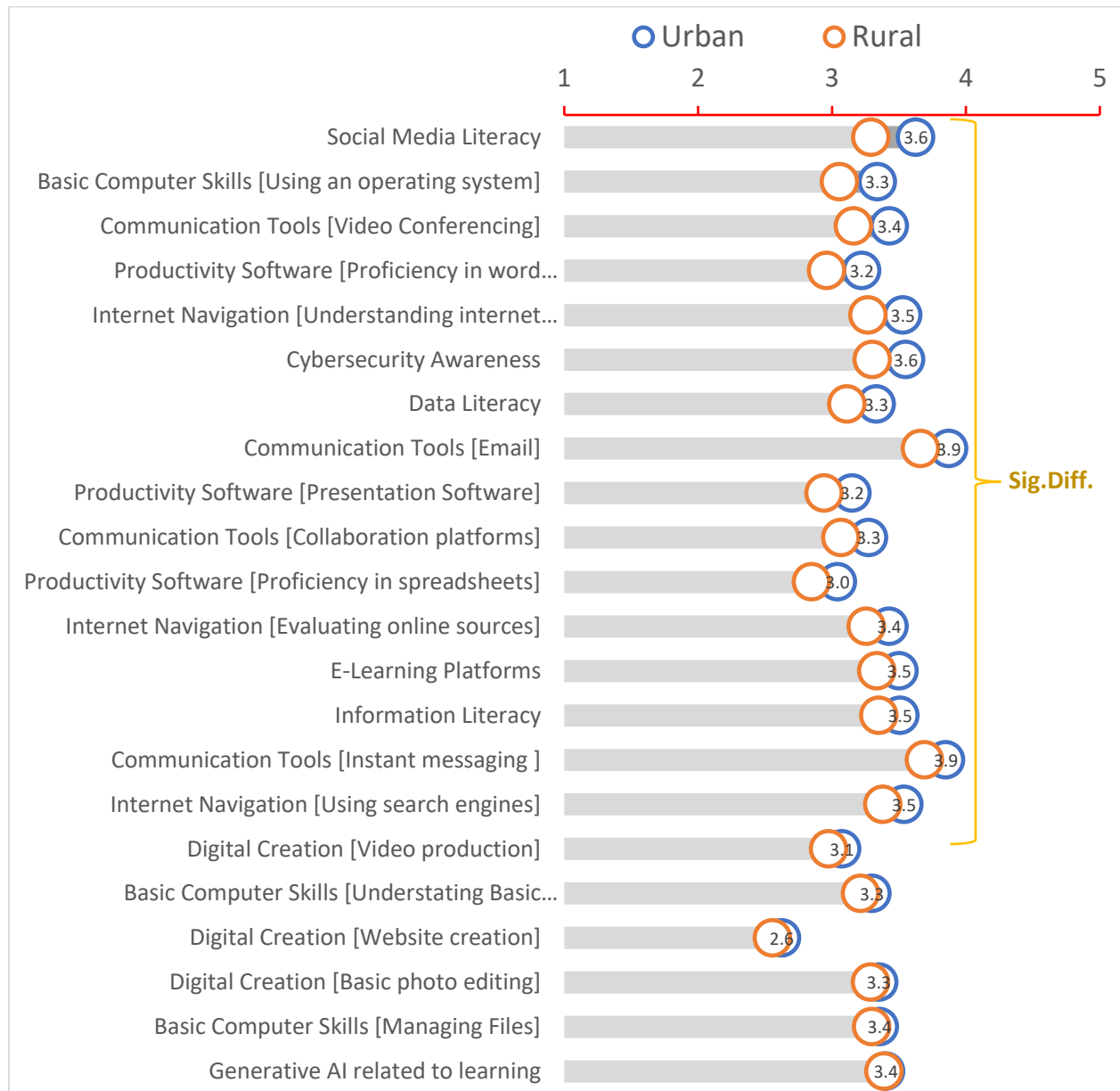
When we check if there are significant differences related to the gender of the students, it can be shown that overall males tend to have a higher level of knowledge of Digital Literacies compared to females, except in Photo Editing where females evaluate themselves with a higher level of knowledge. Differences are significant in favor of males in Using operating Systems, Using searching engines, Evaluating online sources, Generative AI related to learning, and Information Literacy.

Figure 8: Students - Level of knowledge on Digital Literacies by gender



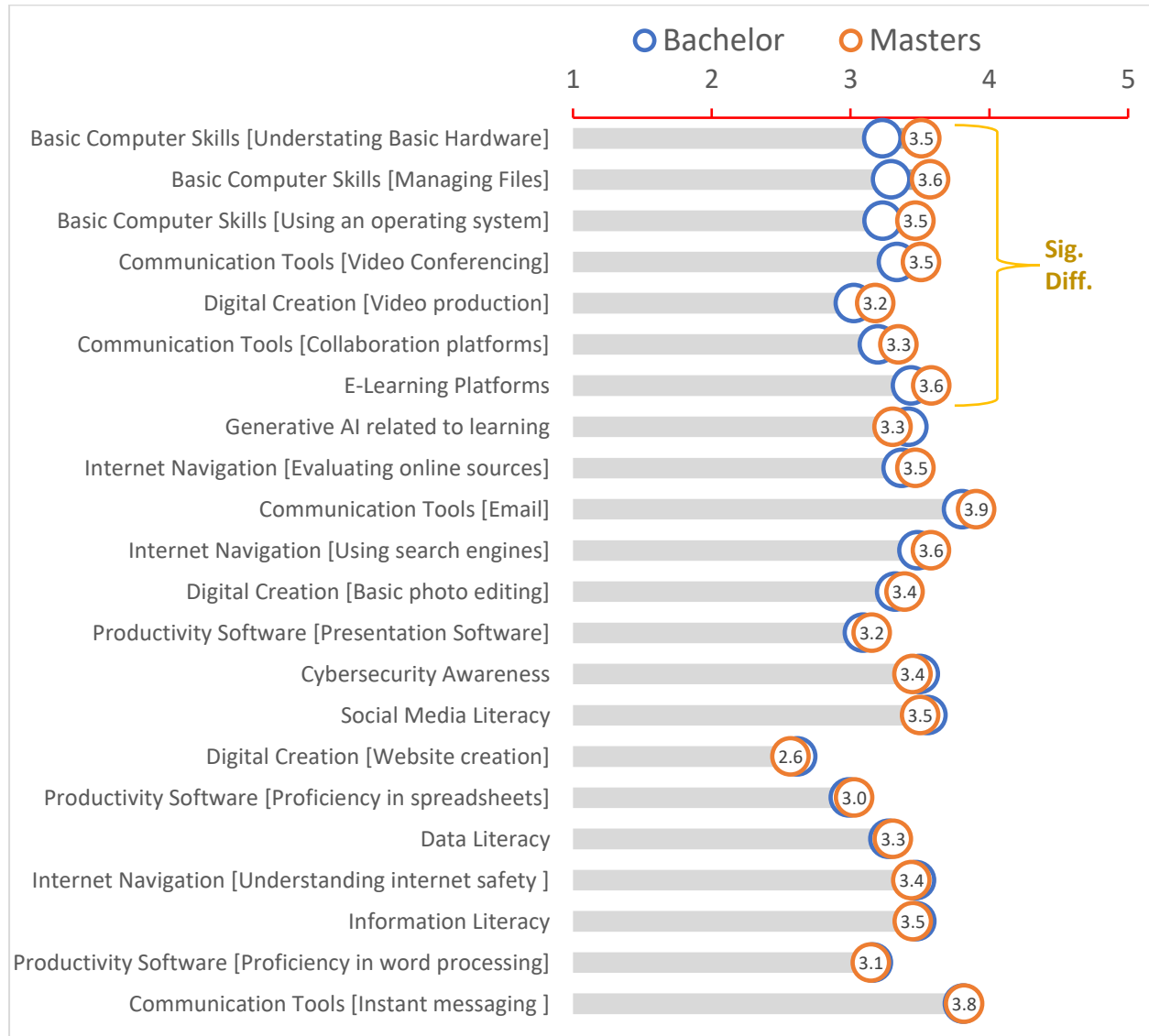
Results by Urbanity show that respondents from urban areas tend to have a higher level of knowledge of all the indicators used to measure Digital Literacies compared to respondents from rural areas. The largest difference is shown in Social Media Literacy, Using an operating system, and Video Conferencing.

Figure 9: Students - Level of knowledge on Digital Literacies by urbanity



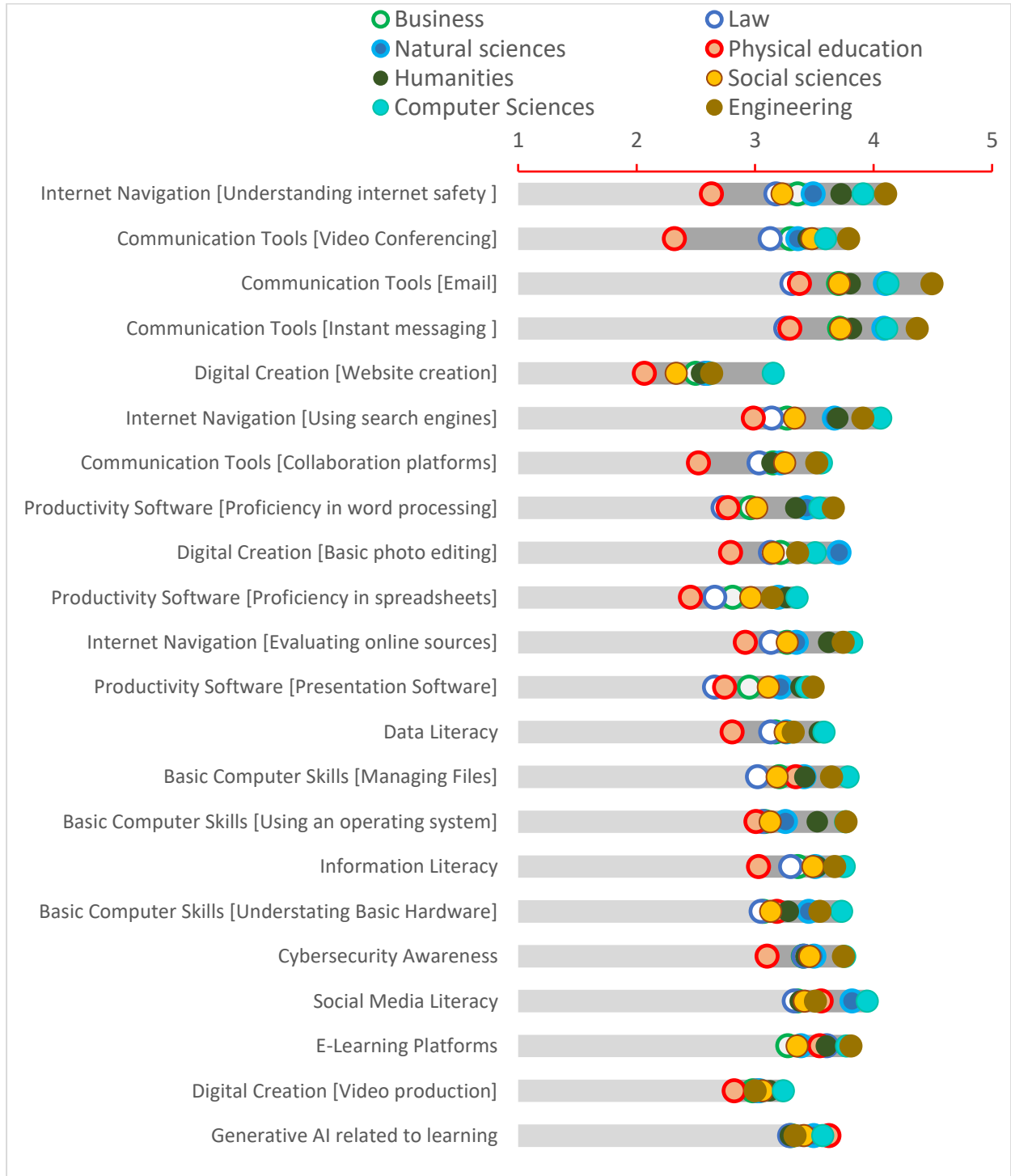
Results by degree level show that master's students are more prone to have a higher knowledge level in Digital Literacies compared to those with a bachelor degree. The largest difference is observed in all three indicators for Basic Computer Skills (Understanding Basic Hardware, Managing Files, and in Using an operating system).

Figure 10: Students - Level of knowledge on Digital Literacies by degree



Data shows that students who study Physical education, Law, and Social Sciences have a lower level of knowledge in Digital Literacies. On the other hand, as expected students who study engineering and Computer Sciences show a higher level of Digital Literacies knowledge.

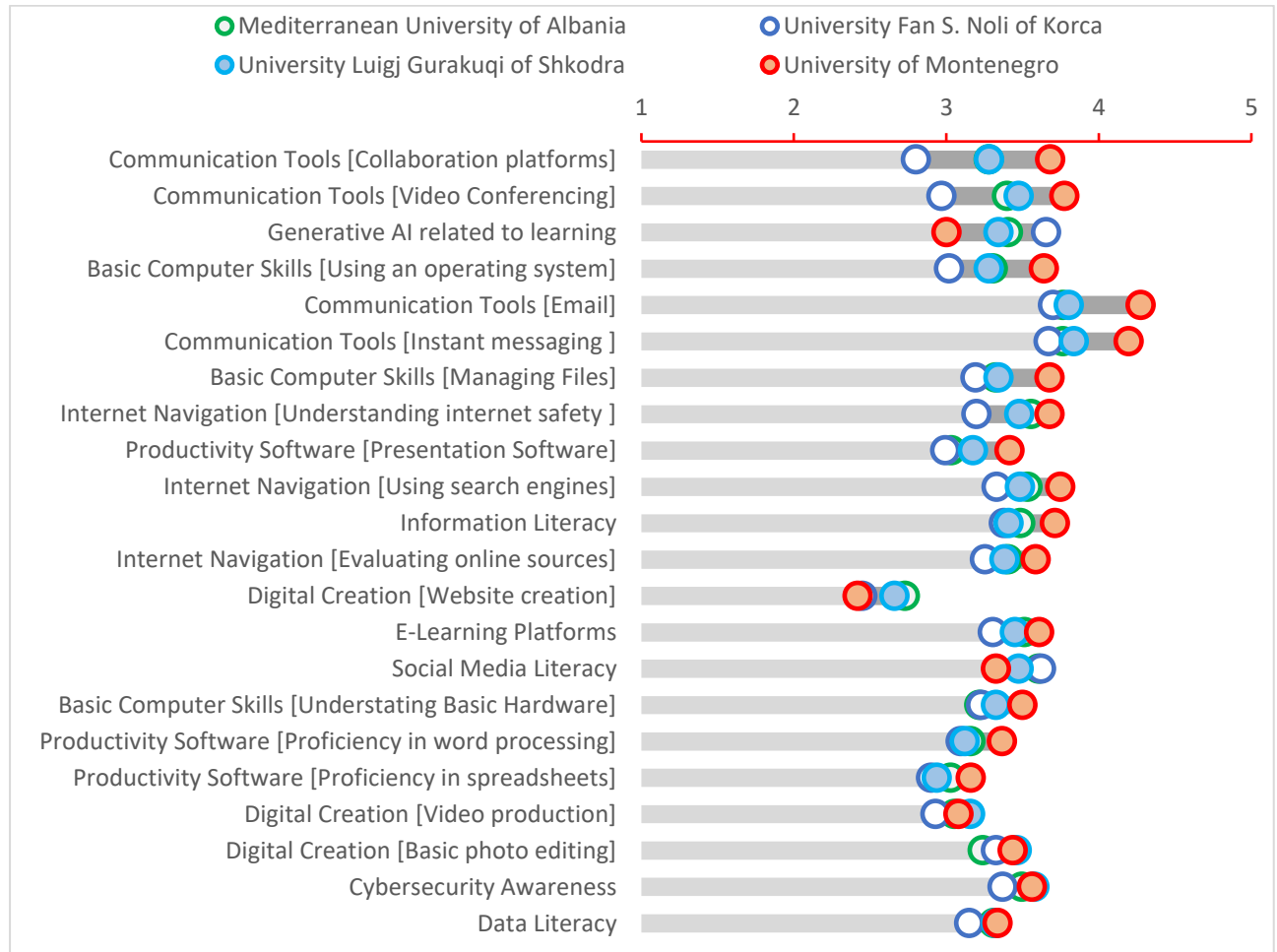
Figure 11: Students - Level of knowledge on Digital Literacies by discipline of studies



Regarding the level of knowledge by university, results show that students at University of Montenegro have a higher level of Digital Literacies, compared to students at other universities.

On the other hand, students at the University of Korça “Fan S. Noli”, resulted with a lower level of Digital Literacies knowledge.

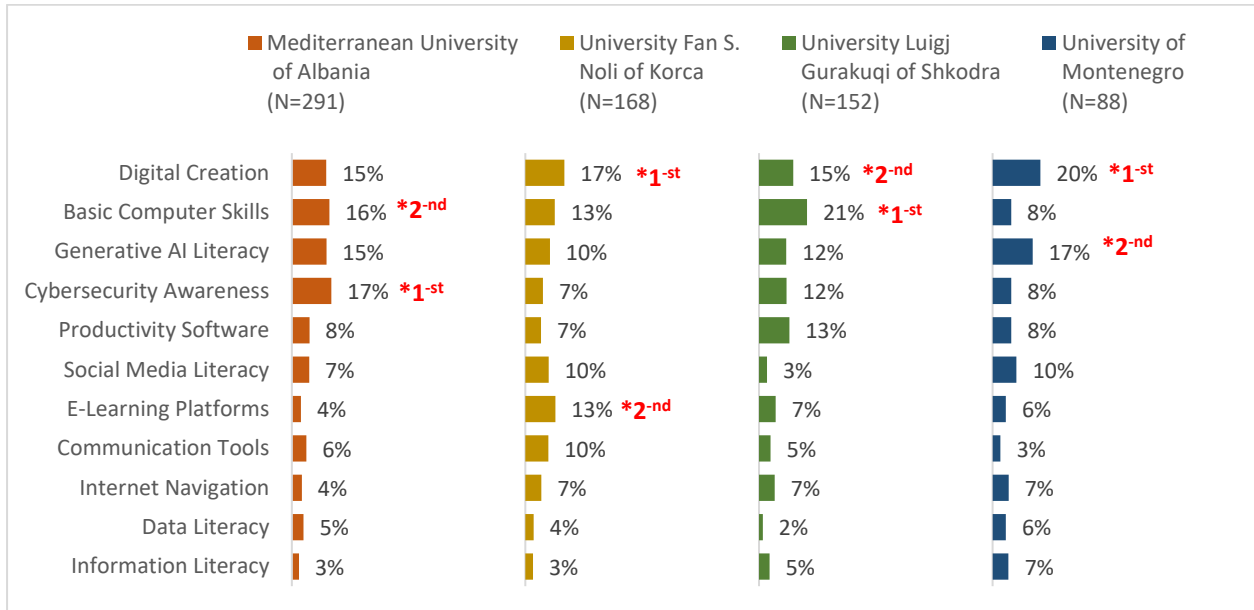
Figure 12: Students - Level of knowledge on Digital Literacies by University



Training Preferences

There are variations in the specific areas of interest among students for improvement at the university level. The digital literacies skill that students at the University of Korça “Fan S. Noli” and the University of Montenegro express the most interest in enhancing is Digital Creation. Conversely, a predominant interest in improving Cybersecurity awareness is observed among the majority of students at the Mediterranean University of Albania. Additionally, students at University of Shkodra “Luigj Gurakuqi” show a keen interest in enhancing Basic Computer Skills.

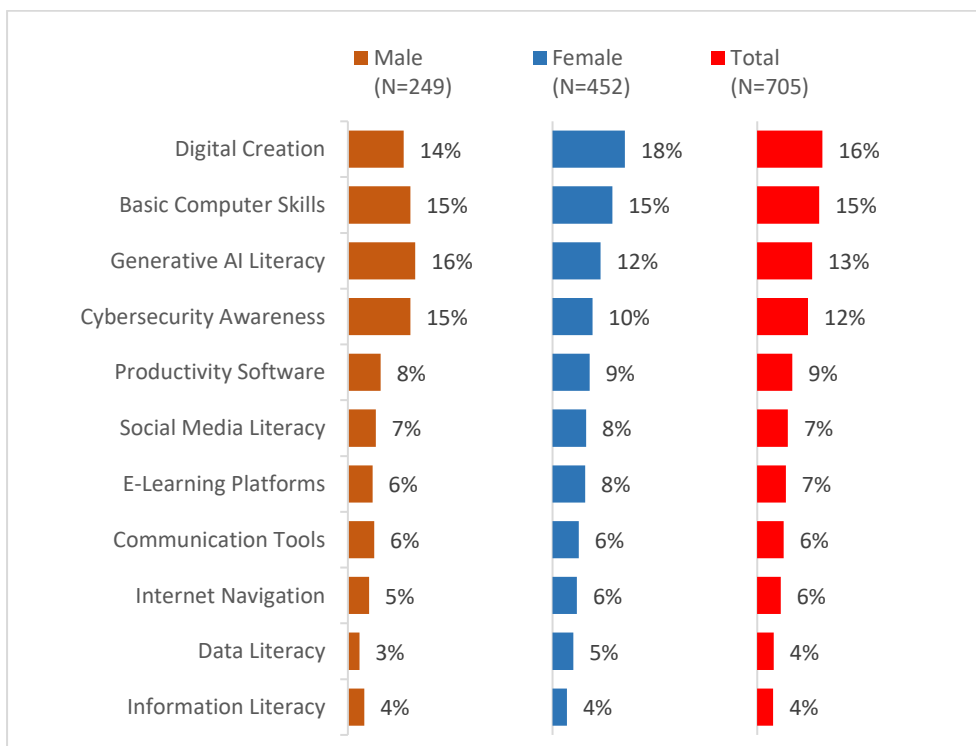
Figure 13: Students - Skills that students are interested in improving, by University



In total four universities, the skill that students are most interested in improving is Digital Creation, meaning Basic Photo Editing, Video Production, and Video Creation. Respectively there are 16% of the students put Digital Creation as the skill they are most interested in improving. The second most chosen skill by 15% of the students is Basic Computer Skills meaning Using an operating system, managing files, and understanding basic hardware.

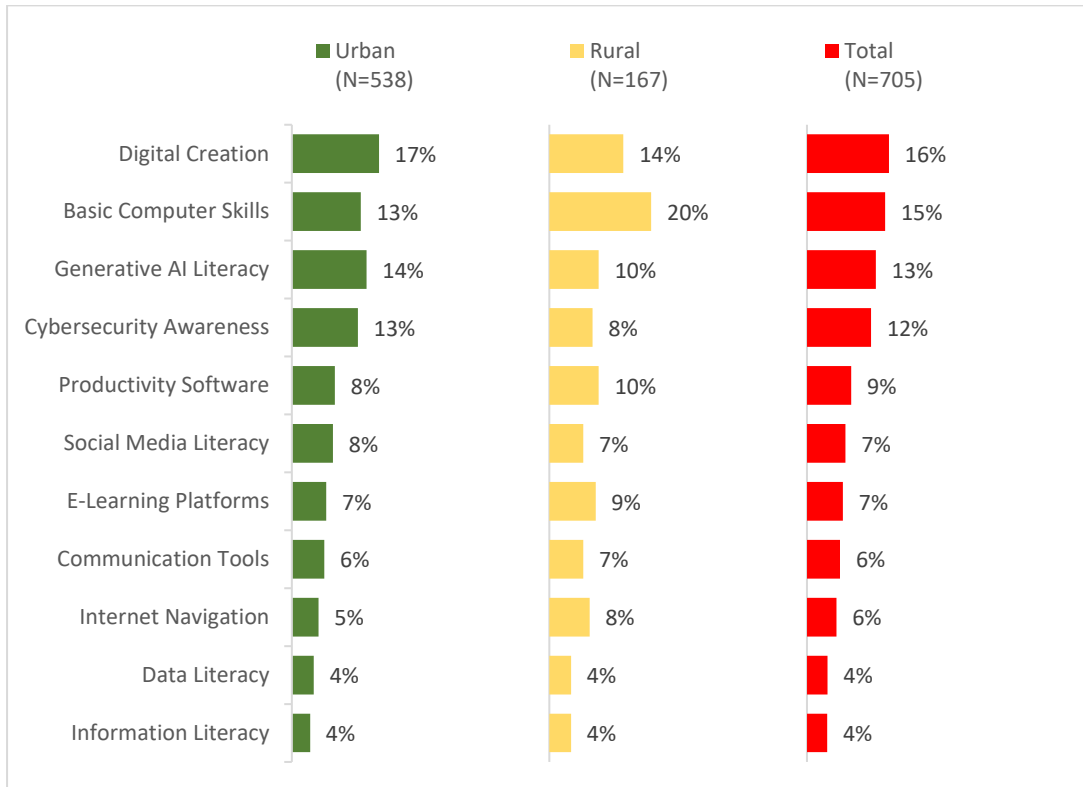
For males the skill they are the most interested in improving is Generative AI Literacy (16% of male students). For females the ranking does not change from the total four universities.

Figure 14: Students - Skills that students are interested in improving, by gender



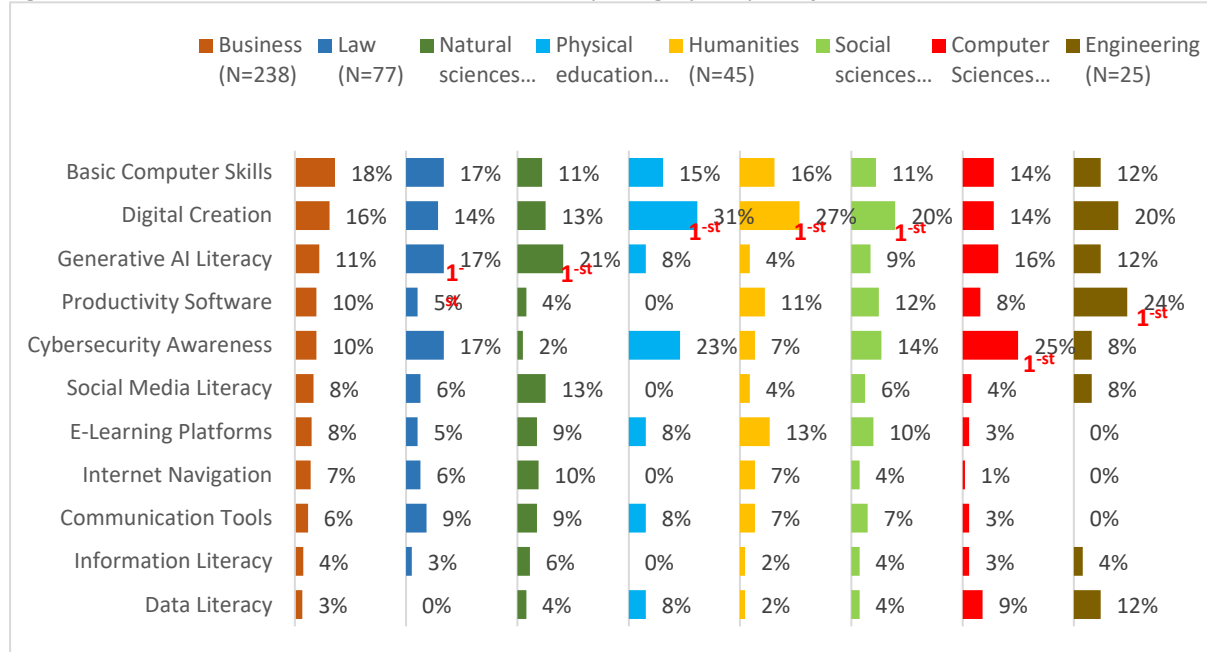
Moreover, distinctions exist between students hailing from rural and urban areas. Approximately 20% of students in rural areas express an interest in enhancing Basic Computer Skills, in contrast to a lesser percentage of 13% among students residing in urban areas. Conversely, students from urban areas display a primary interest in enhancing Digital Creation (17% of them) and Generative AI Literacy (14%).

Figure 15: Students - Skills that students are interested in improving, by urbanity



Students majoring in business express the greatest interest in enhancing Basic Computer Skills (18%), whereas students in Physical Education (31%), Humanities (27%), and Social Sciences (20%) show an interest in improving Digital Creation. Conversely, students in Law (17%) and Natural Sciences (21%) are primarily interested in advancing Generative AI Literacy. Notably, those pursuing studies in Engineering prioritize improving Productivity Software (24%), while students in Computer Sciences (25%) exhibit the highest interest in Cybersecurity Awareness.

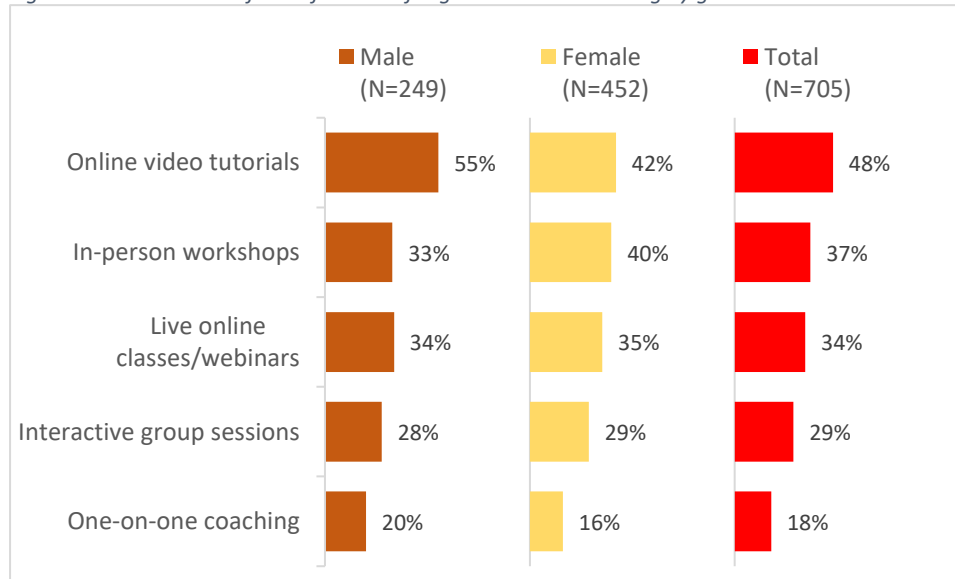
Figure 16: Students - Skills that students are interested in improving, by discipline of studies



Preferred training format

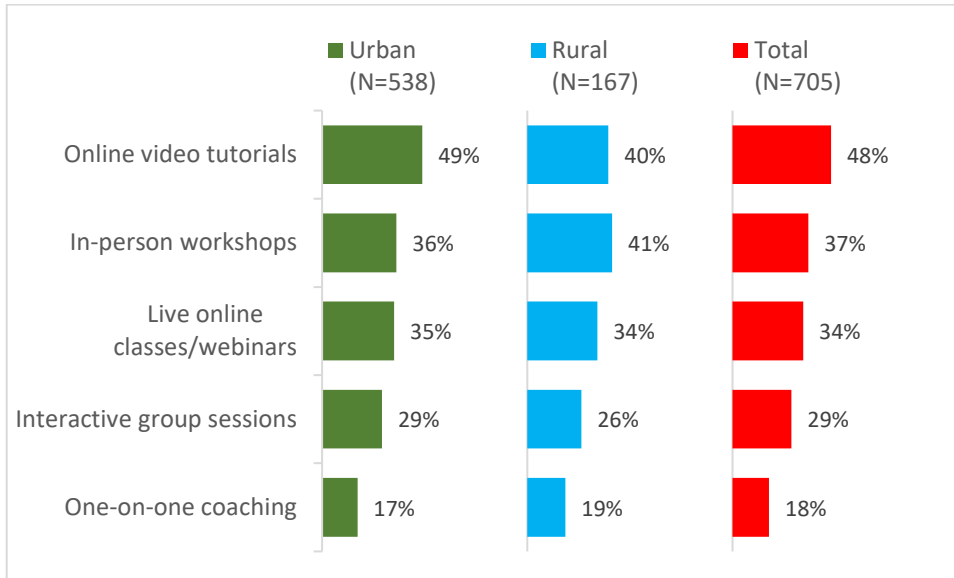
Regarding preferred ways of training format, almost half of the student respondent (48%) prefer Online Video Tutorials. Online Video Tutorials is preferred more by males (55% of the total males) than females (42% of the total females). On the other hand, In-person Workshops are more preferred by 40% of females, compared to 33% of males.

Figure 17: Students - Preferred formats of Digital Literacies training by gender



Almost half of the students from urban areas (49%), prefer Online Video Tutorials compared to 40% of others living in rural areas. In-person workshops are more preferred by students from rural areas, with 41% expressing a preference for them, in contrast to 36% of students from urban areas.

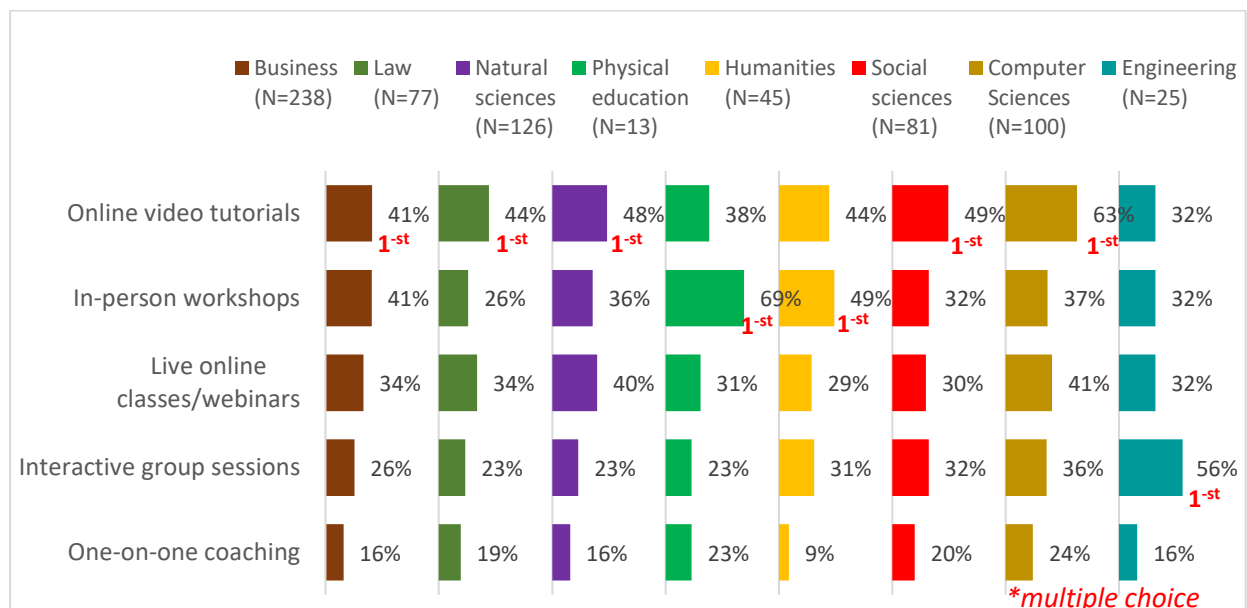
Figure 18: Students - Preferred formats of Digital Literacies training by urbanity



Online Video Tutorials are the preferred format of Digital Literacy training for students who study Business (41%), Law (44%), Natural Sciences (48%), Social Sciences (49%), and Computer Sciences (63%). For students who study physical education (69%), and Humanities (49%) the preferred way of training is In-person Workshop. The Interactive Group Sessions are the preferred way for Engineering students (56%).

The results for Physical Education and Engineering students are only indicative and not statistically significant.

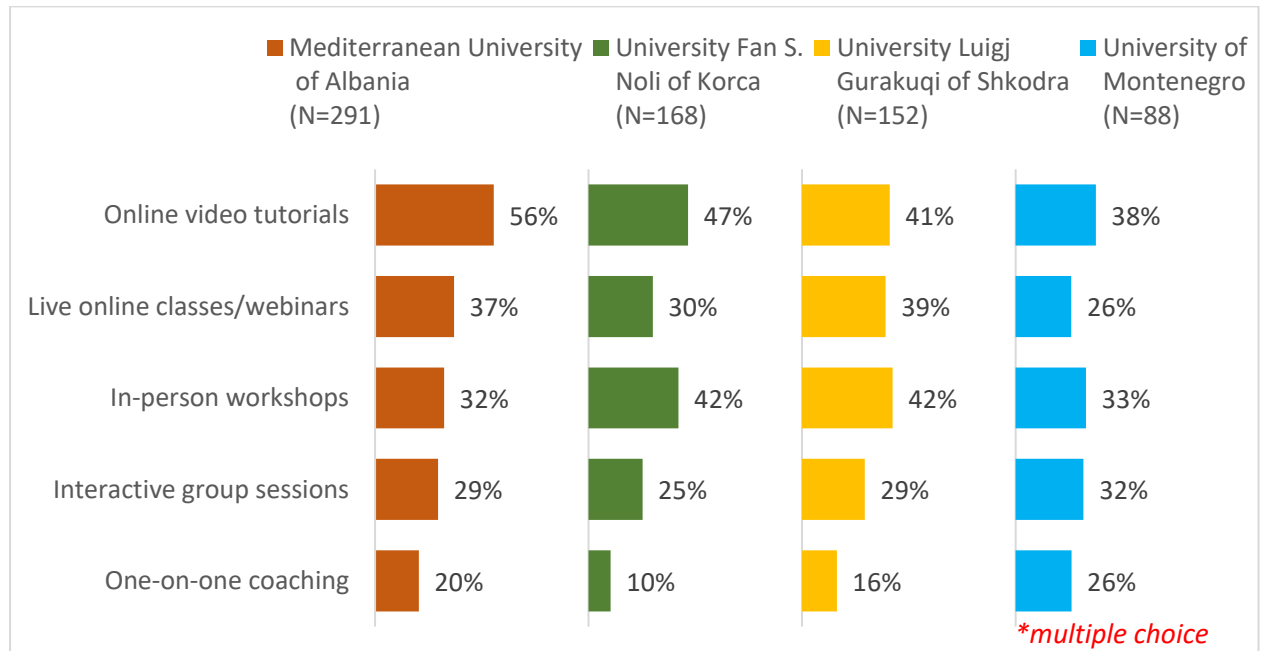
Figure 19: Students - Preferred formats of Digital Literacies training by discipline of studies



Students of the Mediterranean University of Albania (56%) prefer more Online Video tutorials compared to students of other universities. The most preferred format of training for students of the University of Shkodra “Luigj Gurakuqi”, is an In-person Workshop (preferred by 42% of students of this university).

Students were given to choose more than one preferred way of training, so we can find out which format of training is more likable.

Figure 20: Students - Preferred formats of Digital Literacies training, by University



Results from the Focus Group Approach indicate a prevalent preference among students for face-to-face training over online alternatives. This inclination is attributed to the perception that concentration levels are higher in face-to-face sessions compared to online formats. In contrast to their counterparts, students from the University of Shkodra “Luigj Gurakuqi” exhibit a preference for online training due to its flexibility.

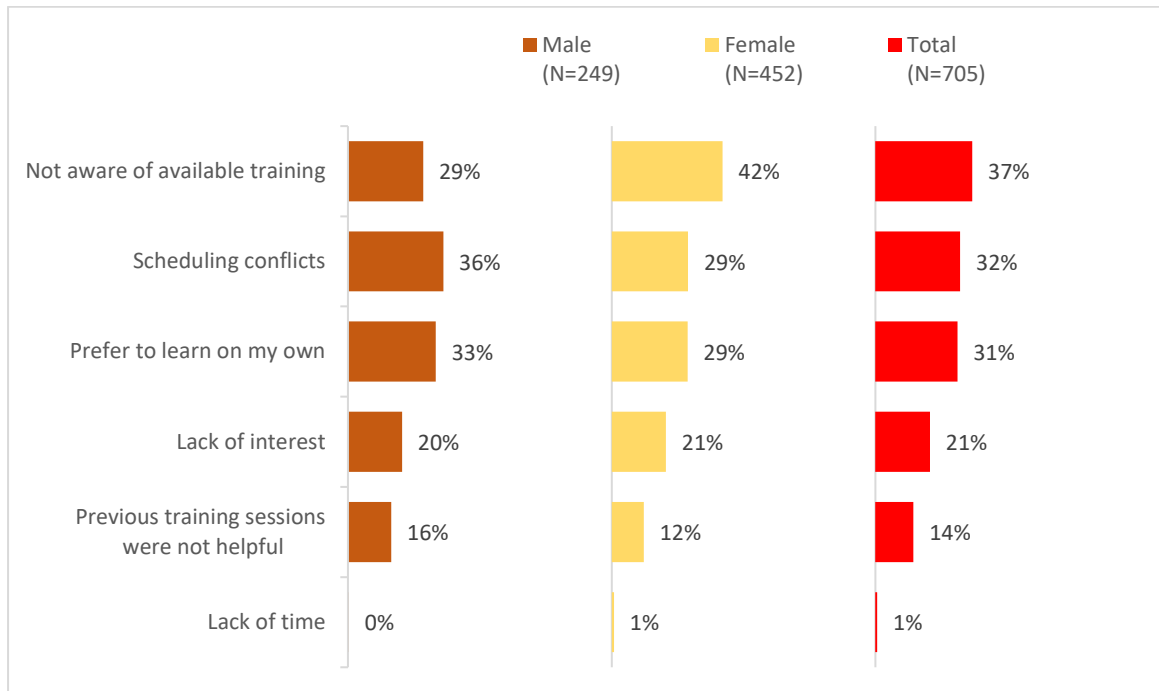
Moreover, a consensus among students highlights the efficacy of video tutorials as an excellent method of training and teaching. The flexibility to access videos at any time and review content as needed is deemed advantageous for better understanding.

The findings derived from focus groups align closely with quantitative results, wherein a majority of students express a preference for Online Video Tutorials, followed by In-person Workshops.

Barriers to attending training sessions on digital literacies

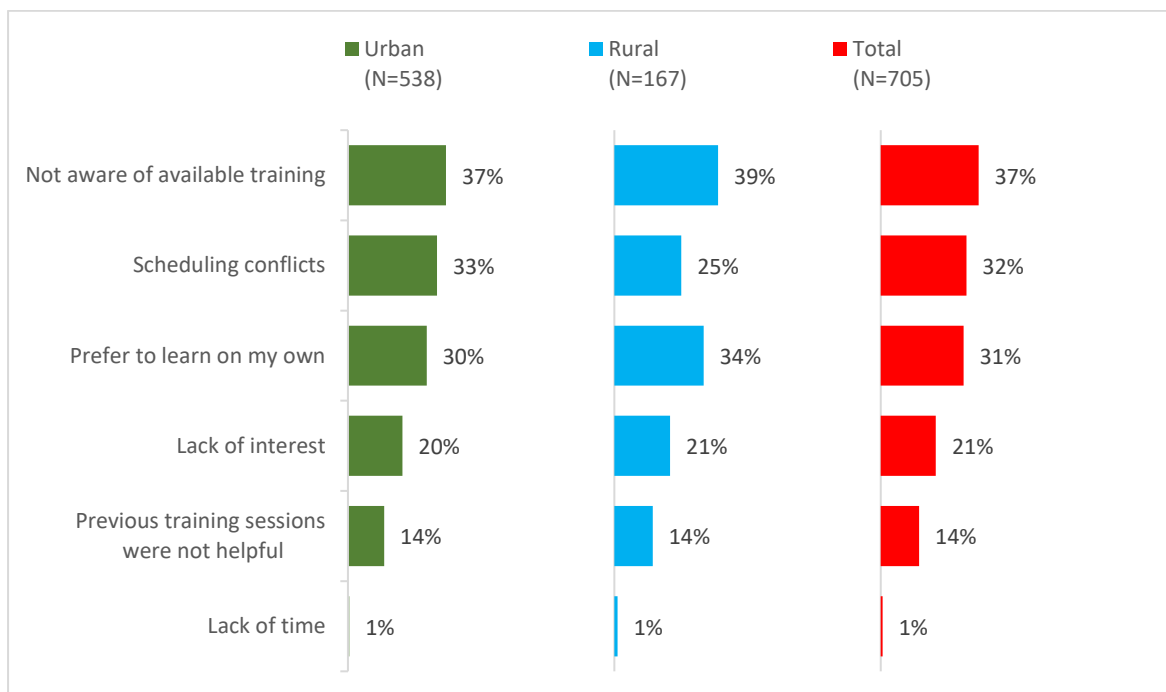
Students were asked about barriers to attending the training sessions. Awareness of available training is considered as the main barrier by students of the total four universities (37%). The second main problem is scheduling conflict (32%). Scheduling Conflicts are the main barrier to attending training for males (36%), while for females the main problem is the awareness of available training (29%).

Figure 21: Students - Barriers to attending training sessions by gender



There are some differences between urban and rural students, in the scheduling conflict, where 33% of students from urban areas consider it as a barrier, compared to 25% of students from rural areas. The primary challenge faced by students residing in both urban and rural areas is a lack of awareness regarding the availability of training opportunities. Specifically, 37% of students from urban areas and 39% of students from rural areas report a lack of awareness as a significant issue.

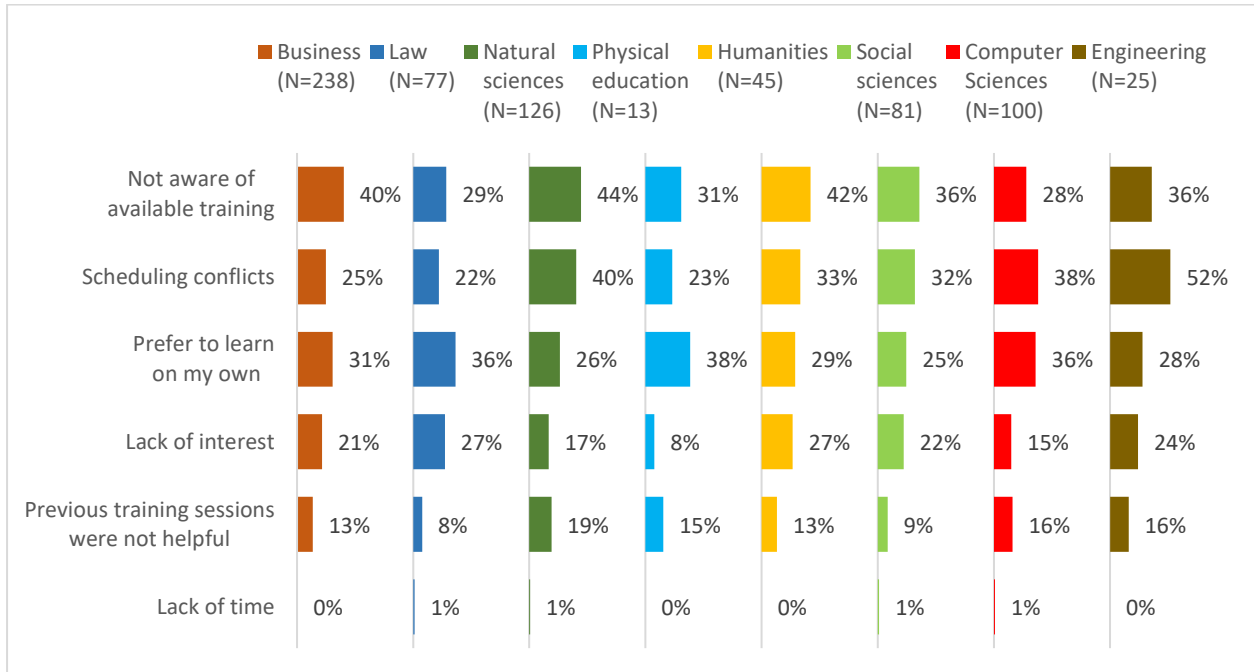
Figure 22: Students - Barriers to attending training sessions by gender and urbanity



Disaggregation by the discipline of studies shows that Awareness of available trainings is the main barrier for students who study Business (40%), Natural Sciences (44%), Humanities (42%), and Social

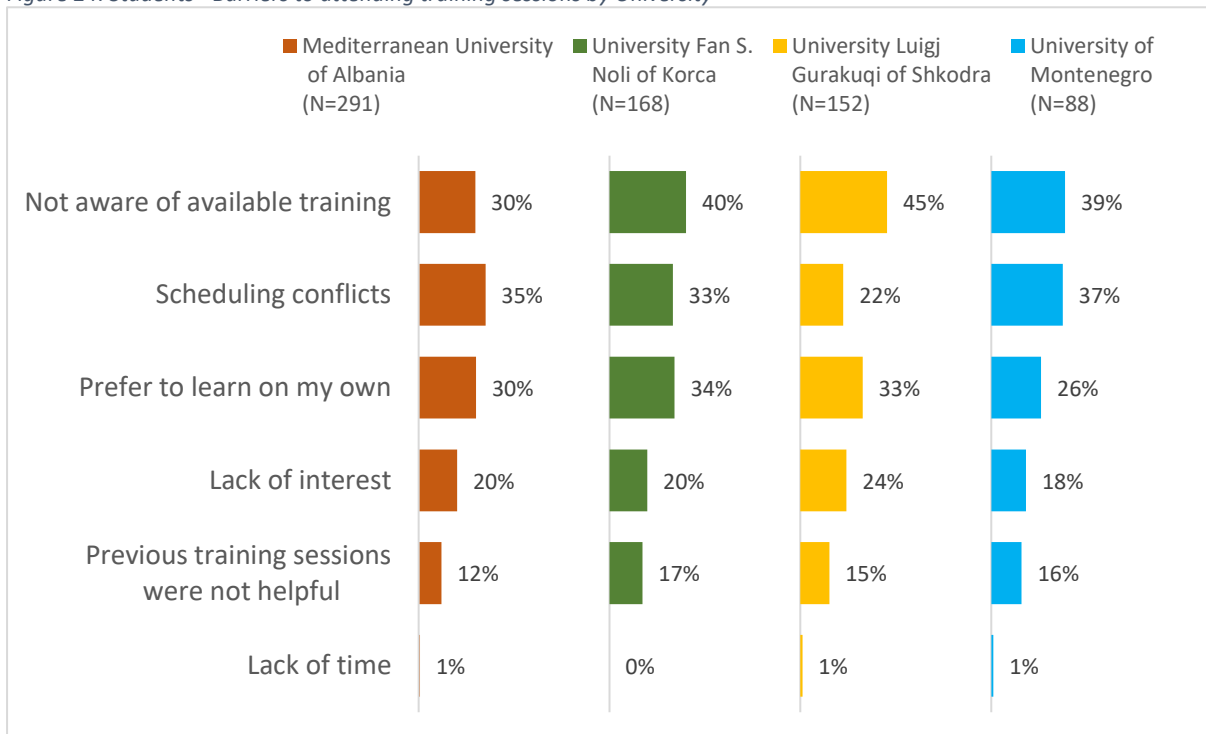
Sciences (36%). About 36% of Law students declare that they prefer to learn on their own. The same percentage is for Computer Science students. Computer Science students (38%) and Engineering students see as their main barrier Scheduling conflicts.

Figure 23: Students - Barriers to attending training sessions by discipline of studies



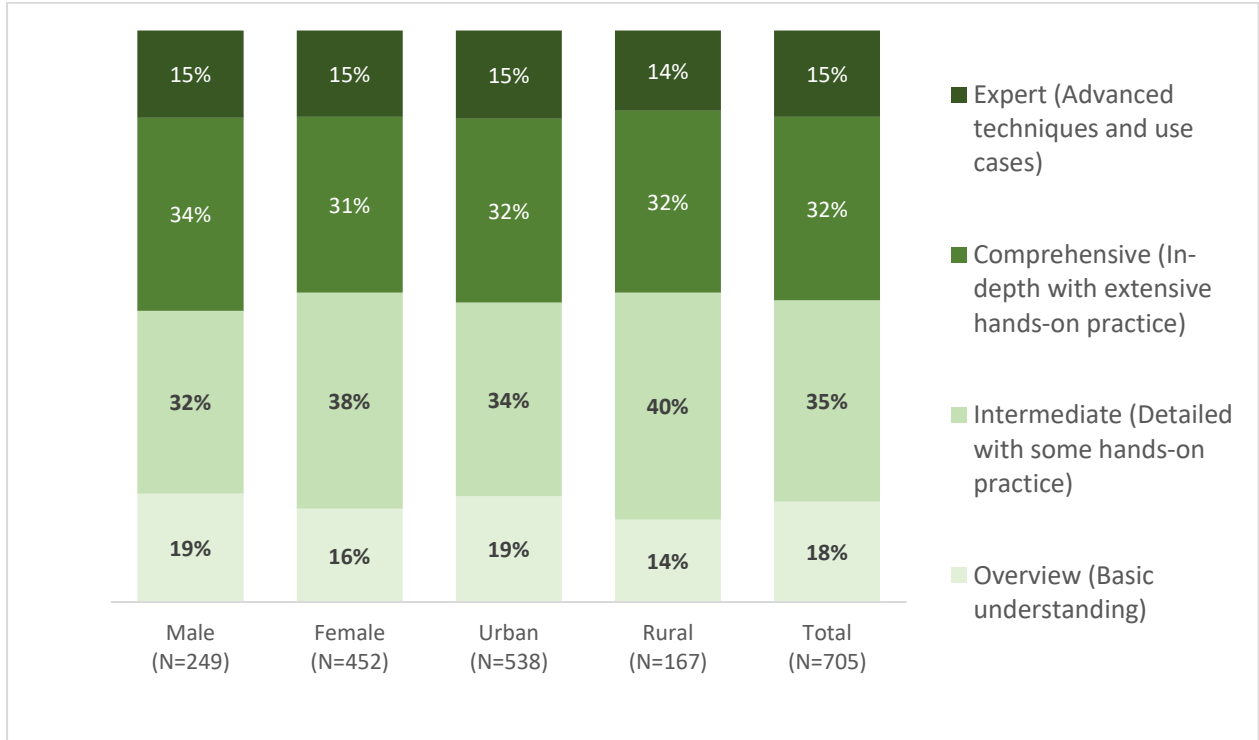
Disaggregation by university shows that Scheduling Conflicts are the main problem for students of Mediterranean University of Albania (35%), while for all other students of other universities is the awareness of available training.

Figure 24: Students - Barriers to attending training sessions by University



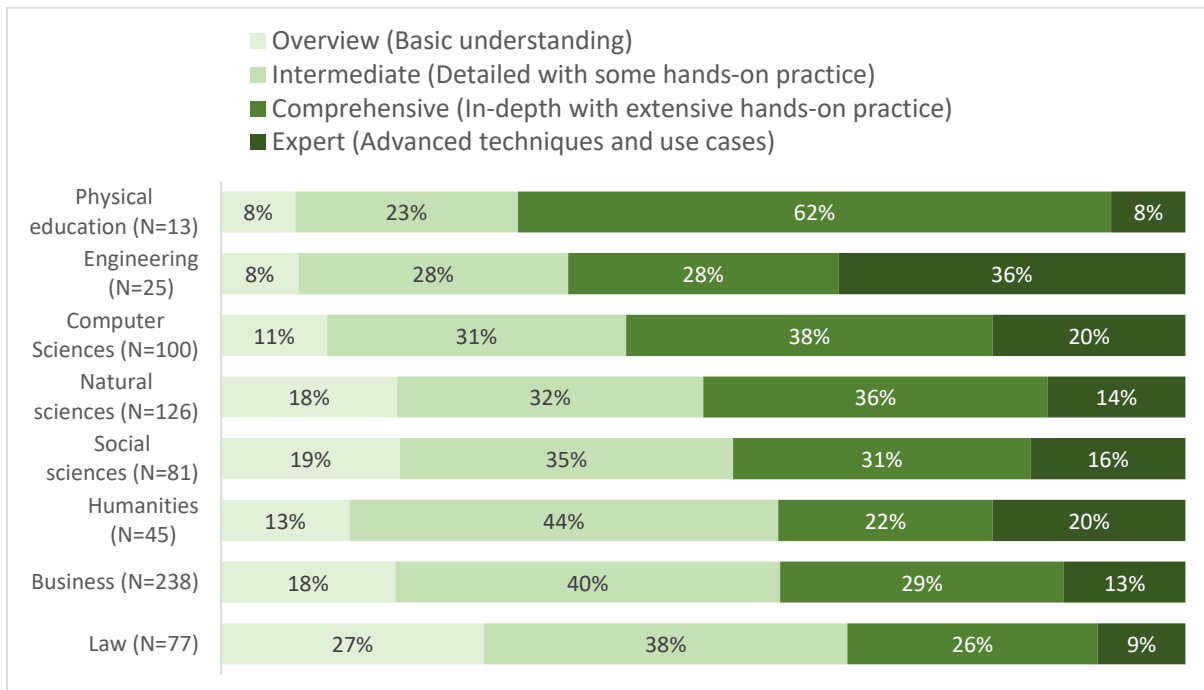
When asked about the preferred format of Digital Literacies training, 15% wanted expert-level training, and 32% an Comprehensive (In depth with extensive hands-on practice).

Figure 25: Students - The preferred format of Digital Literacies training by gender and urbanity



With the exception of the Physical Education results, which lack statistical significance but provide indicative insights, students in the fields of Engineering and Computer Sciences express a greater inclination towards desiring training at the expert level or, at the very least, comprehensively, in comparison to their peers in other academic disciplines.

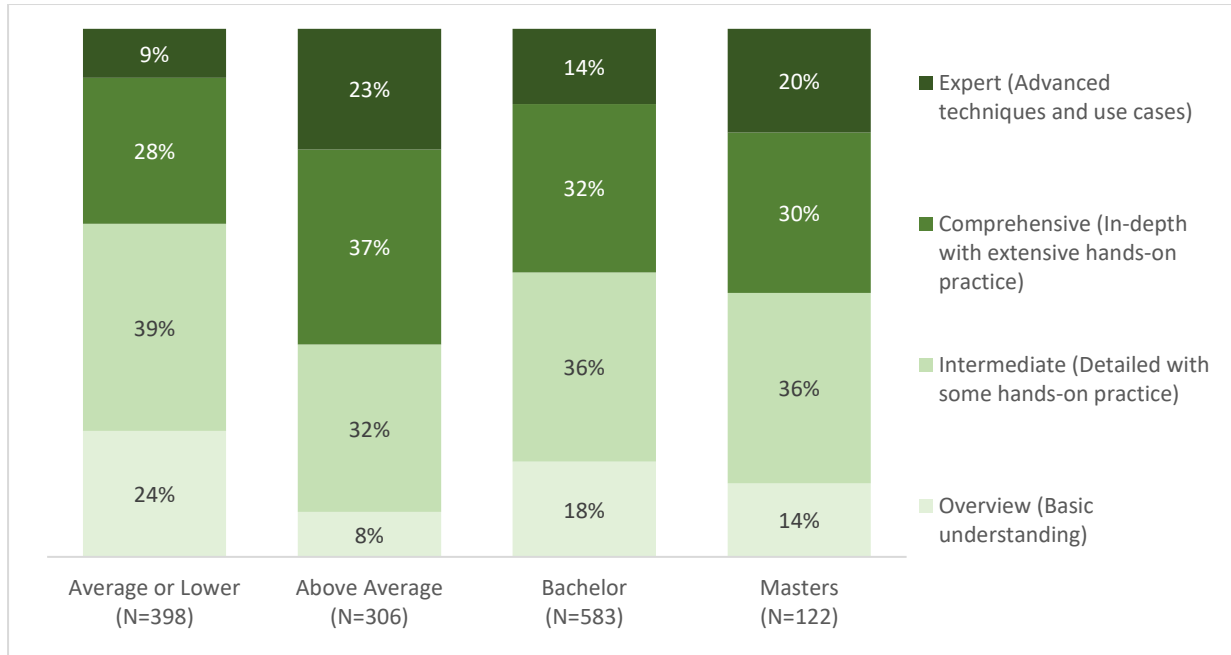
Figure 26: Students - The preferred format of Digital Literacies training by discipline of studies



Results by degree level show that Master Students are more interested in Expert level trainings about digital literacies compared to bachelor students (20% vs 14%).

Students with a higher level of Digital Literacies knowledge are more prone to want Expert level trainings compared to others with an average or lower level of knowledge on Digital Literacies.

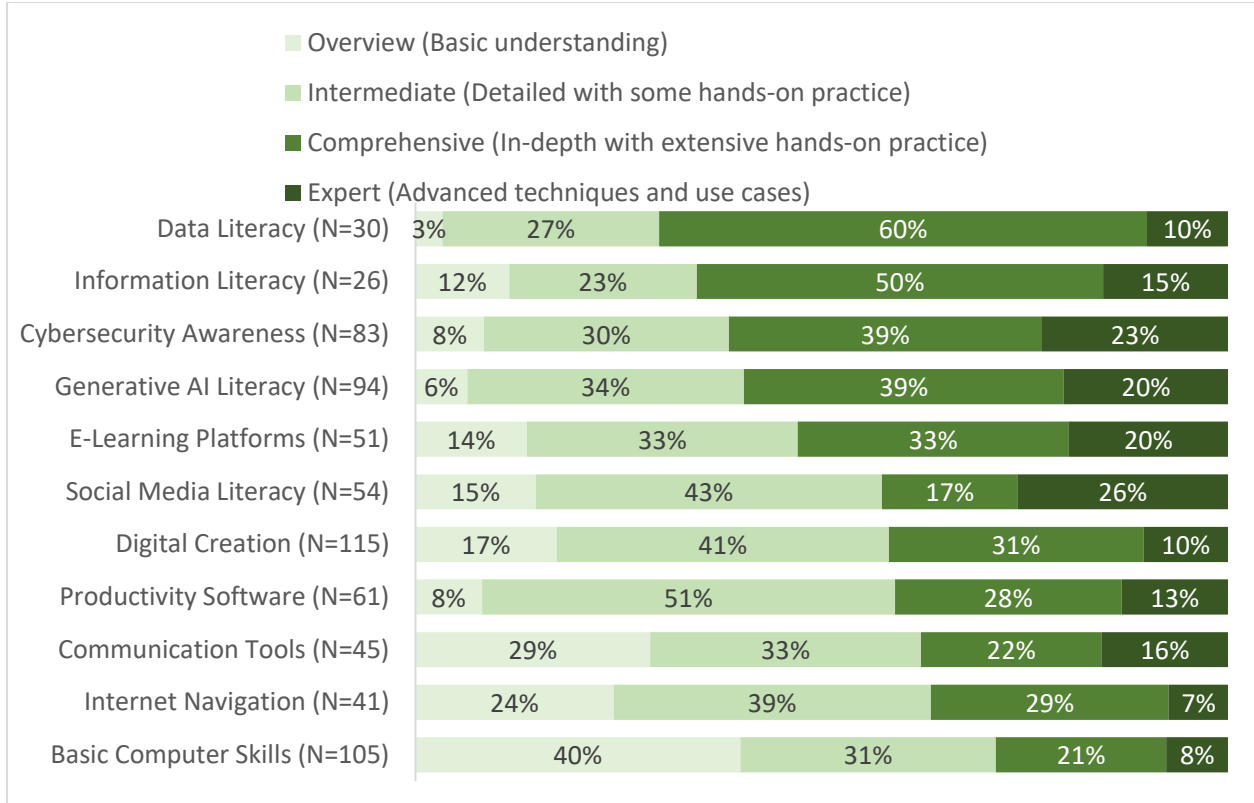
Figure 27: Students - The preferred format of Digital Literacies training by Degree and the level of Digital Literacies knowledge



In the graph below is shown what format of training is preferred by students that are most interested in a specific Digital Literacies skill they want to improve. Students who are most interested in improving Data Literacy and Information Literacy prefer trainings to be at least Comprehensive.

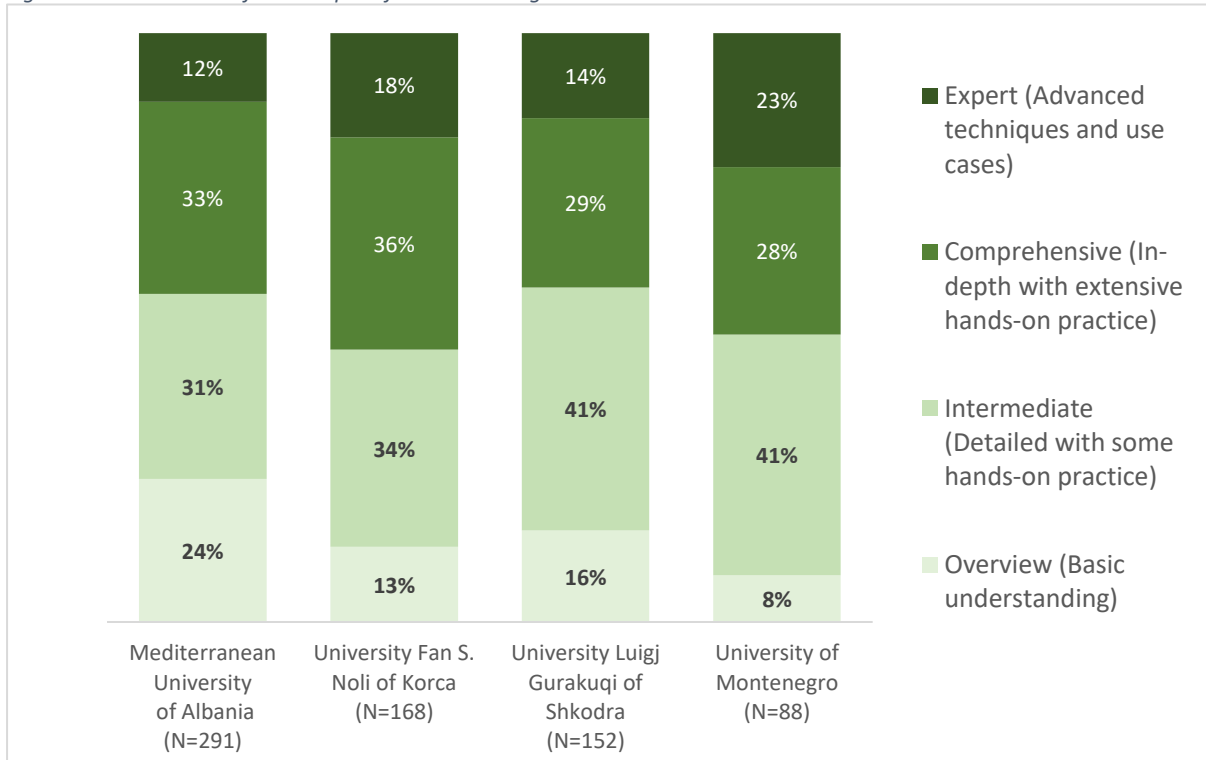
Students who are most interested in E-Learning Platforms want their training to be at an expert level (26% of them) more than other students that want to improve other Digital Literacies skills.

Figure 28: Students - The preferred format of Digital Literacies training by the Digital Literacies skill that students want to improve the most



Students of University of Montenegro and University of Korça “Fan S. Noli”, are more interested in taking Expert (advanced techniques and use cases) courses, compared to students of other universities.

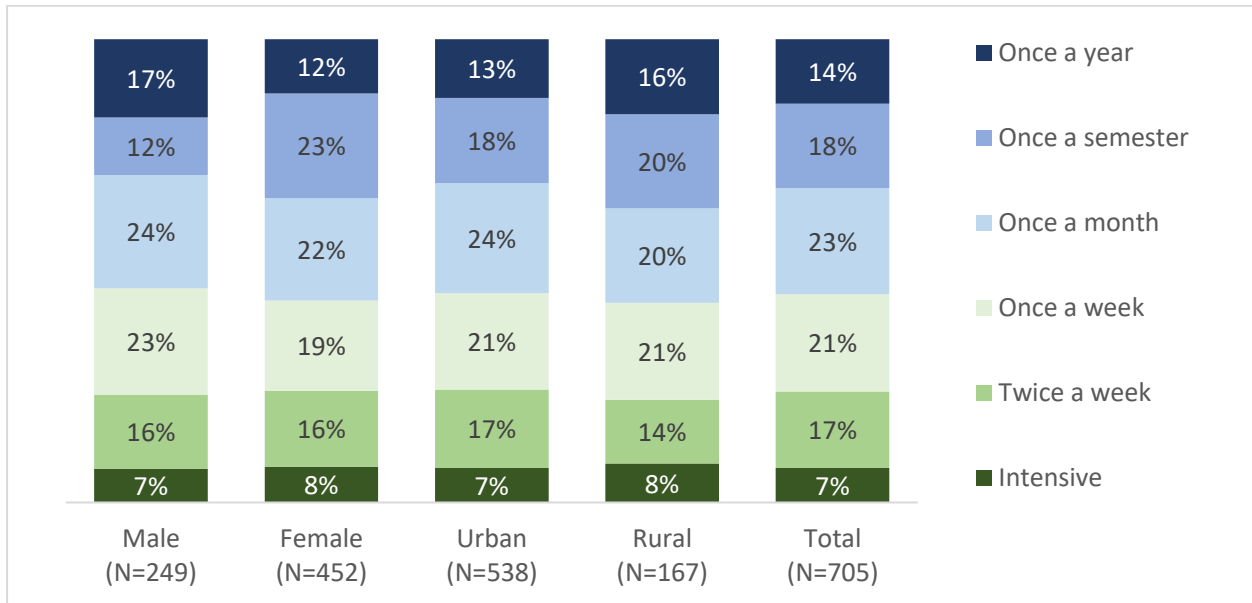
Figure 29: Students - Preferred Depth of Detail Training across Universities



Results of frequency of desired training sessions show that 7% of the total students like to do intensive training, 17% twice a week, and 21% once a week.

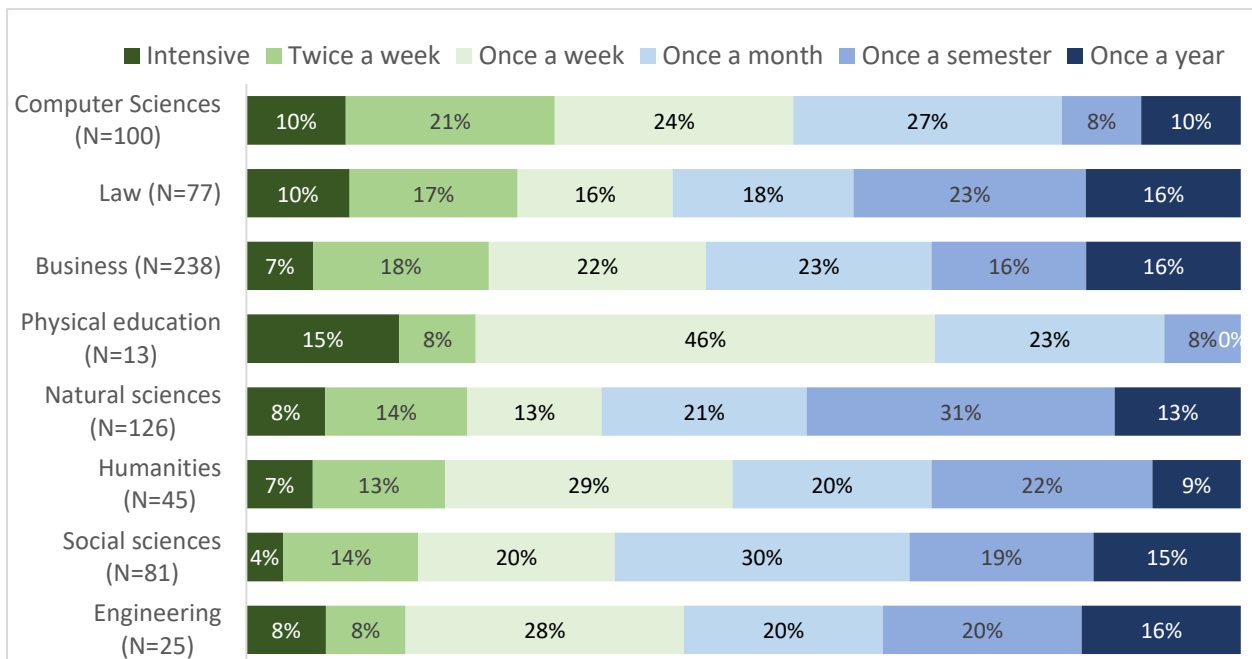
There are some differences between males and females, and by urbanity. For example, 12% of males want training to be once a semester, compared to 23% of females.

Figure 30: Students - Frequency of training session by gender and urbanity



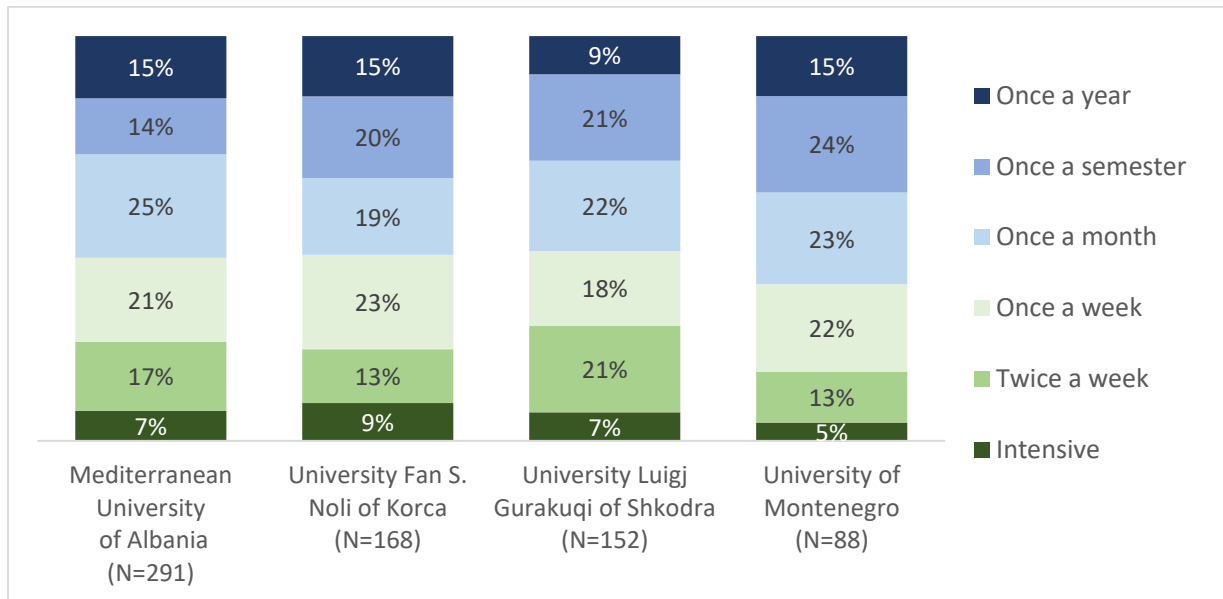
Results by discipline of studies show that Computer Science students and Law students prefer more intensive training sessions compared to students of other disciplines. On the other hand, students of Engineering (results indicative) and Social Sciences prefer less intensive courses.

Figure 31: Students - Frequency of training sessions by discipline of studies



Students of University of Montenegro want their training to be with a lower frequency compared to students of other universities.

Figure 32: Students - Frequency of training sessions by university



Focus Groups:

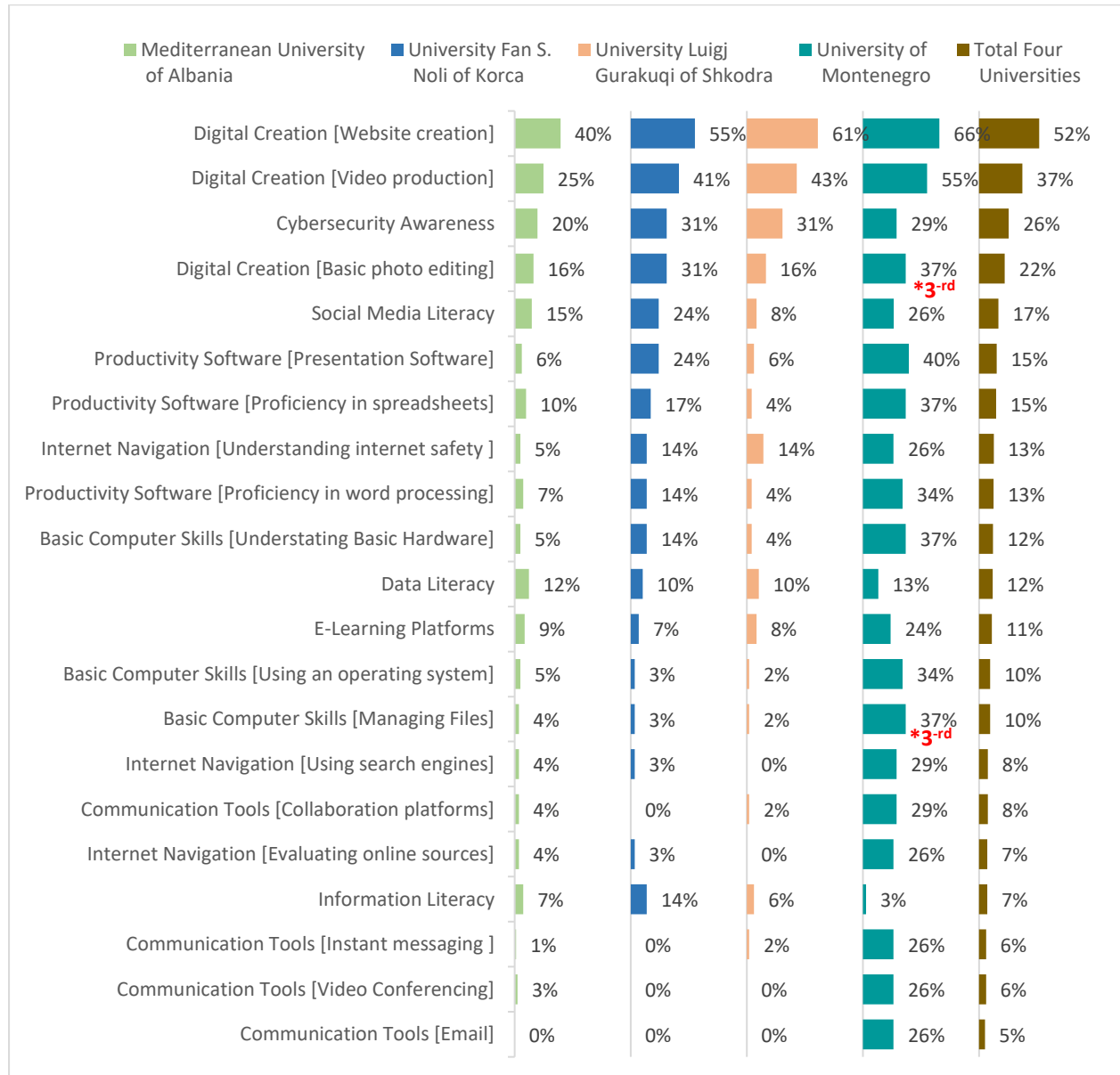
Moreover, insights from the Focus Group underscore a keen interest among students in Digital Literacies training. They advocate for subtle yet impactful changes, such as the adoption of formal communication through email with the university, departing from the prevalent use of WhatsApp in most cases. Beyond expressing appreciation for the benefits of digital tools, students also voice concerns. A student at University of Montenegro articulated a sentiment, stating, "I have the feeling that as Artificial Intelligence grows, our intelligence decreases, and we have no need to develop." This sentiment reflects widespread apprehension among students about the rapid advancement of digital tools, with concerns that artificial intelligence might replace the cognitive processes of students, leading to a perceived diminishing need for personal development. Conversely, other students view AI as a valuable tool that aids them in their work and enhances critical thinking skills. This dichotomy highlights the diverse perspectives among students regarding the role of AI in education and its impact on their intellectual growth.

3.2 Findings regarding lecturers

Level of Knowledge

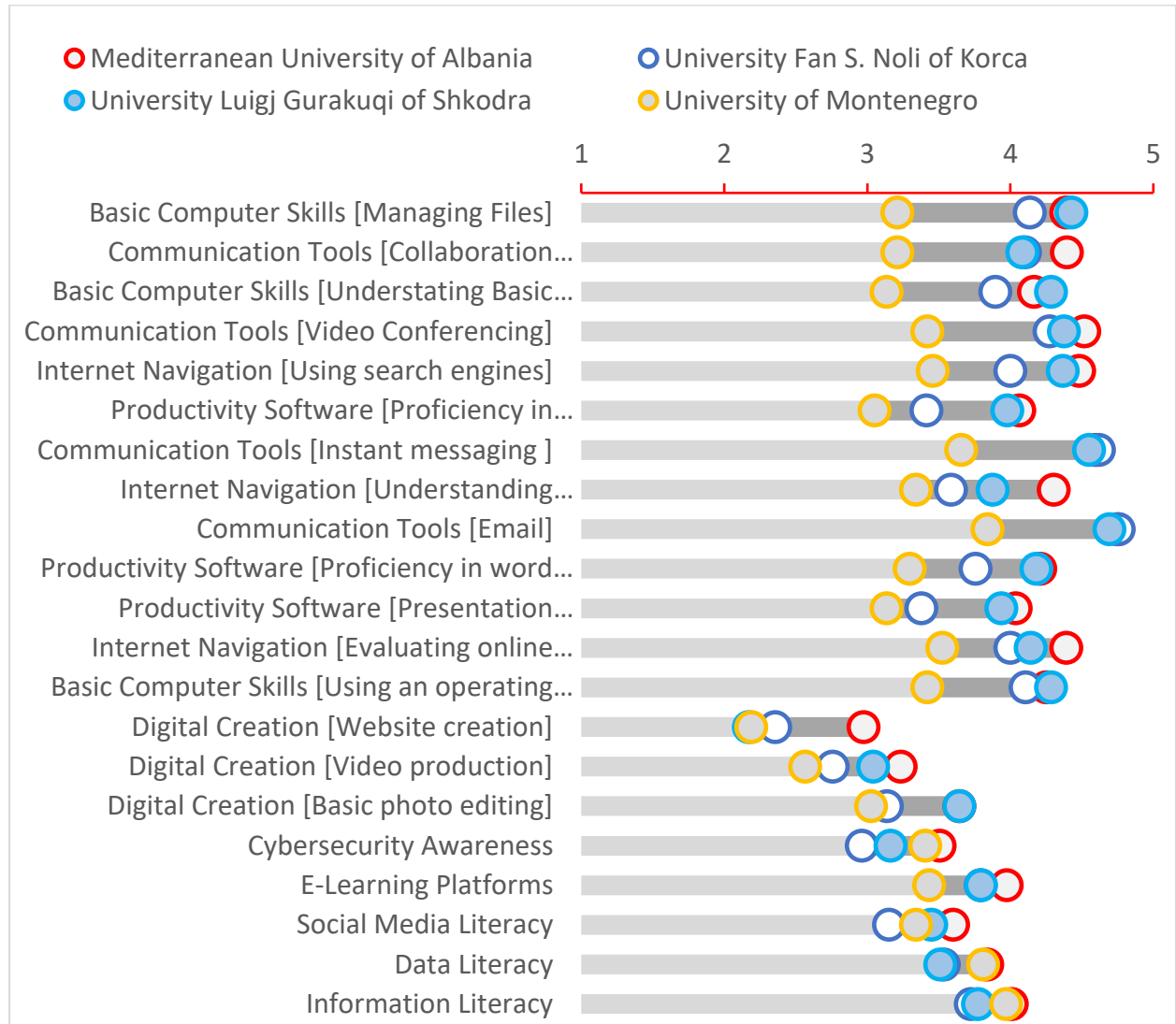
Overall, for the total four universities, half of the Lecturers (52%) have “no proficiency” or “limited proficiency” in Website Creation. About 26% of lecturers of the total four universities lack proficiency in Cybersecurity Awareness. Lack of proficiency is observed even in Basic Computer Skills as Understanding Basic Hardware (12% “no proficiency” and “limited proficiency”), Data Literacy (12%), Proficiency in Word Processing (13%), in Internet Navigation (Understanding internet safety – 13%), and so on.

Figure 33: Lecturers - Students who have "no proficiency" or "limited proficiency" in Digital Literacies, by University



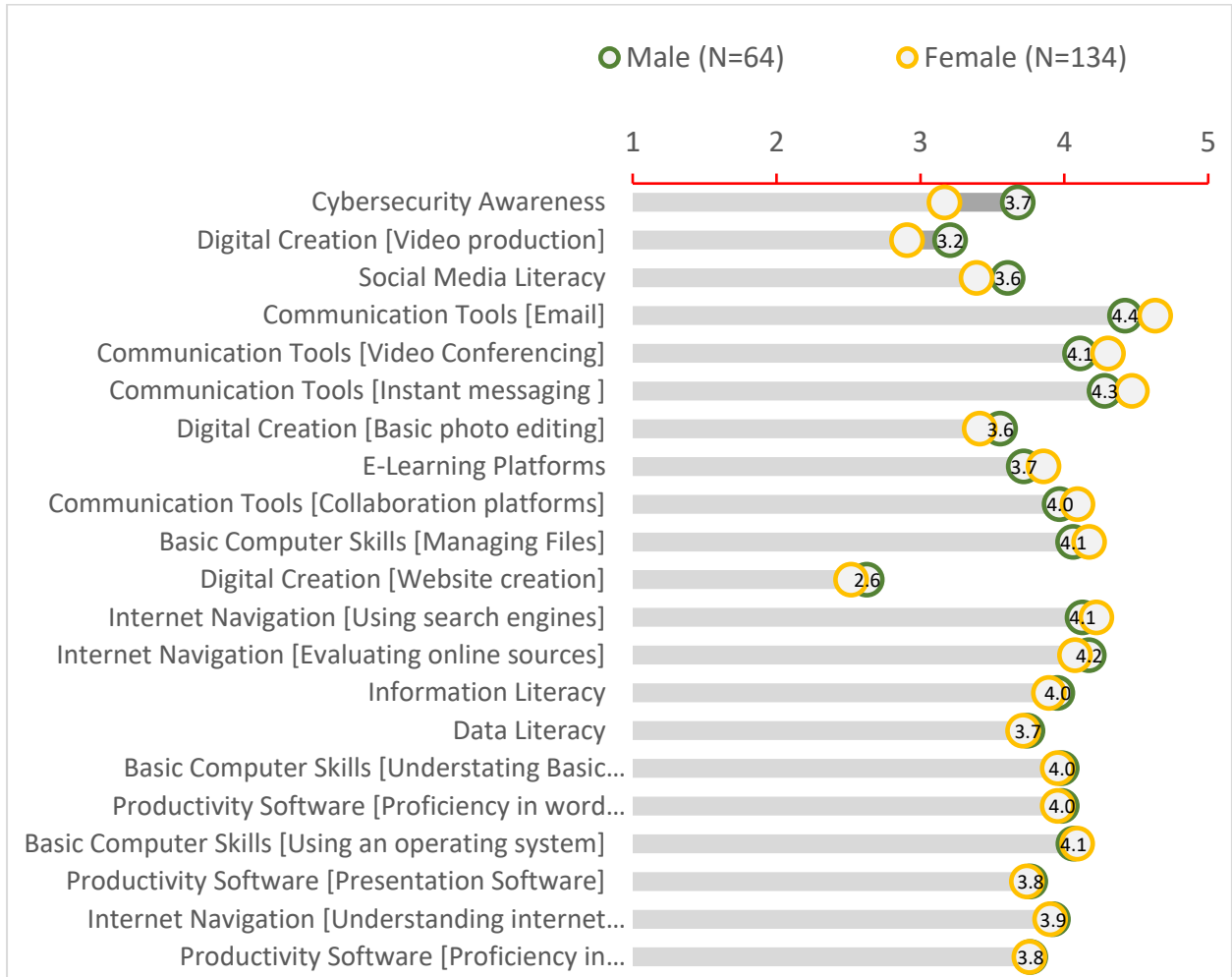
Results show that Lecturers at the University of Montenegro declare to have a lower level of knowledge on most of the Digital Skills mentioned in the questionnaire. Lecturers of the Mediterranean University of Albania and University of Shkodra “Luigj Gurakuqi”, declare to have a higher level of knowledge of Digital Skills, compared to the other 2 universities that are part of this study.

Figure 34: Lecturers - Level of knowledge on Digital Literacies by University



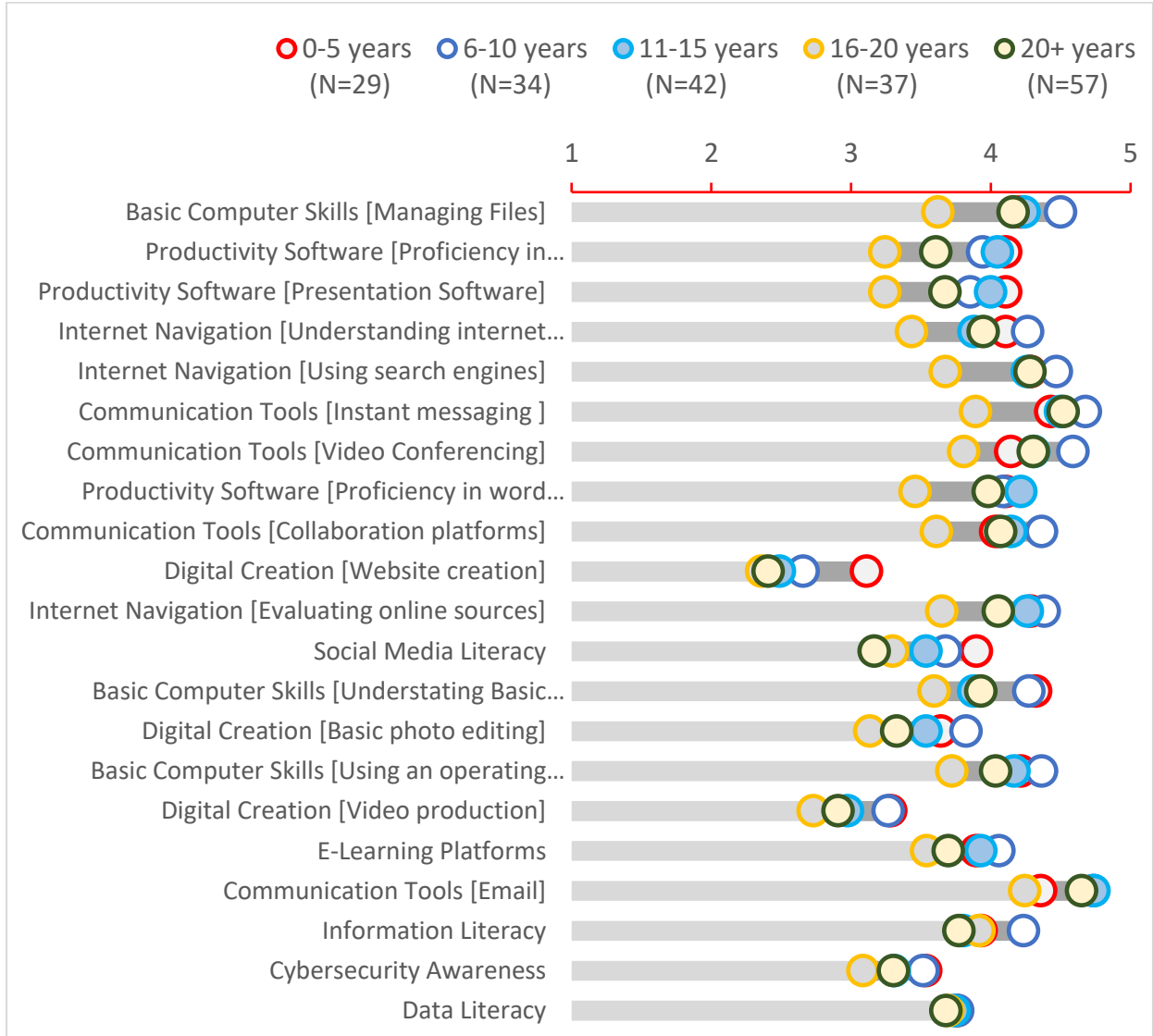
Results of the Level of knowledge self-declared by lecturers show that males tend to have a higher level compared to females in Cybersecurity awareness, Video Production, and Social Media Literacy. Other differences are not significant.

Figure 35: Lecturers - Level of knowledge on Digital Literacies by gender



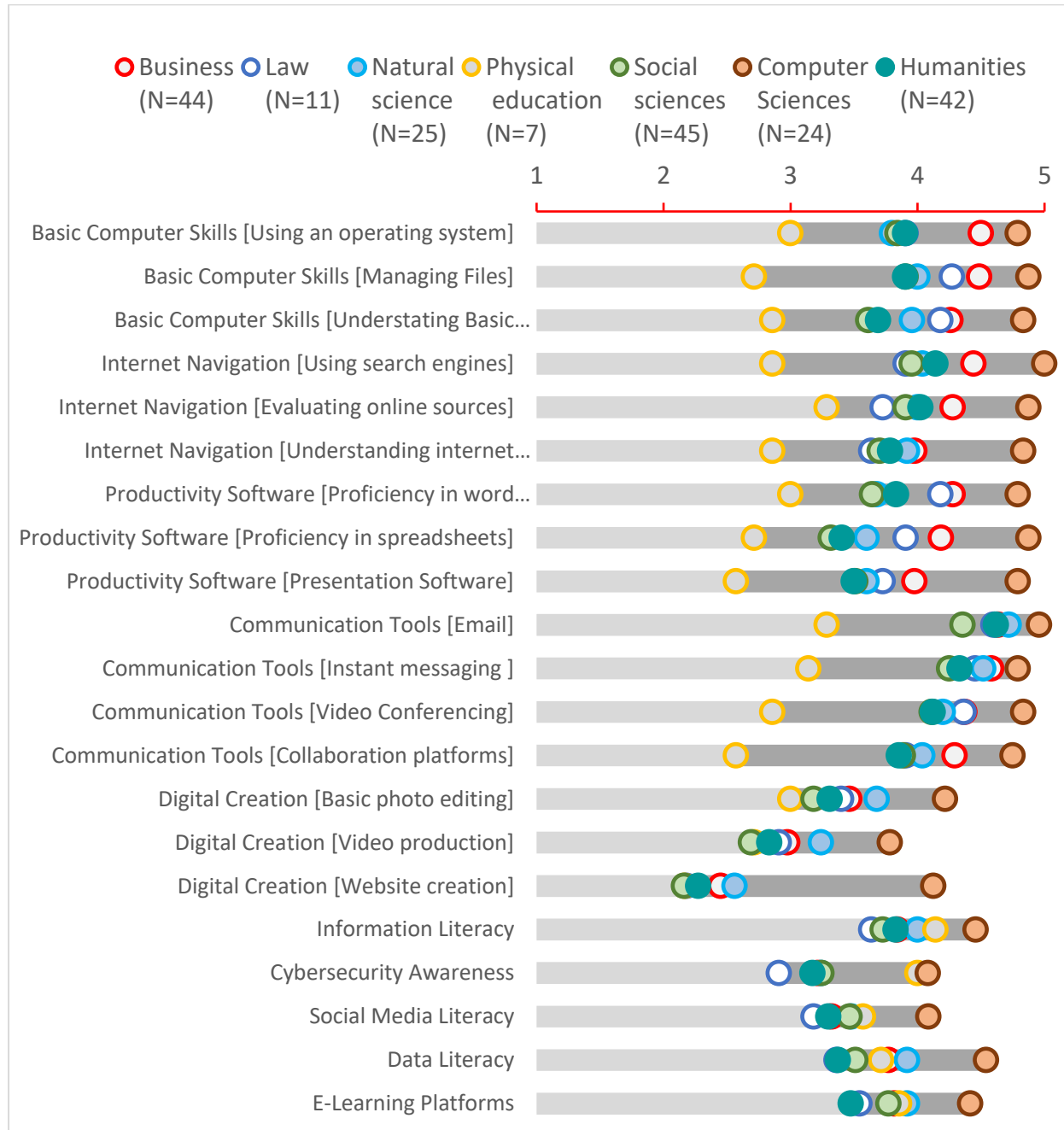
Results show that lecturers who have more years of experience tend to have a lower level of knowledge compared to others with less experience.

Figure 36: Lecturers - Level of knowledge on Digital Literacies by experience



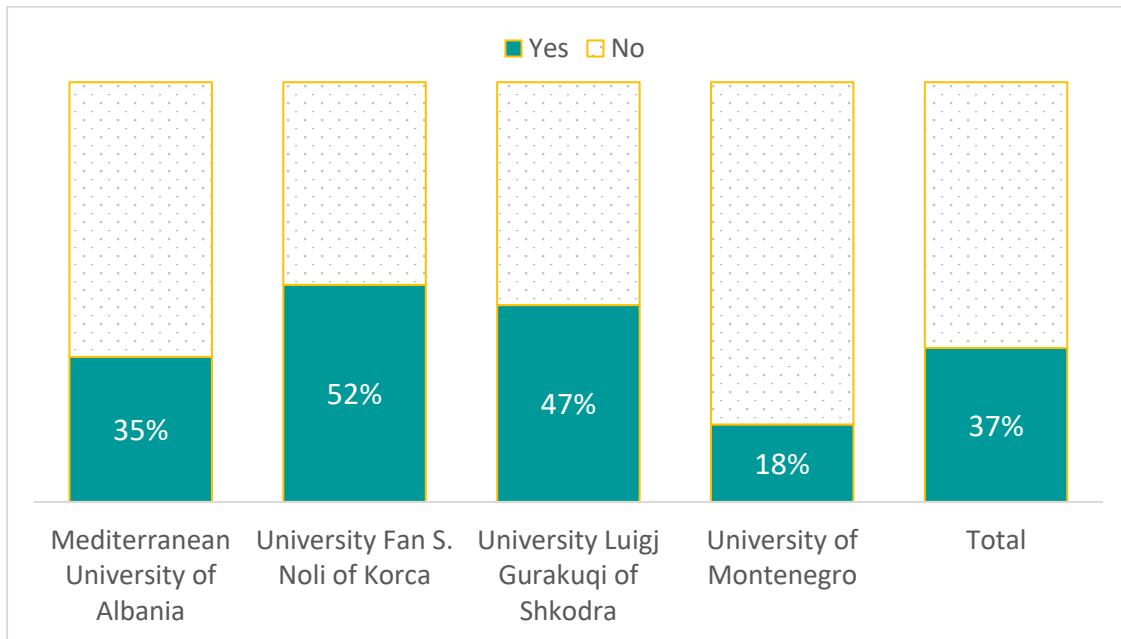
As expected Lecturers who have expertise in Computer Sciences, tend to have a higher level of knowledge regarding Digital Literacies. Next with a higher level of knowledge are professors with expertise in Business. The lowest level of knowledge is self-declared by lectures with a profile in Physical Education (results are only indicative and not significantly important).

Figure 37: Lecturers - Level of knowledge on Digital Literacies by discipline of expertise



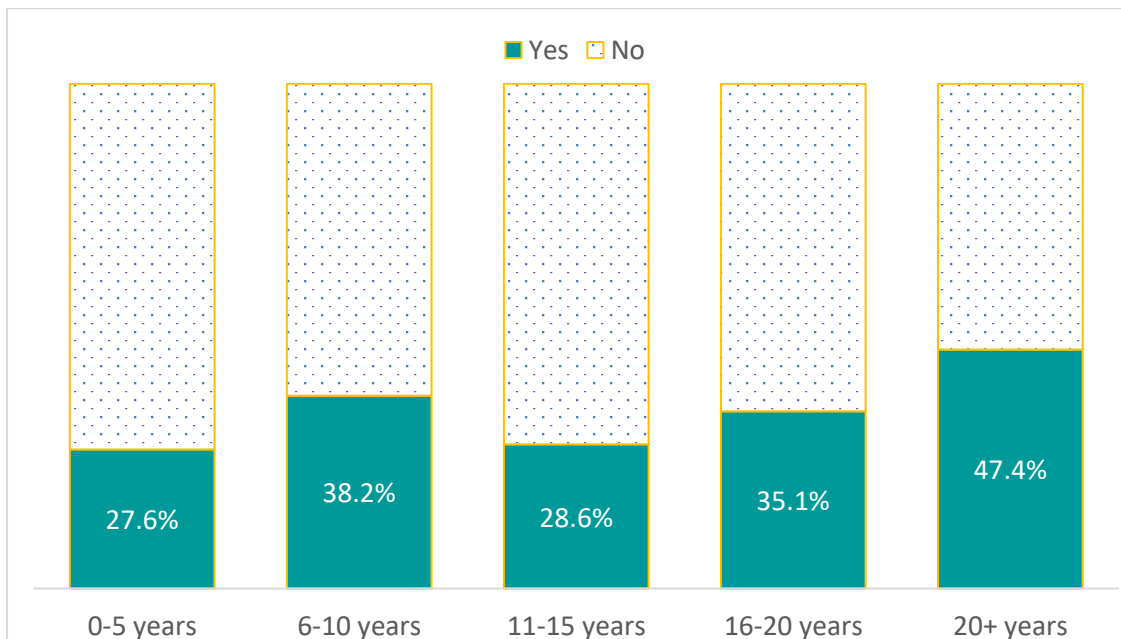
In total four universities, 37% of the lecturers have participated in at least one training session related to Digital Literacies in the past years. If we check the participation by the university, it shows that more lecturers who work at the University of Korça “Fan S. Noli” (52%) and the University of Shkodra “Luigj Gurakuqi”, (47%) have participated in training related to Digital Literacies, compared to Lecturers who work at the Mediterranean University of Albania (35%) and University of Montenegro (18%).

Figure 38: Lecturers - Participation in training sessions related to Digital Literacies



Results show that more lecturers with more years of experience have participated in Digital Literacies training compared to lecturers with less years of experience in the past years.

Figure 39: Lecturers - Participation in Digital Literacies trainings sessions related to their experience

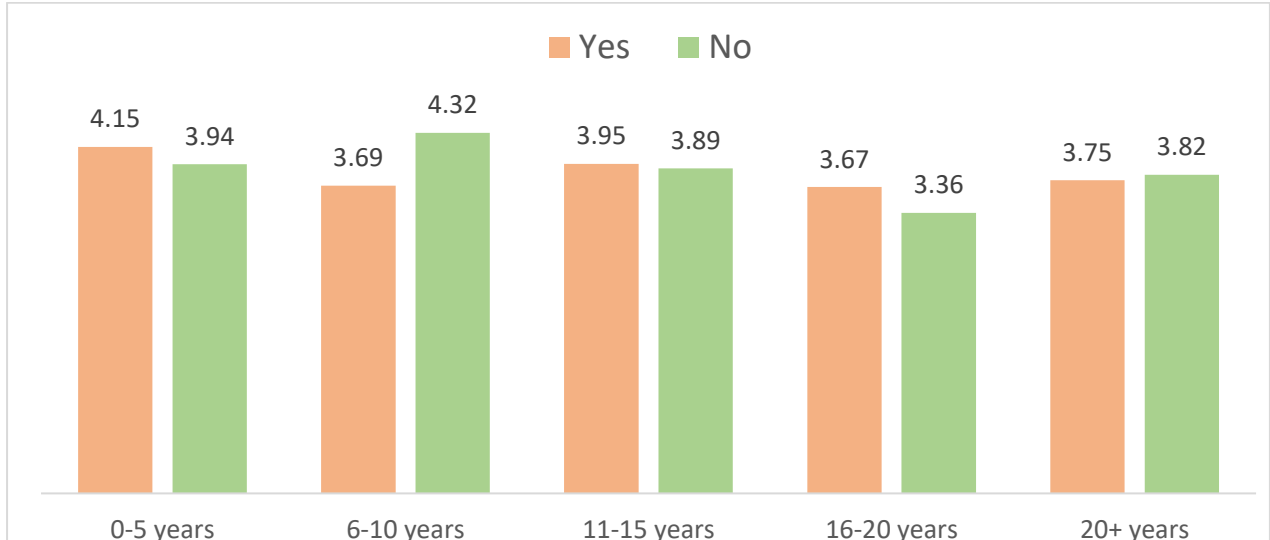


The findings indicate that lecturers with 0-5 years and 11-20 years of teaching experience, who have engaged in at least one training session in recent years, exhibit a higher level of proficiency in Digital Literacies. Conversely, the reverse pattern is observed for professors with 6-10 years and over 20 years of experience. Lecturers who have undergone training express a lower level of proficiency in Digital Literacies compared to their counterparts who have not participated in training sessions.

Several factors may contribute to this observation. It is plausible that professors who perceived a greater need for skill enhancement actively sought out training opportunities, while those already

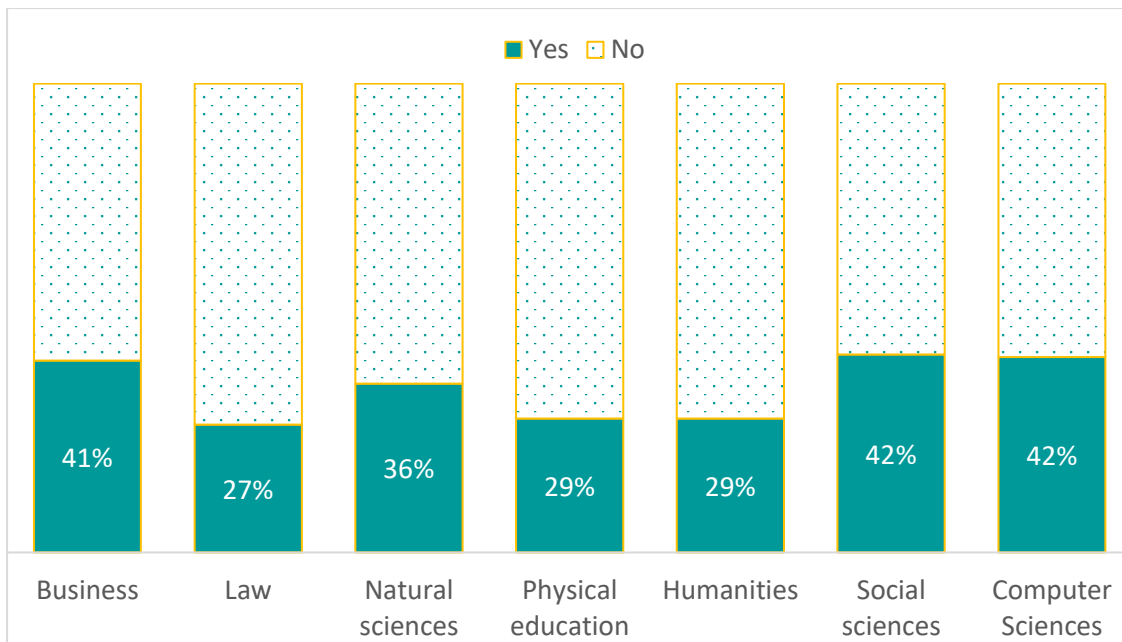
possessing a higher level of digital literacies knowledge may not have found the same imperative to engage in such sessions.

Figure 40: Digital Literacies Proficiency Among Lecturers by Training Participation and Teaching Experience



Results categorized by the profiles of lecturers reveal that individuals with backgrounds in Business, Social Sciences, and Computer Sciences have demonstrated a higher rate of participation in Digital Literacies training sessions compared to their counterparts in other disciplines.

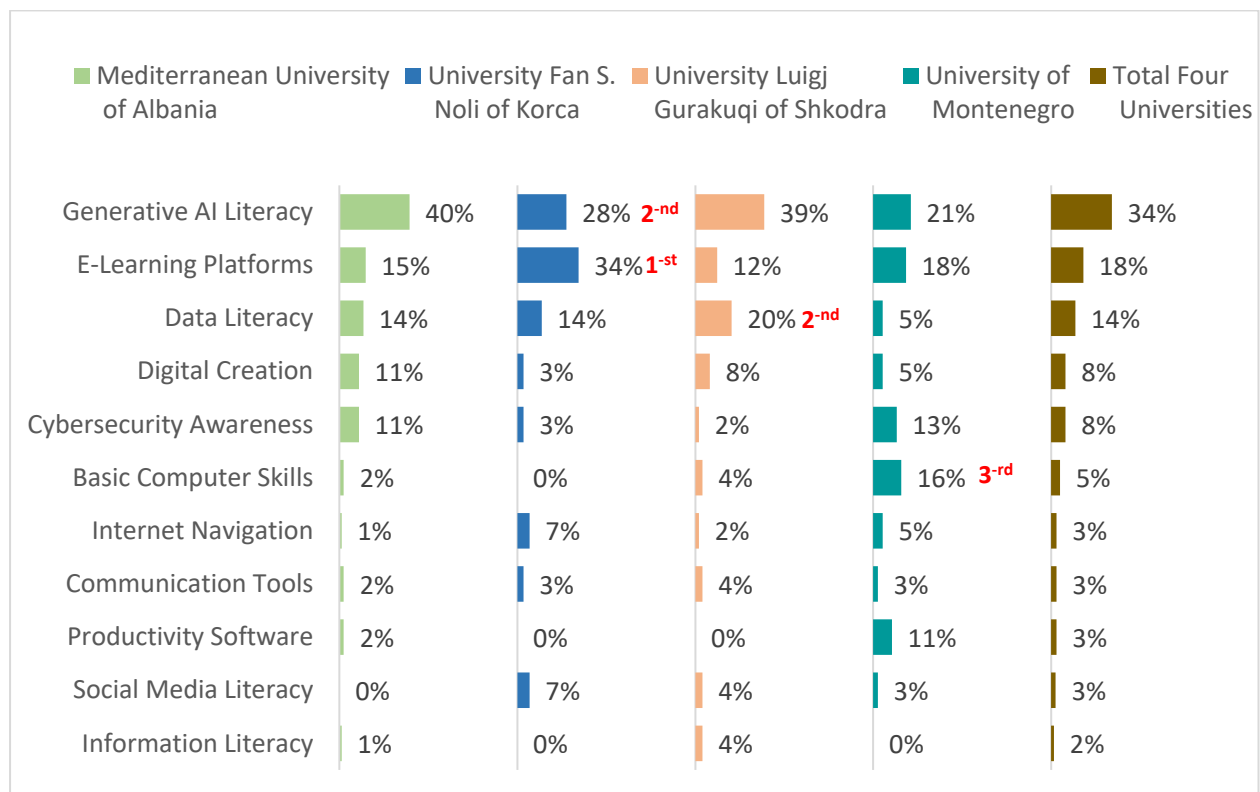
Figure 41: Lecturers - Participation in Digital Literacies training sessions related to discipline of expertise



Preferred Digital Literacies Skills to be improved

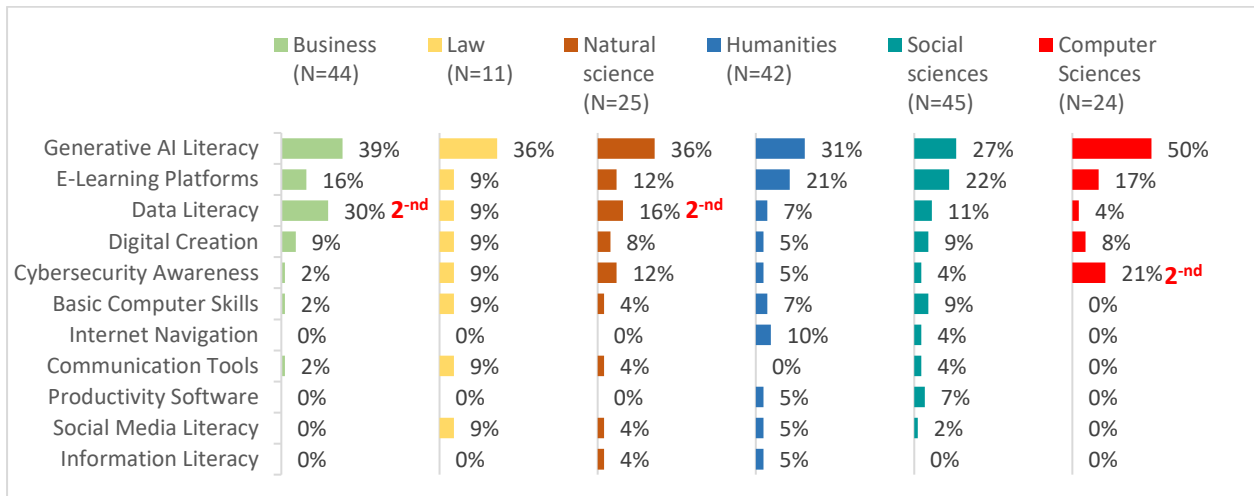
There are some differences in the preferences of what lecturers of different universities want to improve. Generative AI Literacy is the most preferred training by 34% of all lecturer respondents of three out of four universities. Exception is the University of Korça “Fan S. Noli” which lecturers prefer the most to improve their skills in E-Learning Platforms by 34% , compared to only 18% of lecturers of the University of Montenegro, 15% of those in the Mediterranean University of Albania, and 12% of University of Shkodra “Luigj Gurakuqi”. A large difference is shown in the preference for basic computer skills, where 16% of lecturers at the University of Montenegro are interested the most in improving them, compared to only 4% of those at the University of Shkodra “Luigj Gurakuqi”, 2% at the Mediterranean University of Albania, and 0% of those at the University of Korça “Fan S. Noli”.

Figure 42: Lecturers - Skills that Lecturers are most interested in improving, by University



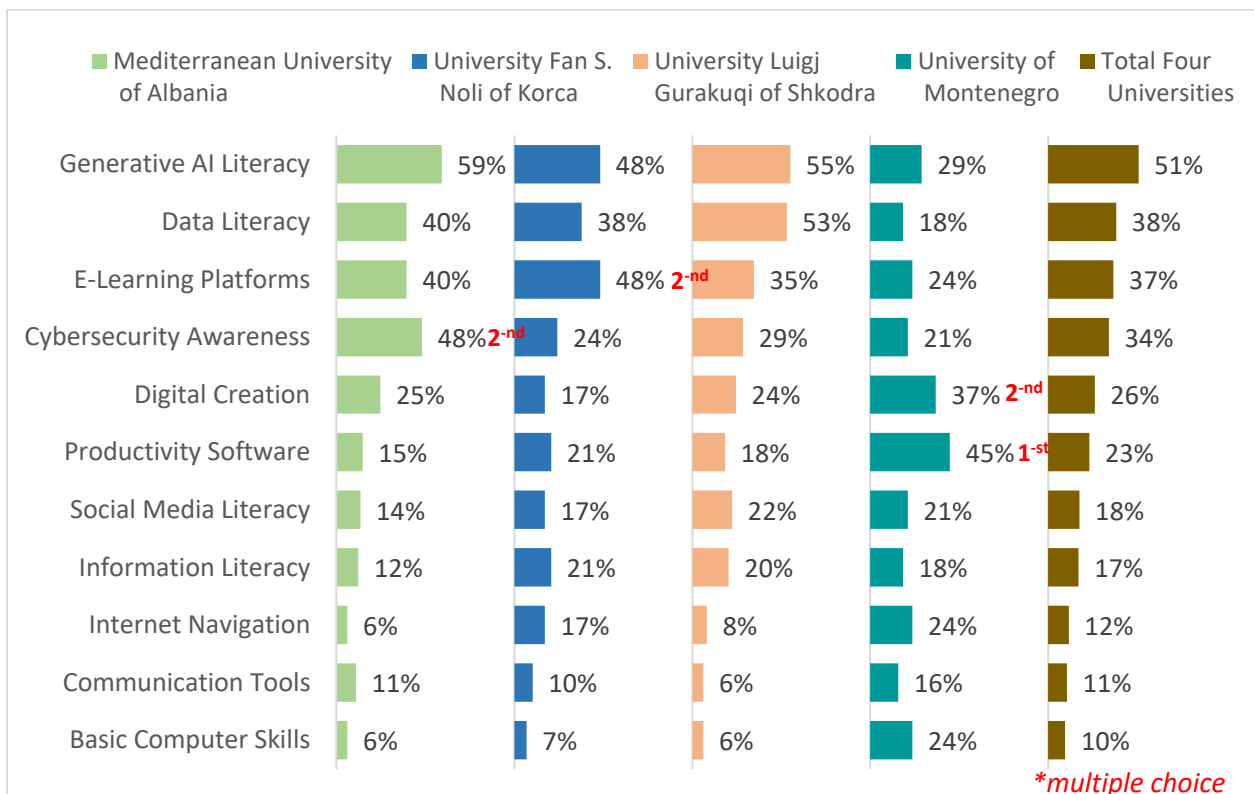
All the lecturers regardless of their profile of expertise are most interested in improving Generative AI Literacy, but there are some significant differences (50% of Lecturers of Computer Sciences, 39% of Business, 36% of Law and Natural Science, 31% of Humanities and 27% of Social Sciences). Lecturers of Computer Science are second most interested in improving Cybersecurity Awareness (21%).

Figure 43: Lecturers - Skills that Lecturers are most interested in improving, by discipline of expertise



When professors were asked to choose more than one skill they are interested in improving, half (51%) chose Generative AI Literacy, 38% Data Literacy, 37% E-Learning Platforms, and so on. Lectors at the University of Montenegro are more interested in improving Productivity Software (45% of respondents), and Digital creation (37% of respondents). Also, lectors of the Mediterranean University of Albania (48%) are interested in improving Cybersecurity Awareness, compared to less than 30% of other professors in other universities.

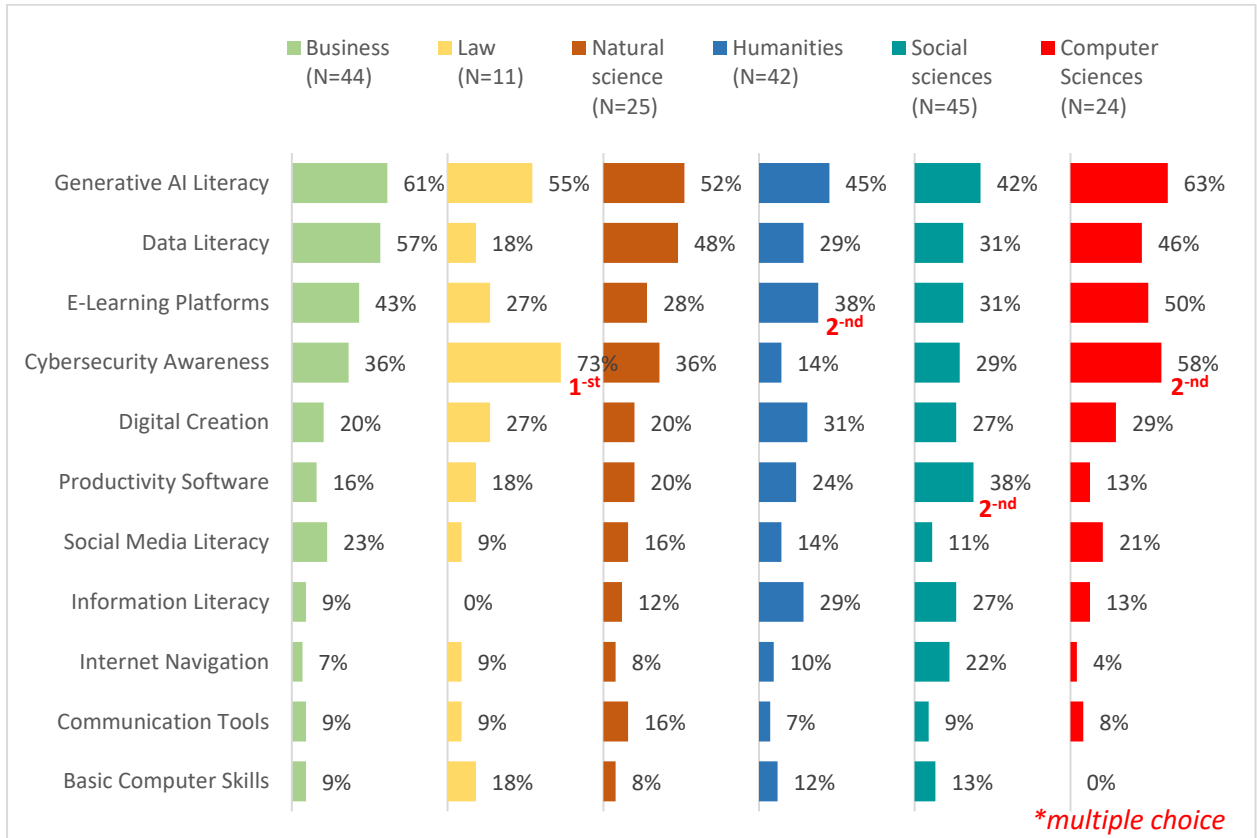
Figure 44: Lecturers - Skills that Lecturers are interested in improving, by University



Lecturers of all the fields listed below are the most interested in improving Generative AI Literacy, compared to other Digital Literacies skills. Different from the lecturers of other fields, those of Social Science chose as the second most preferred skill they want to improve the Productivity Software (38%).

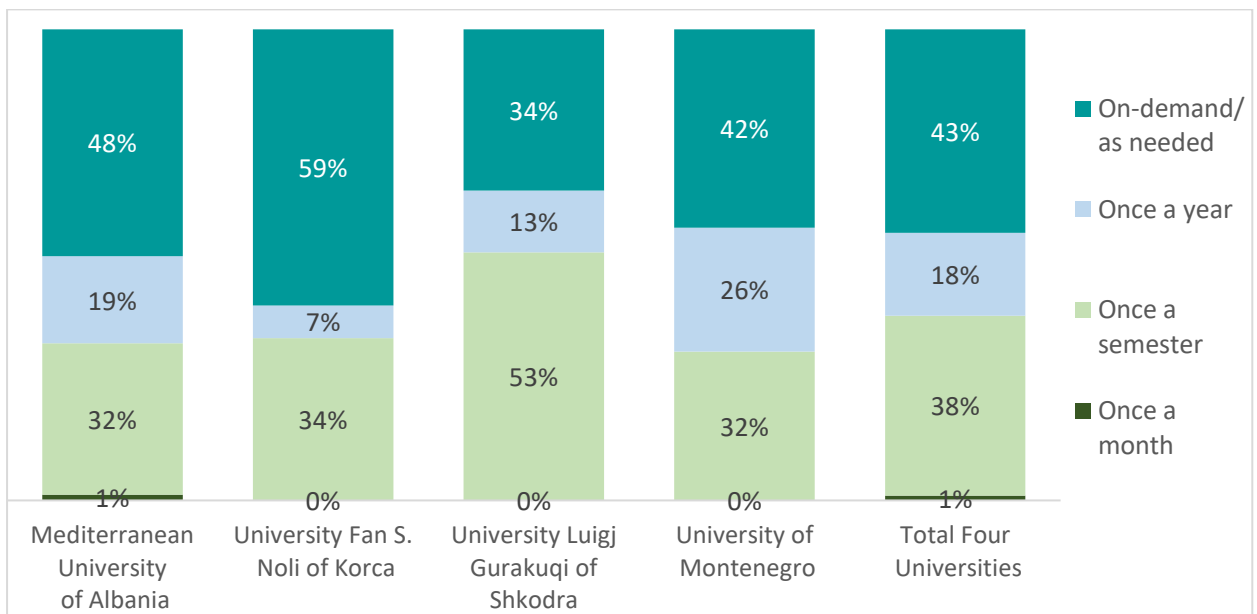
On the other hand the second most interested skill to be improved for professors of Computer Science is Cybersecurity Awareness (58%).

Figure 45: Lecturers - Skills that Lecturers are interested in improving, by digital of expertise



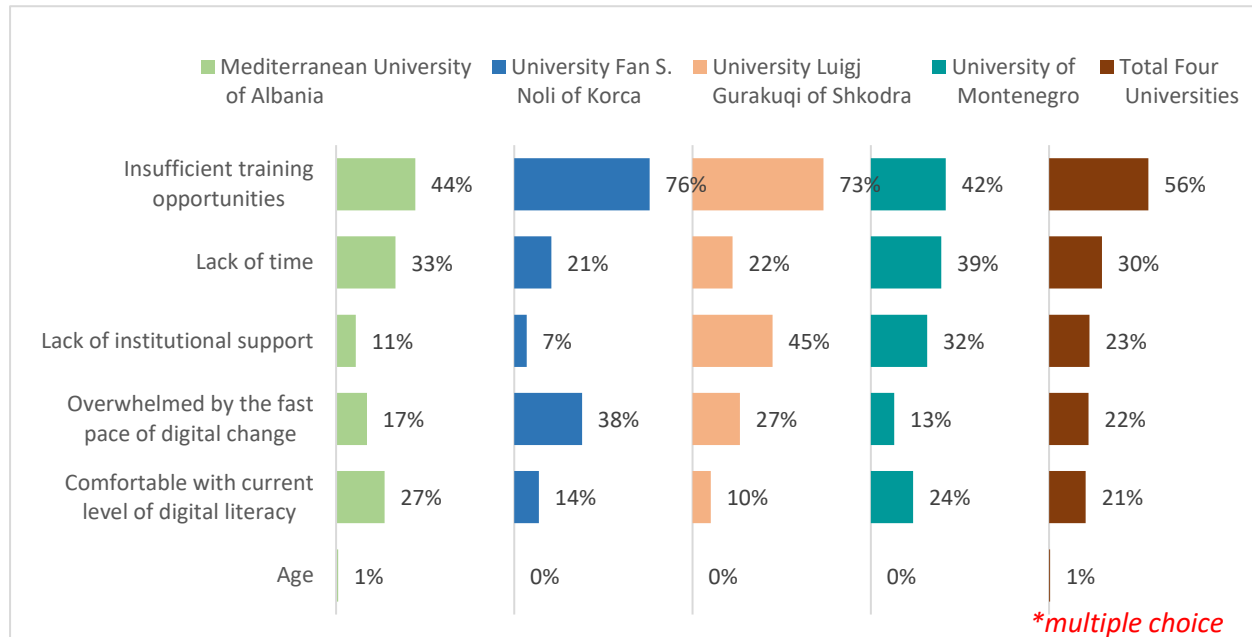
In total four universities 43% of Lecturers want session training to be on demand/ as needed, 18% once a year, 38% once a semester, and only 1% once a month.

Figure 46: Lecturers - Frequency of desired training by University



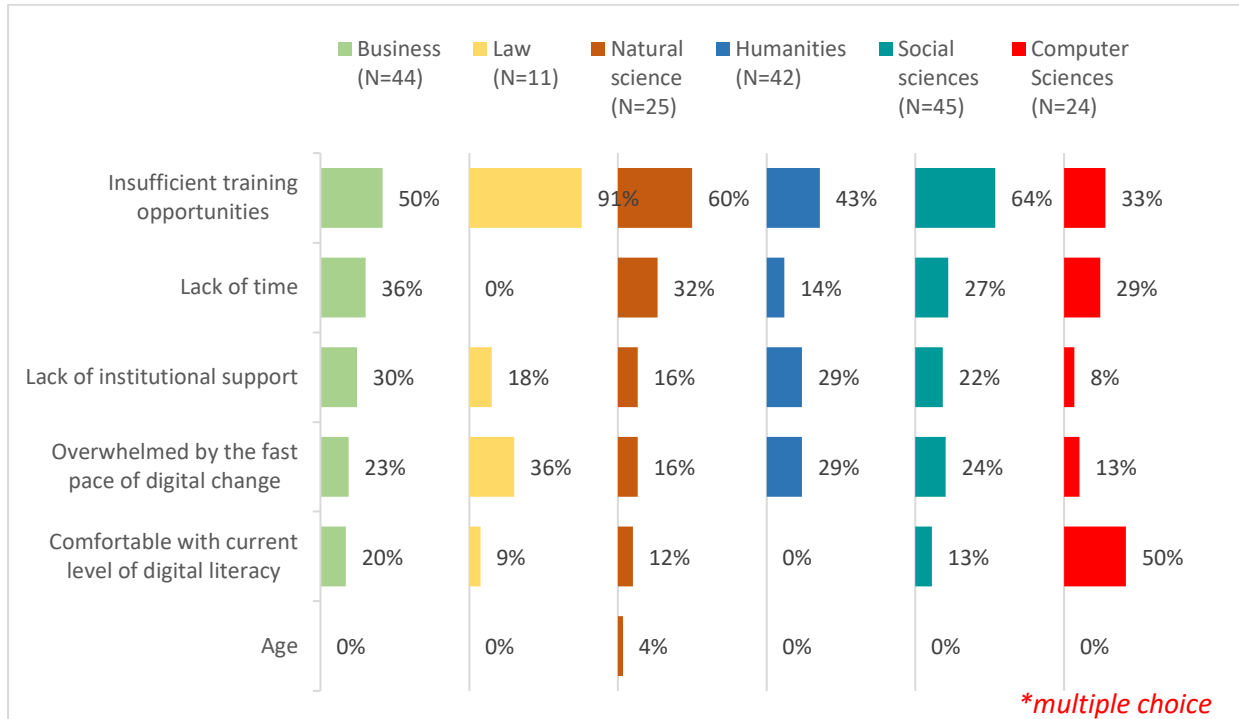
More than half of the lecturers from the four universities (56%) say that Insufficient training opportunities are one of the main barriers to attending training sessions. This differs from one university to another (44% of lecturers from the Mediterranean University of Albania think so, compared to 76% of the University of Korça “Fan S. Noli”, 73% University of Shkodra “Luigj Gurakuqi”, and 42% of the University of Montenegro). Lack of time is the second most important barrier that prevents lecturers from attending training sessions. About 45% of the lecturers at the University of Shkodra “Luigj Gurakuqi”, think that Lack of Institutional support is one of the main barriers to attending training sessions. Also, interesting is that 38% of the lecturers at the University of Korça “Fan S. Noli”, see it as one of the barriers to the fast pace of digital change.

Figure 47: Lecturers - Barriers to attending training sessions by University



The interesting results by the discipline of expertise of lecturers are that 50% of the professors with Computers Science profile are comfortable with their current level of Digital Literacies, compared to less than 20% for professors of other disciplines. Results for Low are not significant due to the low number of responses.

Figure 48: Lecturers - Barriers to attending training sessions by discipline of expertise

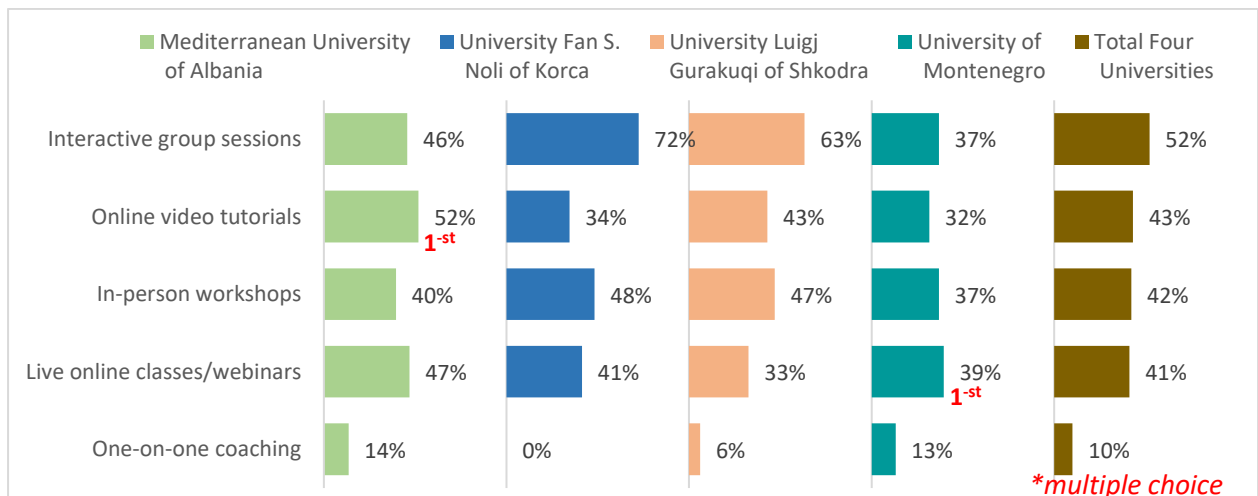


Favorite training methods

The preferred method for Digital Literacies trainings for all professor respondents is through Interactive group sessions by 52% in average, and in more details University of Korça “Fan S. Noli”, (72%), University of Shkodra “Luigj Gurakuqi” (63%), Mediterranean University of Albania (46%), and University of Montenegro (37%).

Yet the Online Video Tutorial method is the first choice for Mediterranean University of Albania by 52%, while Live Online Classes/Webinar is the number one method of training for the lecturers of the University of Montenegro by 39%.

Figure 49: Lecturers - Preferred formats of Digital Literacies Training by University





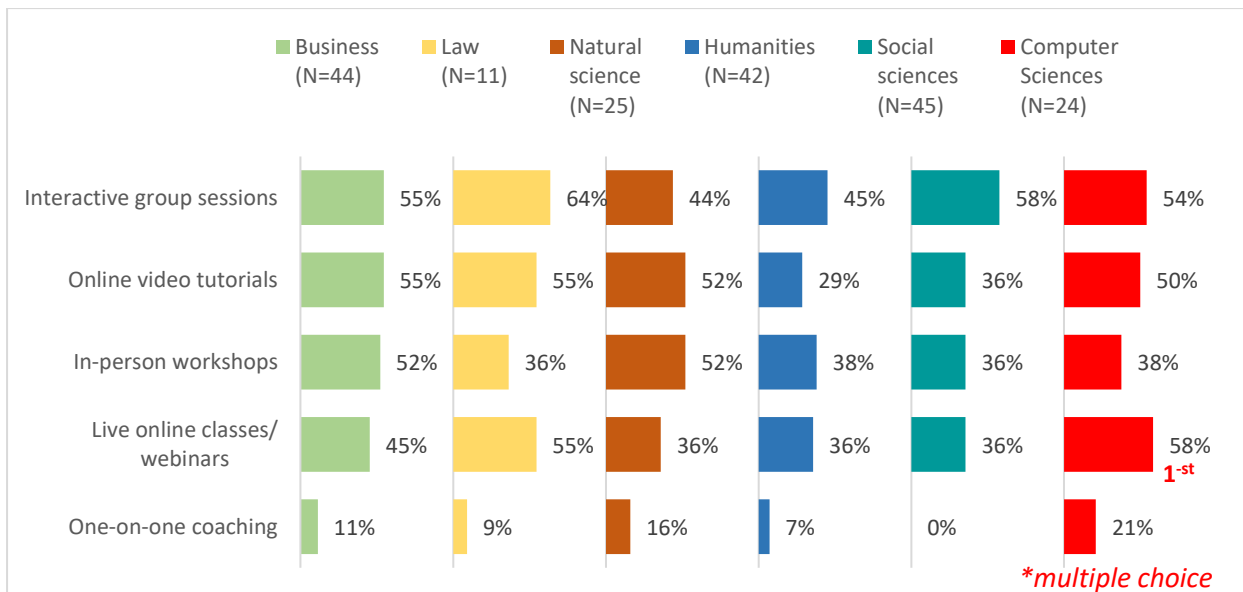
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Focus Group: The focus group results echo the quantitative data regarding lecturers' preferences for Digital Literacies training formats. The trend is towards favoring face-to-face sessions, with many lecturers highlighting the benefits of interactive, engaging, and focused learning environments that these sessions provide. On the other hand, a significant number of professors see value in a hybrid approach, combining the personal touch of face-to-face training with the convenience and accessibility of online modules. This preference for in-person training is particularly pronounced among lecturers at the University of Korça “Fan S. Noli”, mirroring the quantitative findings. This preference underscores a broader trend in digital literacies education, where the perceived effectiveness of personal interaction and engagement in learning environments is highly valued.

Regarding quantitative analyses, Interactive group sessions are the preferred format of Digital Literacies training for professors with expertise in Business (55%), Law (64%), Humanities (45%), and Social Sciences (58%).

About half of the lecturers with expertise in Natural Sciences prefer Online Video Tutorials (52%) and In-Person workshops (52%). Also, Live online classes/webinars are the preferred format of training for Computer Sciences professors (58%).

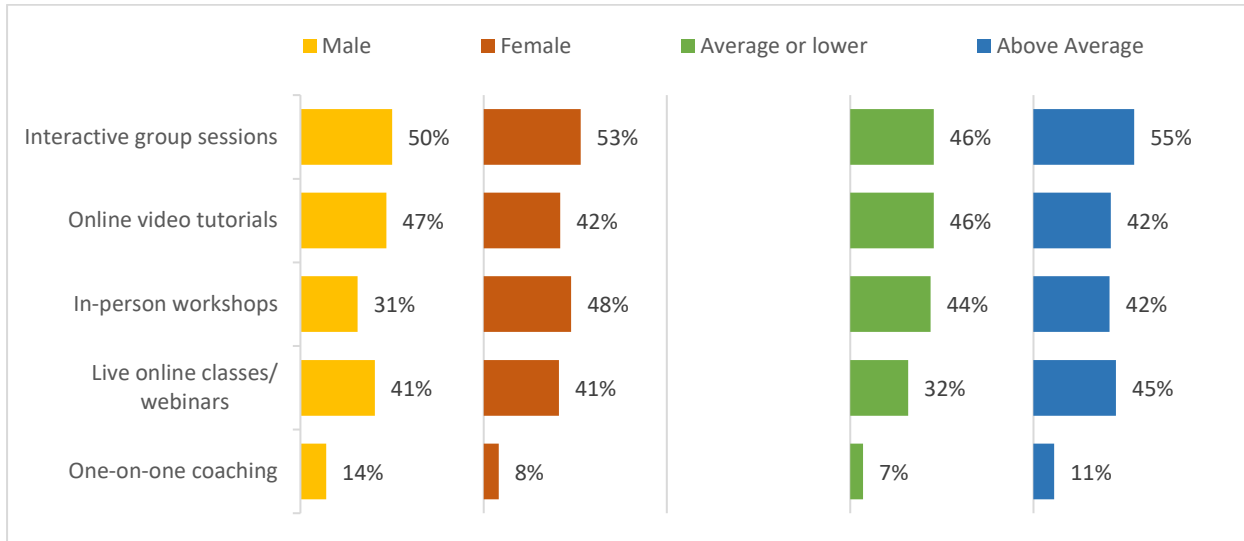
Figure 50: Lecturers - Preferred formats of Digital Literacies training by discipline of expertise



In-Person workshops are preferred by 48% of females and only 31% of males. Also, the difference is shown in preference for Interactive group sessions and Live online classes/webinars regarding the Digital Literacies knowledge level.



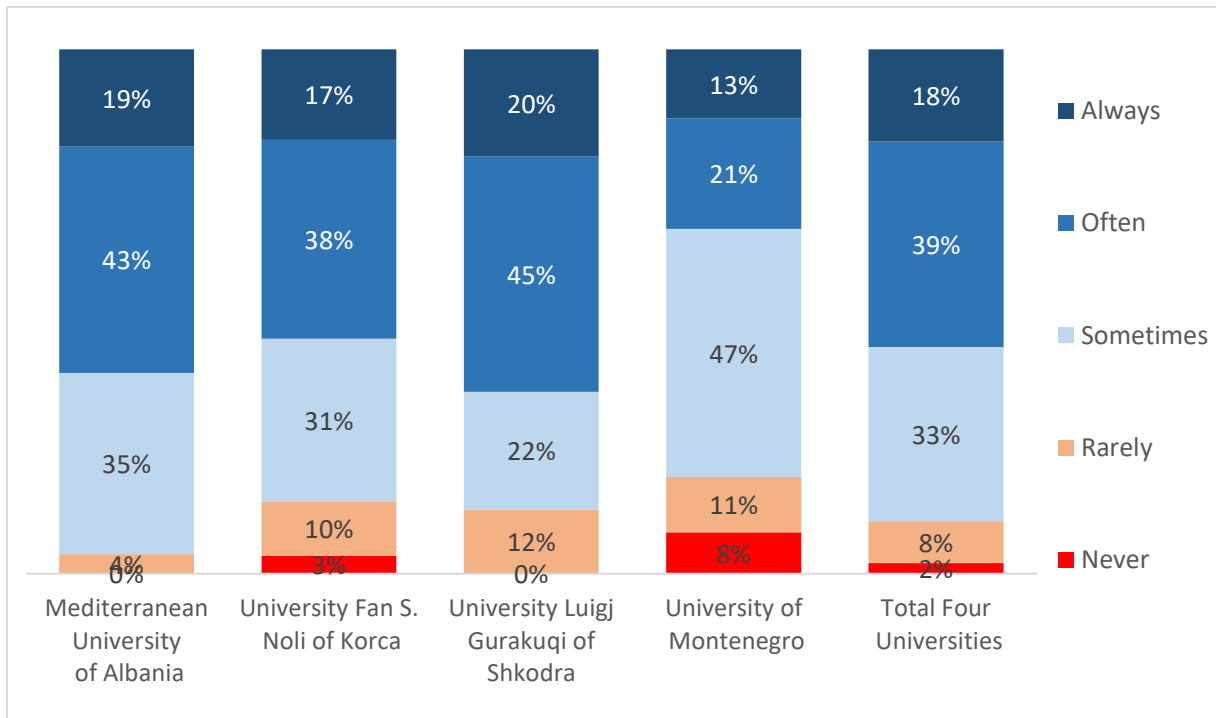
Figure 51: Lecturers - Preferred formats of Digital Literacies training by gender and by Digital Literacies knowledge



Usage of Digital Tools

When Lecturers were asked how often they use digital tools in their teaching, 18% declared to always use them and 39% often use them, 33% use them rarely, but only 2% of the lecturers never used digital tools in their teaching. Lecturers at the University of Montenegro tend to use a lower frequency the digital tools during their teaching, compared to professors at three other universities.

Figure 52: Lecturers - Digital tools usage during their teaching per University



Focus Group:

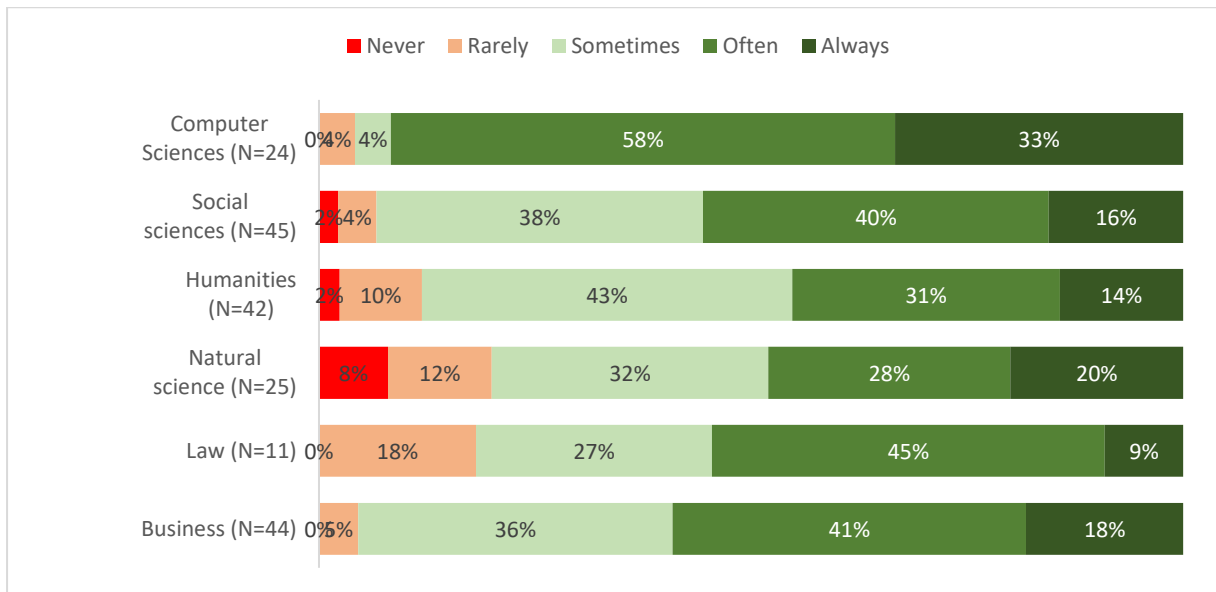
The discussions during the focus groups reveal that the Covid-19 pandemic in 2020 was a pivotal moment for many lecturers in terms of familiarizing themselves with digital tools. They heavily relied on online educational platforms like Microsoft Teams and Moodle during this period. However, their current usage of these tools is mostly limited to sharing teaching materials, and it is not a consistent practice.

A significant challenge identified is the need for both professors and students to have similar proficiency levels in these digital tools. Issues such as outdated classroom computers and limited WiFi access, often restricted to lecturers, further complicate this scenario.

At University of Montenegro, lecturers have shown an increased proficiency in online tools like Microsoft Teams, Zoom, Blue Button, and Moodle, albeit still preferring traditional teaching methods. In contrast, lecturers in Albania frequently use platforms such as Microsoft Teams, Google Meet, and Google Classroom, with Moodle being less commonly utilized, particularly at the University of Korça “Fan S. Noli”. This variation indicates differing levels of adaptation and preference for digital tools in the educational settings of Montenegro and Albania.

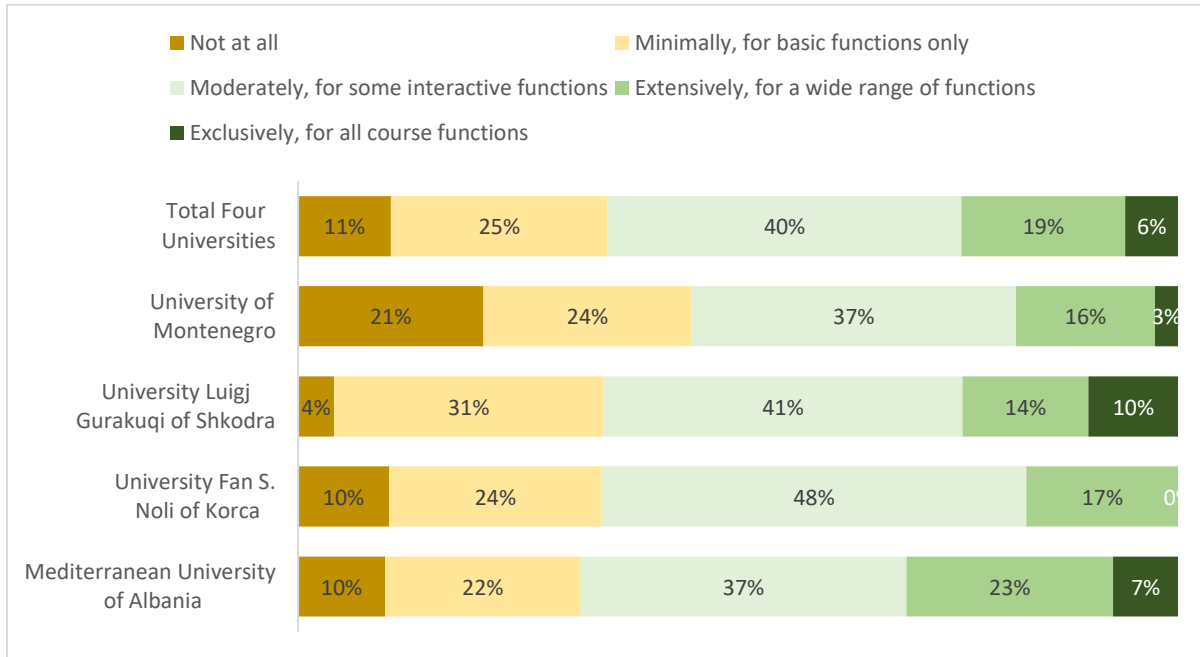
Regarding quantitative analyses, Lecturers in the field of Computer Science are those who use it more often the digital tool during their teaching. On the other hand, professors of Humanities use less often the digital tools during their teaching. Results for Law are only indicative and not statistically significant.

Figure 53: Lecturers - Usage of Digital Tools by professors during their teaching, by discipline of expertise



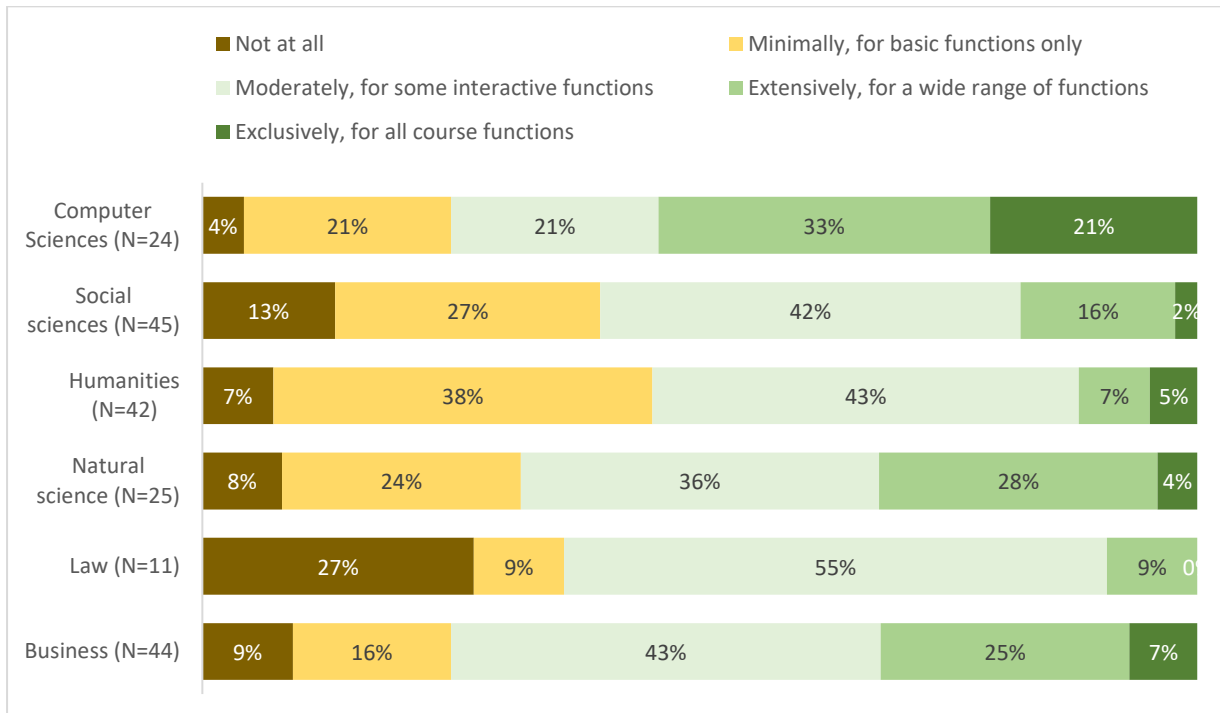
Lecturers were asked to what extent they integrate learning management systems in their courses. About 11% declared that they never integrated them. Disaggregation by university shows that 21% of lecturers at the University of Montenegro do not integrate at all the learning management systems. About 10% of the lecturers at the University of Shkodra “Luigj Gurakuqi” use Learning Management Systems exclusively, for all the course functions.

Figure 54: Lecturers - Learning Management Systems usage per University



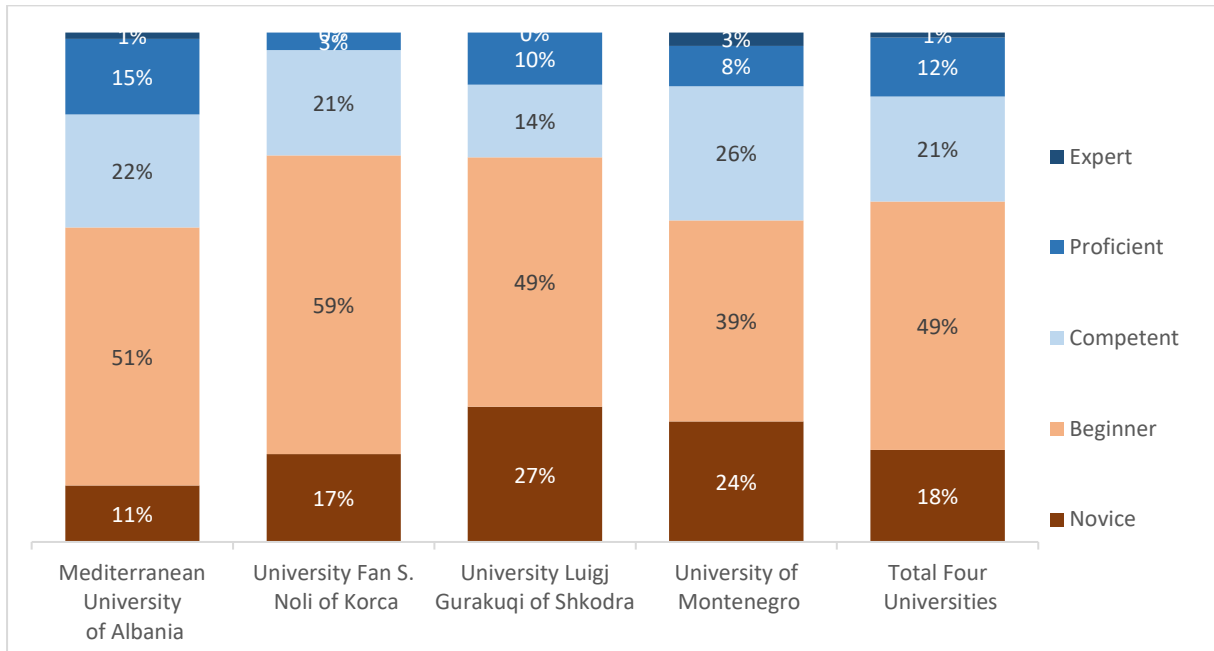
Lecturers with expertise in Computer Science tend to use more in their courses the Learning Management Systems, compared to professors of other fields.

Figure 55: Lecturers - Learning Management Systems usage per expertise



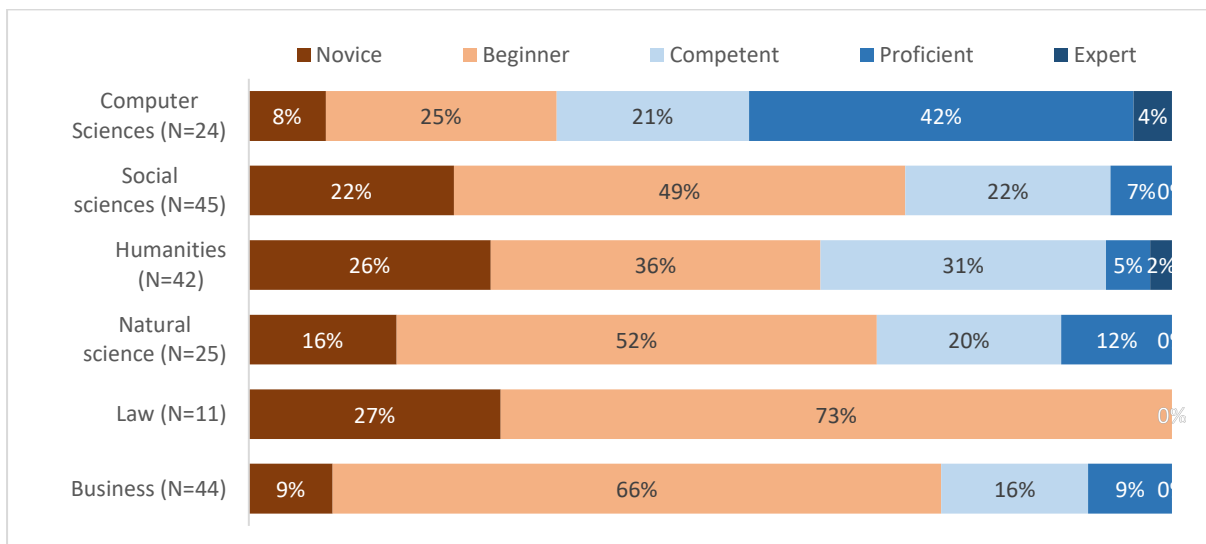
Results show that in using AI and machine learning tools, only 1% of lecturers consider themselves as “Experts”, 12% as “Proficient”, and 21% as “Competent”. On the other hand, 65% consider themselves as “Beginner” or “Novice”. Lecturers of the Mediterranean University of Albania consider themselves more proficient compared to professors of other universities.

Figure 56: Lecturers - Proficiency in usage of AI and machine learning tools, by the University



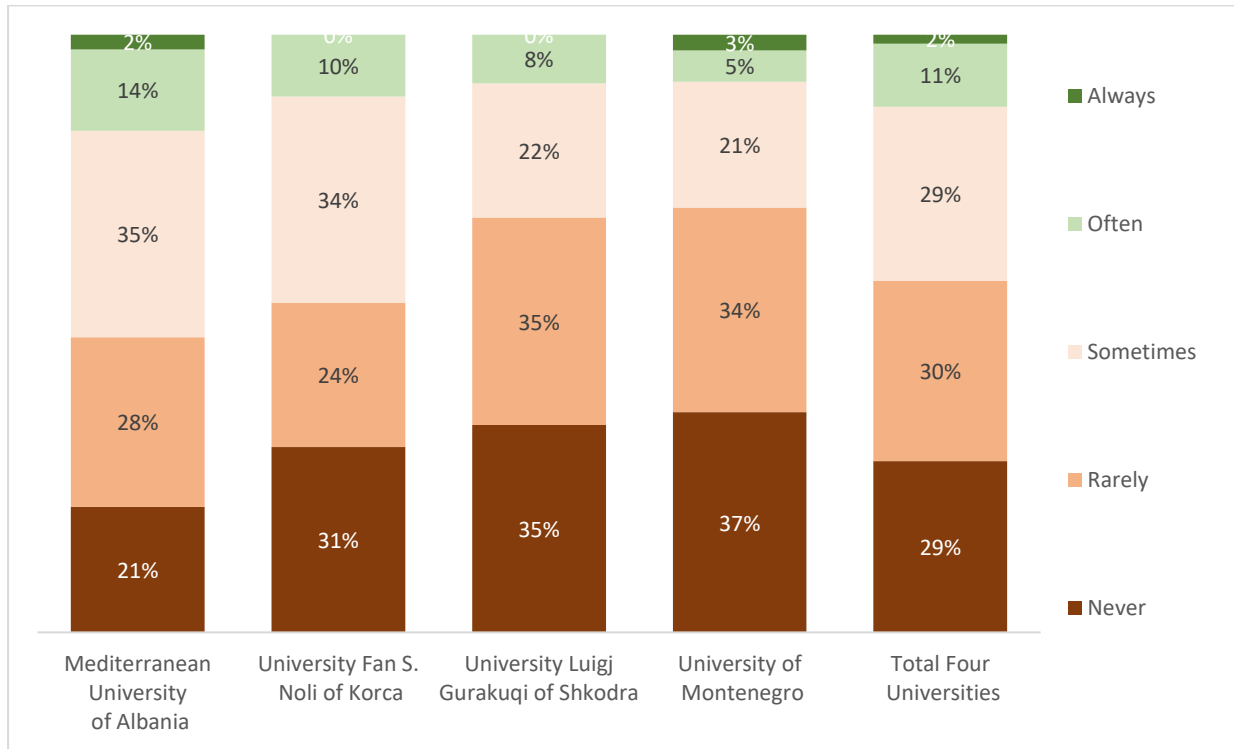
As expected, results show that lecturers of Computer Science are more proficient in the usage of AI and machine learning tools compared to professors of other disciplines. About 46% of lecturers with expertise in Computer Science consider themselves proficient in the usage of AI and machine learning tools (4% as experts and 42% as proficient), compared to less than 12% for professors of other disciplines.

Figure 57: Lecturers - Proficiency in the usage of AI and machine learning tools, by discipline of expertise



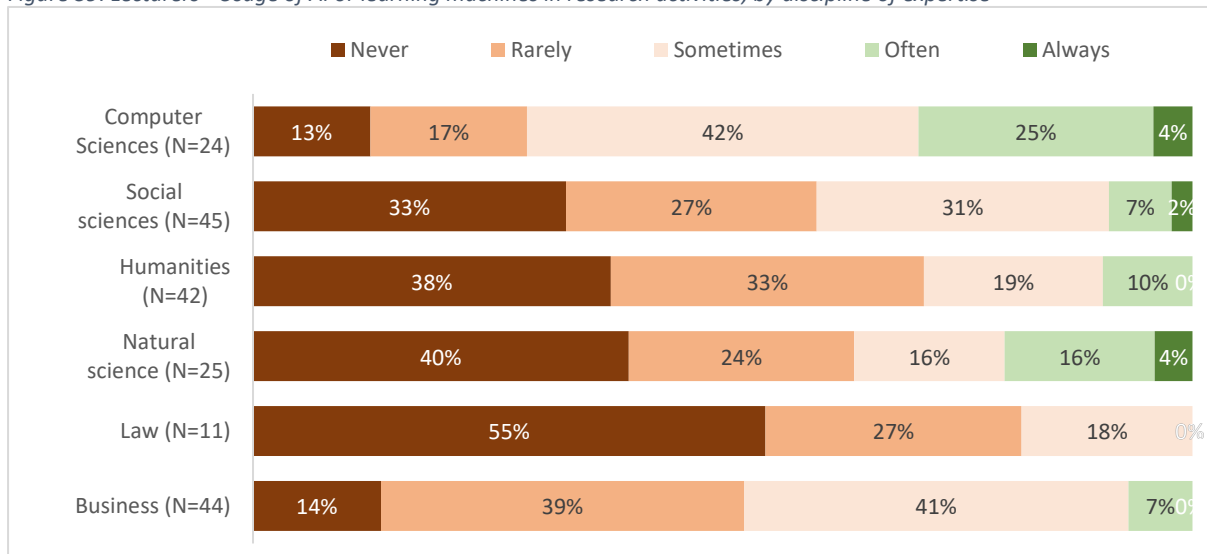
Only 2% of the lecturers always utilize AI or Learning machines in their research activities. The lowest usage of AI or learning machines in research activities is shown in the University of Montenegro (37% of lecturers never use them, compared to 35% at the University of Shkodra “Luigj Gurakuqi”, 31% at the University of Korça “Fan S. Noli”, and 21% at the Mediterranean University of Albania).

Figure 58: Lecturers - Usage of AI or learning machines in research activities, by University



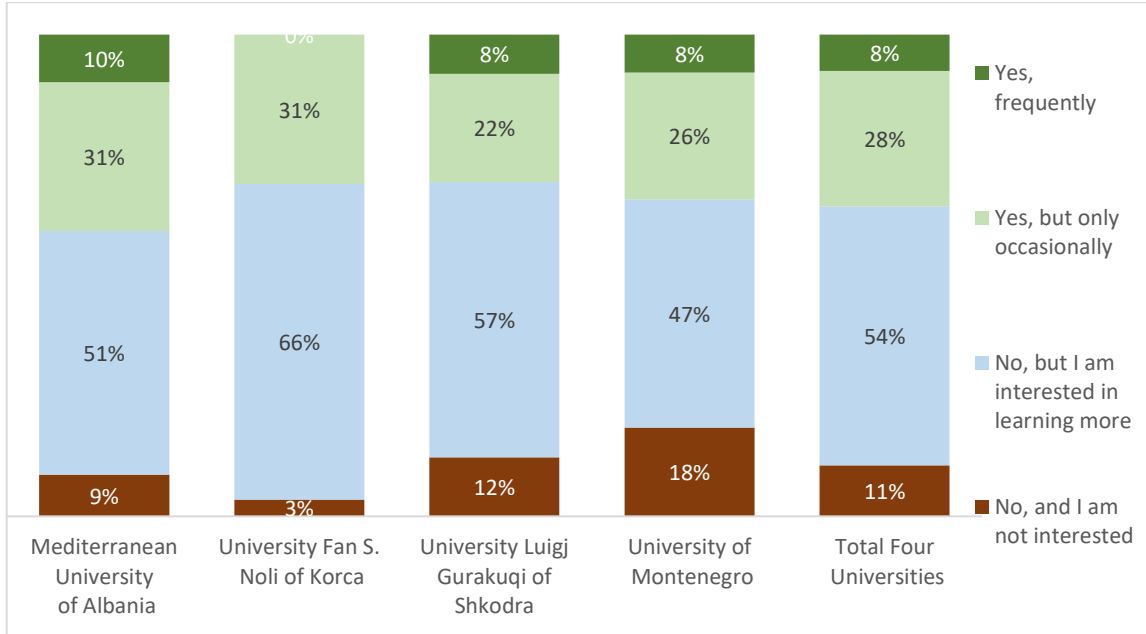
Lecturers of Computer Science use AI or learning machines in research activities at a higher frequency compared to lecturers of other disciplines. Next with a higher frequency of the use of AI or learning machines are professors of Natural Sciences. Results for Law are only indicative and not statistically significant.

Figure 59: Lecturers - Usage of AI or learning machines in research activities, by discipline of expertise



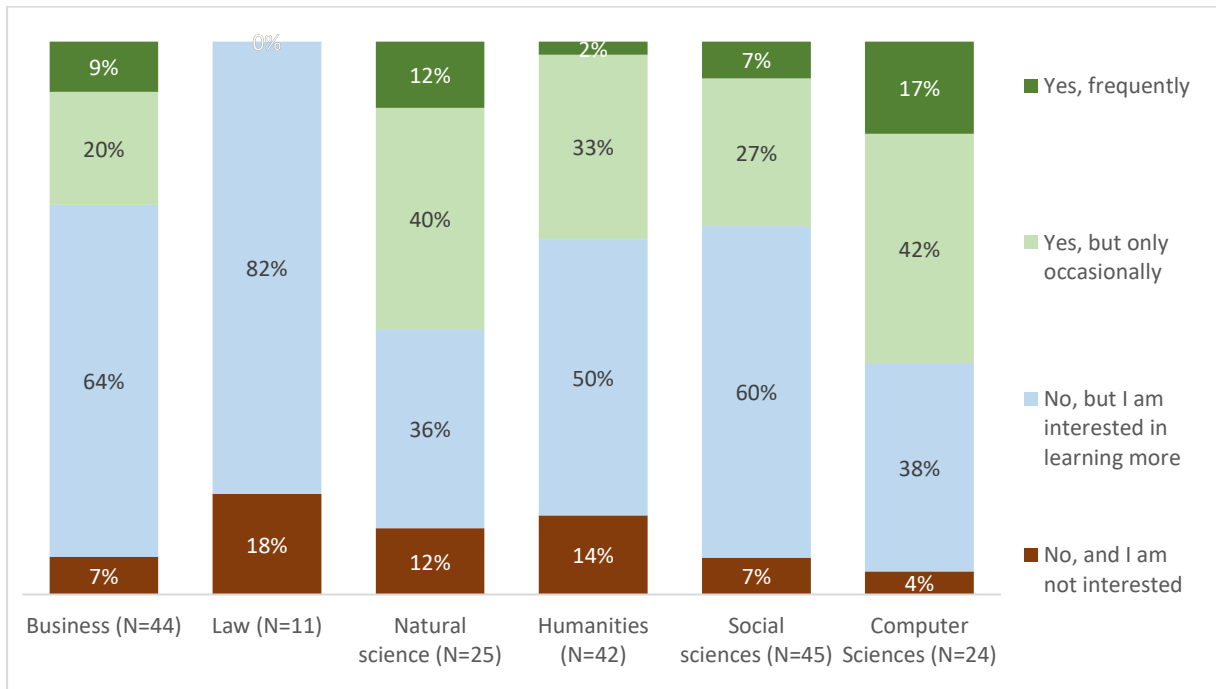
Results of the usage of AI-based tools for personalizing learning or student engagement show that only 6% of the lecturers have used them frequently and 28% occasionally. About 11% Have never used it and they are not interested in using in the future. On the other hand, more than half of the lecturers (54%) have not used them but they are interested in learning more. The lowest level of usage is shown at the University of Korça “Fan S. Noli”.

Figure 60: Lecturers - Usage of AI-based tools for personalizing learning or student engagement, by University



The highest frequency of the usage of AI-based tools for personalizing learning or student engagement is for the lecturers with expertise in Computer Science (17% use frequently). and Natural Science (12% use frequently).

Figure 61: Lecturers - Usage of AI-based tools for personalizing learning or students engagement, by discipline of expertise

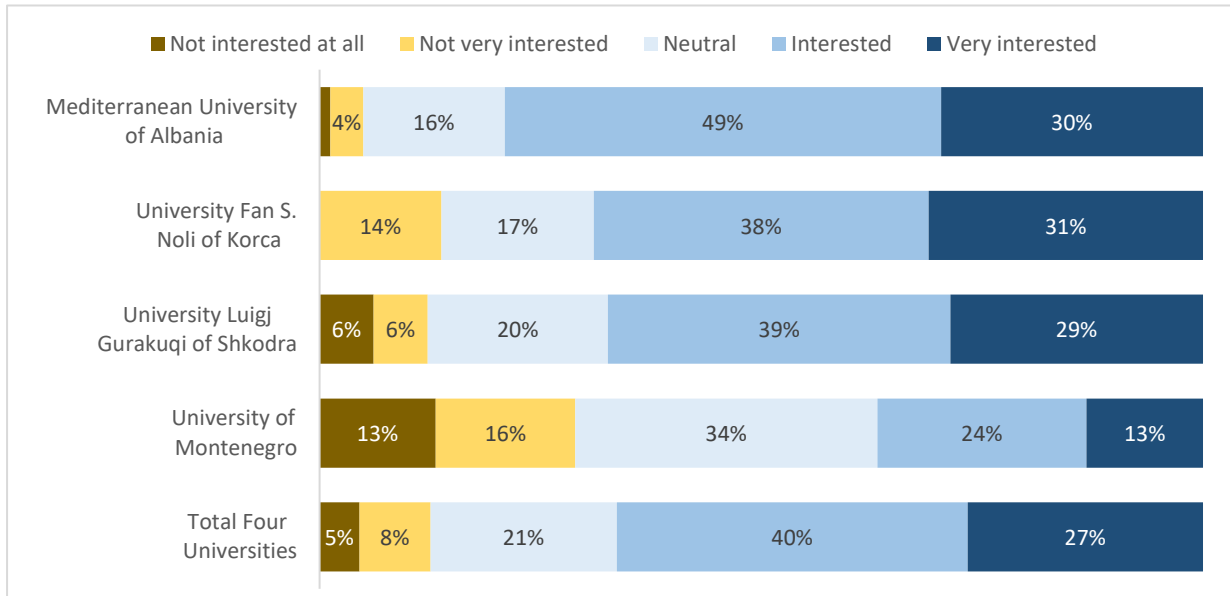


Level of Interest in Learning

When Lecturers were asked how interested they were in incorporating AI/machine learning into their curriculum, 27% are “very interested”, and 40% are “interested”.

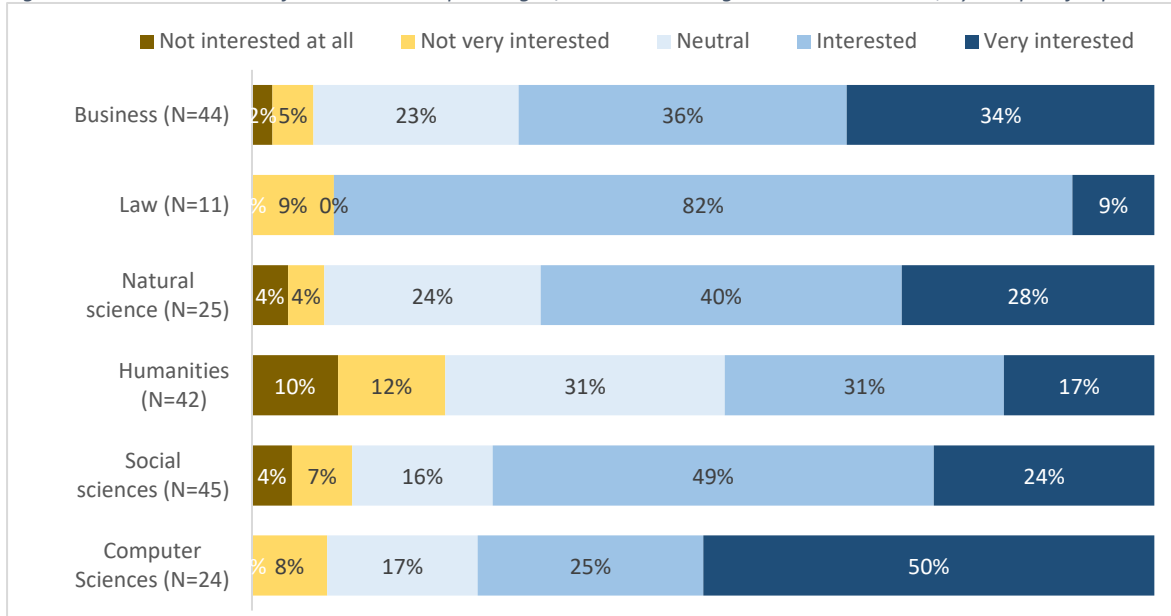
Lecturers at the University of Montenegro are less interested in incorporating AI/machine learning into their curriculum, compared to lecturers of other three universities.

Figure 62: Lecturers - Level of interest in incorporating AI/machine learning into their curriculum by university



The highest level of interest in incorporating AI/machine learning into curriculum as expected is for lecturers with Computer Science profile. Apart from Law results which are indicative the lowest level of interest in incorporating AI/machine learning into their curriculum is shown in lecturers of Humanities.

Figure 63: Lecturers - Level of interest in incorporating AI/machine learning into their curriculum, by discipline of expertise





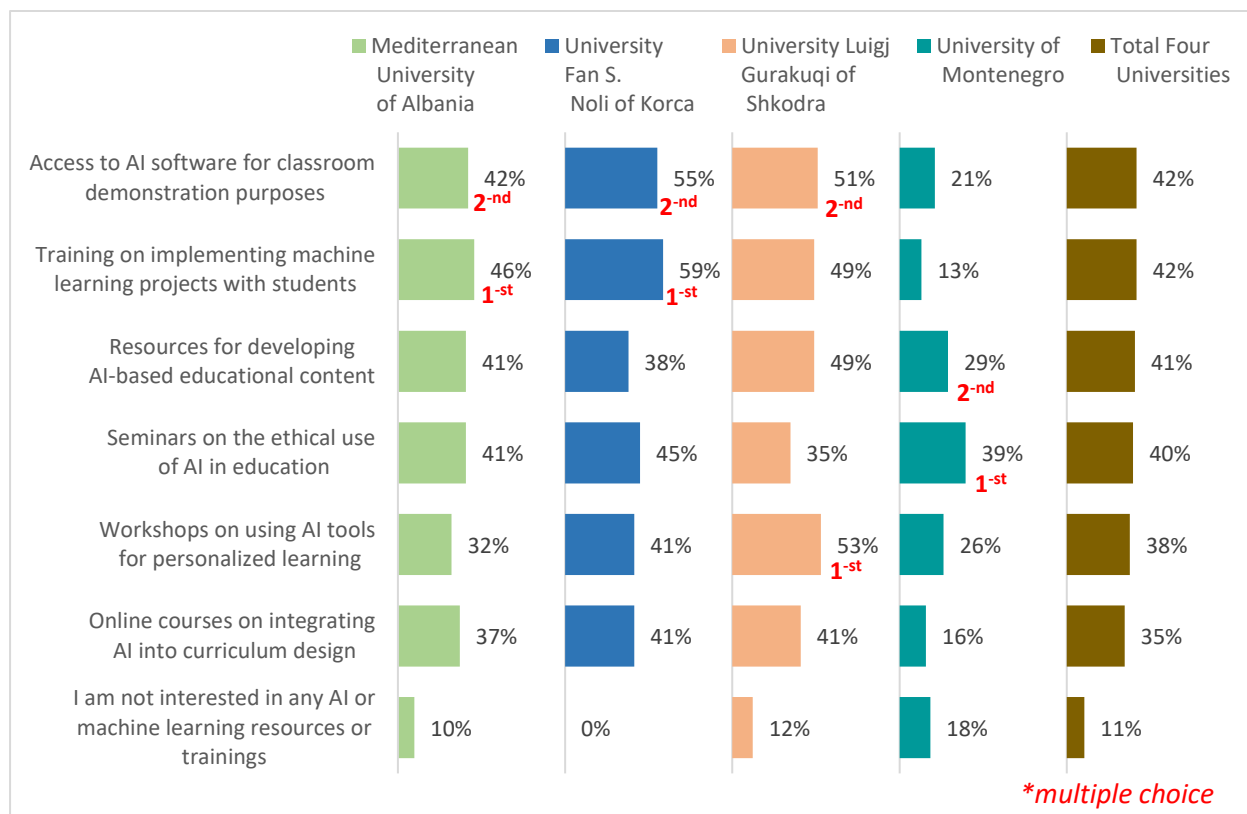
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About 42% of the lecturers wish to have access to AI software for classroom demonstration purposes, so they can improve their teaching. Also, 42% of them want to have training on implementing machine learning projects with students, 41% want to have Resources for developing AI-based educational content, and 40% want to have Seminars on the ethical use of AI in education.

Only 11% of lecturers are not interested in any AI or machine learning resources or training.

Regarding the differences by university, lecturers at the University of Montenegro want Seminars on the ethical use of AI in education (39%), and lecturers at the University of Shkodra “Luigj Gurakuqi”, want Workshops on using AI tools for personalized learning (53%). Training on implementing machine learning projects with students is wanted the most by lecturers at the University of Korça “Fan S. Noli”, and the Mediterranean University of Albania.

Figure 64: Lecturers - Resources and Training desired by lecturers for enhancing teaching, preferences by university

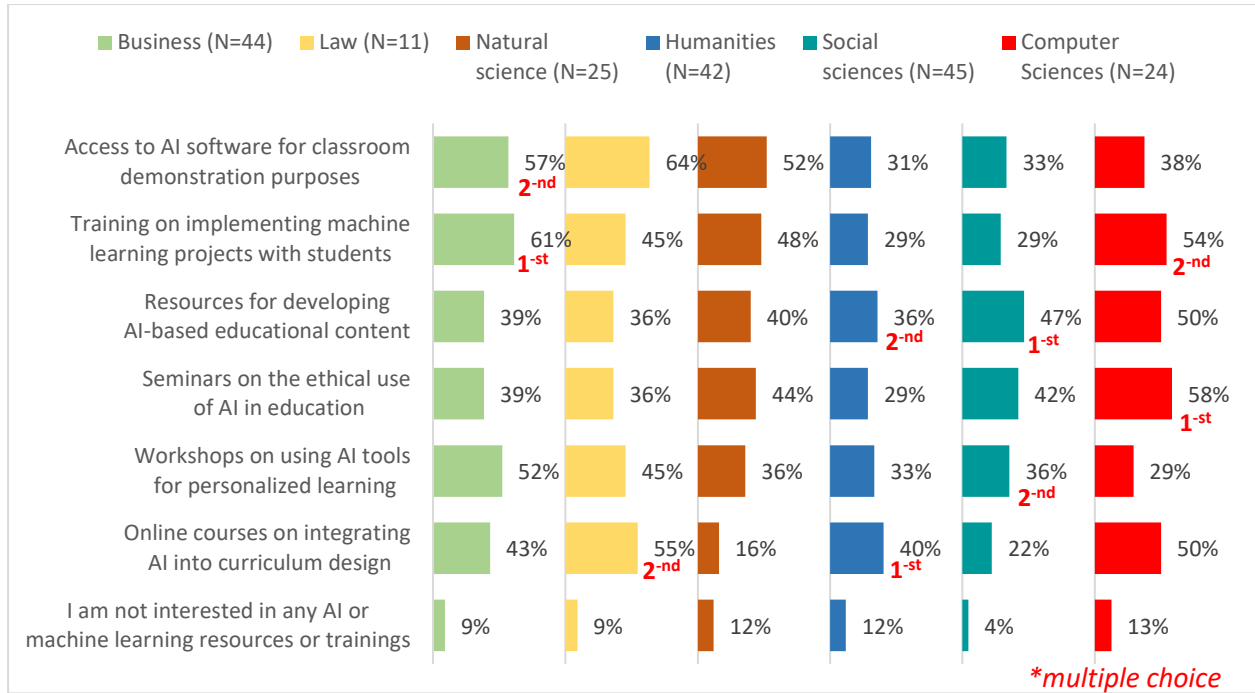


A majority of lecturers specializing in Business express a desire for access to training in implementing machine learning projects with students, constituting 61% of the respondents. Similarly, 52% of lecturers with expertise in Natural Sciences aspire to access AI software for classroom demonstration purposes. Conversely, lecturers in Humanities seek online courses on integrating AI into curriculum design (40%), while those in Social Sciences express a desire for resources to develop AI-based educational content (47%). Lecturers specializing in Computer Sciences express a preference for seminars on using AI tools for personalized learning (58%) as a means to enhance their teaching methodologies.

Notably, less than 13% of lecturers across various profiles express disinterest in any AI or machine learning resources or training opportunities.



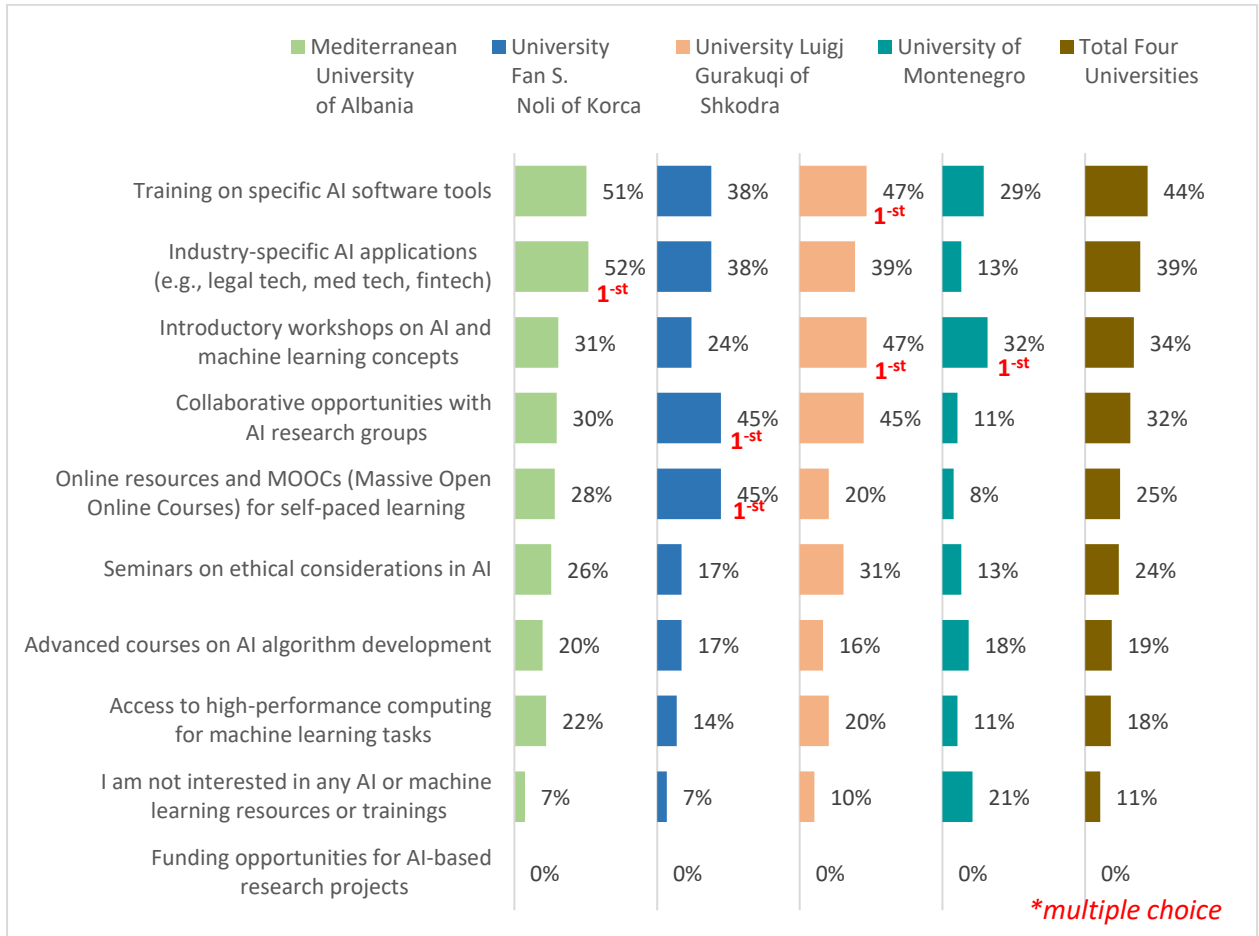
Figure 65: Lecturers - Resources and Training desired by lecturers for enhancing teaching, preferences by discipline of expertise



About 44% of the lecturer respondents wish to have Training on specific AI software tools, 39% to have Industry-specific AI applications (e.g., legal tech, med tech, fintech). The third most desired resource or training by 34% of lecturers is Introductory workshops on AI and machine learning concepts, so they can improve their research. In total 11% are not interested in any AI or machine resources or trainings. Different from the total, lecturers of the University of Korça “Fan S. Noli”, are most interested or wish to have Collaborative opportunities wish AI research groups, (45%), and Online resources and MOOCs (Massive Open Online Courses) for self-paced learning.

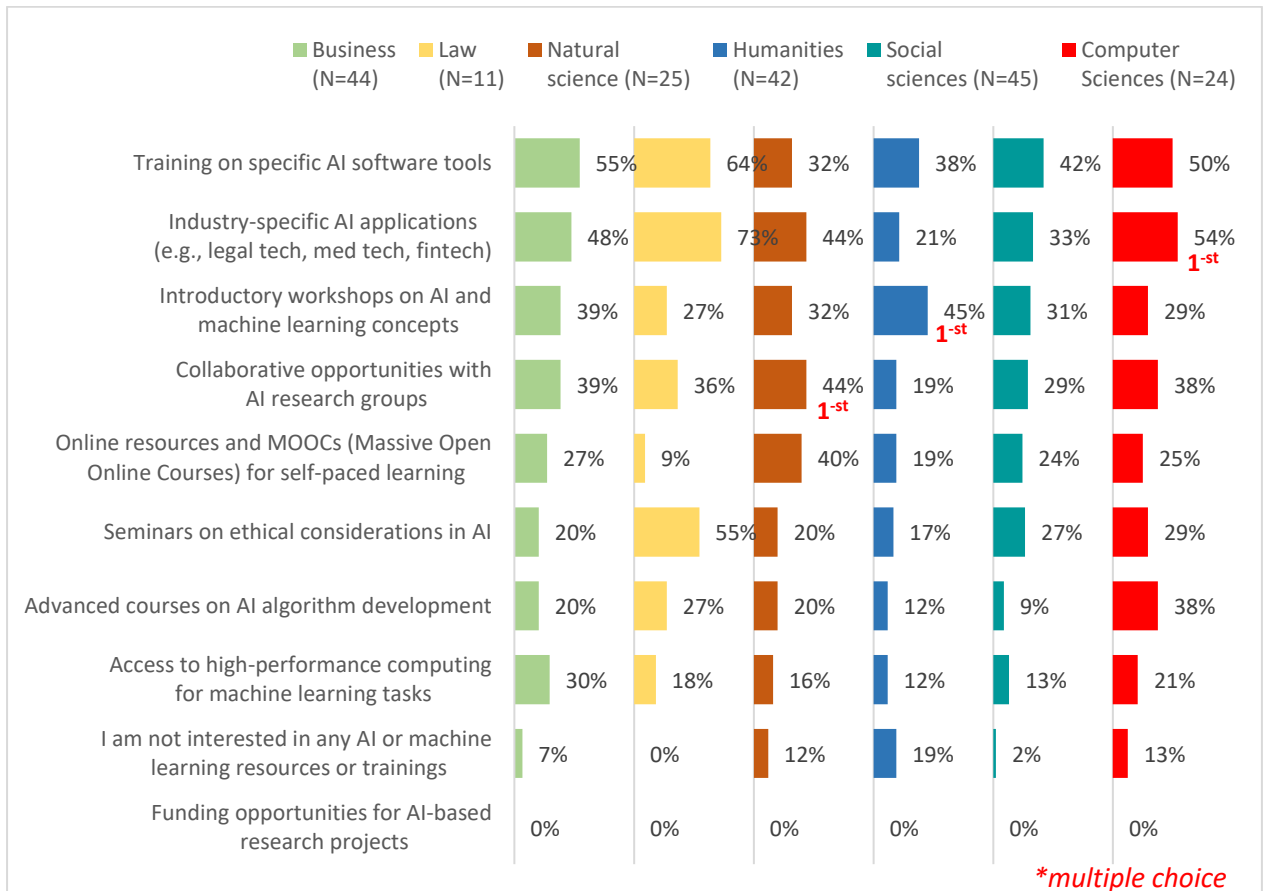
About 21% of the lecturers at the University of Montenegro are not interested in any AI or machine resources or trainings, compared to 10% of lecturers at the University of Shkodra “Luigj Gurakuqi”, and 7% of lecturers at the University of Korça “Fan S. Noli”, and Mediterranean University of Albania.

Figure 66: Lecturers - Preferred Resources and Training for lecturers to enhance research, by University



The same results disaggregated by discipline of expertise of lecturers show that Lecturers with a profile of Computer Science wish to have Industry-specific AI applications (e.g., legal tech, med tech, fintech) so they can improve their research (54%). On the other hand, Lecturers of Humanities wish to have collaborative opportunities with AI research groups (44%). About 45% of Lecturers with expertise in Social Science wish to have Introductory workshops on AI and machine learning concepts. Training on specific AI software tools is what most of the lectures of Business and Social Sciences wish to have in order to improve their research activities. The least interested in having any AI or machine learning resources or training are lecturers of Social Sciences (19%), and of Computer Sciences (13%).

Figure 67: Lecturers - Preferred Resources and Training for lecturers to enhance research, by discipline of expertise



In the focus groups, lecturers articulate a multifaceted stance on digital literacies. Their eagerness for Digital Literacies Training stems from its potential to revolutionize teaching methodologies and amplify student efficiency. They note the dual-edged nature of digital tools: on one hand, these tools, like Google Translate, significantly ease and expedite educational tasks. On the other, there's apprehension about students' dependency on AI for critical academic tasks, particularly thesis writing, which raises questions about academic integrity. This complexity elicits a desire among lecturers to master AI technologies to enhance academic productivity while mitigating the risks associated with improper use.

Additionally, lecturers highlight a critical infrastructural gap within institutions: the lack of support in accessing more sophisticated digital tools. This deficiency leads to reliance on free, non-standardized tools, resulting in inconsistent application and challenges in effective implementation. This situation underscores a broader institutional issue, indicating a pressing need for universities to invest in and standardize digital resources. Such investment would not only streamline teaching processes but also ensure that both lecturers and students are equipped with the necessary skills and tools to navigate the increasingly digital landscape of academia effectively.



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3.3 Findings regarding stakeholders

Stakeholders (4 focus groups, 47 participants in total) from various sectors, including business, local government, civil society organizations, and media, have articulated specific concerns regarding digital literacies at the university level. They perceive a significant discrepancy between the digital skills that students are acquiring in universities and the more complex, advanced skills required in the professional realm. Particularly in rapidly digitalizing sectors like banking, there is a notable urgency for skills beyond basic digital literacy. These stakeholders have observed that while universities have been successful in imparting fundamental digital skills, such as basic Microsoft Office Suite proficiency, they fall short in equipping students with more sophisticated digital competencies. Stakeholders also point out the insufficient use of digital technology in administrative university processes, leading to inefficient practices like physical queues for exam registration.

The concern extends to the lack of practical application and hands-on experience in current academic curricula. Stakeholders argue that theoretical knowledge of digital tools is not sufficient; students need real-world experience to effectively apply these skills. The stakeholders' insights also reveal a disparity in digital skills across different academic levels, with undergraduate students often lacking even the basic digital competencies. This inconsistency in digital literacies progression, as observed by the stakeholders, suggests a need for a more uniform and practical approach to digital education across all levels of university study.

Furthermore, stakeholders have noted that the current educational system does not adequately prepare students for the specific digital demands of the job market. They point out that while students may eventually acquire job-specific digital skills after employment, the initial skill set provided by university education needs further enhancement to meet industry standards. This gap in preparedness could potentially hinder graduates' transition into the workforce, necessitating a more targeted and industry-relevant approach to digital skill development within university programs.

Additionally, stakeholders highlight the concern about the teaching and retention of digital skills at universities. While basic skills are included in the curriculum, the lack of their continued application leads to skill attrition over time. This suggests a deeper problem in how digital literacies is integrated into higher education; it's not just about teaching these skills, but also ensuring they are continually reinforced and applied in various academic contexts. Furthermore, the questioning of lecturers' own digital proficiency reflects a systemic challenge within the educational system, implying a need for ongoing professional development for educators. This issue extends back to secondary education, where the teaching of informatics often falls to underqualified teachers, indicating a foundational problem in the early stages of digital education. This scenario underscores the need for a comprehensive overhaul in the approach to digital literacies across all levels of education, ensuring that both students and educators are equipped with, and maintain, relevant digital competencies.





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4. CONCLUSIONS AND RECOMMENDATIONS

The state of digital literacy in the Western Balkans needs to be addressed promptly and qualitatively. From the analysis above it is evident that universities in Western Balkans need a comprehensive and extensive intervention when it comes to digital literacy. Poor digital literacy at the university level affects teaching and learning significantly, while also affecting the employability and job retention of students in the future.

For universities to be competitive, innovative and digital savvy, a series of recommendations are drawn as below:

Students' recommendations for enhancing their digital literacy in Albania and Montenegro:

1. Formalization of Communication

It is recommended that universities formalize their communication with students, favoring the use of emails over other tools (e.g. WhatsApp). Emails, apart from being official, allow for a more organized, traceable, documentable, and accountable means of communication.

2. Enhancement of University Infrastructure

It is recommended for universities to plan and budget for improved technology infrastructure, including an increase in the number of computers available to students, projectors and other digital tools in the classroom. These investments in technology infrastructure are detrimental to the improvement of digital literacy of students, as well as to practice skills learned in the classroom. Additionally, to fully make use of resources, WiFi availability in all university classrooms is important.

3. Optimization of Online Library Access

Universities should enhance online library access, by adding the width and depth of titles available. Also, it is important to conduct awareness campaigns, as well as offer support to students in accessing the resources available in the Online Library, allowing students to increase their outputs relying on the wealth of information available to them.

4. Adoption of Modern Teaching Methods

Modern teaching methods are essential for enhancing student engagement and learning outcomes. Lecturers should be encouraged to embrace these methods, which involve active and collaborative learning, collaborative and/or game-based and flipped classroom models. To implement these methods effectively, lecturers should incorporate more visual presentations, such as slides, videos, and diagrams, to appeal to different learning styles and preferences. Additionally, lecturers should expand the utilization of diverse digital tools, such as online platforms, interactive games, and virtual simulations, to facilitate communication, feedback, and assessment.

5. Strengthening of Digital Literacies Training

Students across all academic profiles should have access to comprehensive Digital Literacies Training that covers the skills and competencies required to use technology effectively, critically, and ethically. Such training can be provided either through university initiatives, such as courses, workshops, or online modules, or through external organizations, such as professional associations, NGOs, or online platforms. By promoting the provision of Digital Literacies Training, students can enhance their academic performance, employability, and lifelong learning.





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6. Curricular Adaptation for the Digital Future: Integrate digital tools into the curriculum to align educational programs with the demands of the evolving digital landscape.

It is recommended that universities develop new curricula, or update existing ones, to provide education fit for the needs of the labor market and the ever-evolving landscape. Furthermore, extra curricular subjects on digital rights can be implemented in universities, so students can make use of an organized, updated space to enhance their digital literacy. By inviting guest lecturers and subject matter experts to share their knowledge and experiences on digital literacies, educators can enrich their students' learning and motivation, and foster their lifelong learning and curiosity.

Lecturers' recommendations for enhancing their digital literacy in Albania and Montenegro:

1. Improved technology infrastructure (More new computers, Improved network, Access to WIFI, etc.)

One of the key factors for enhancing the quality and accessibility of digital education is the improvement of the infrastructure that supports it. This includes providing more new computers, improving the network speed and reliability, and ensuring access to WIFI for all students and teachers. A well-developed infrastructure can facilitate the delivery of online courses, the use of digital tools and resources, and communication and collaboration among learners and educators. Thus, universities are recommended to plan and budget for improvement of technological infrastructure.

2. Access to Online Libraries

Universities should enhance online library access, by adding the width and depth of titles available. This can be achieved by creating partnerships with other HEIs, libraries, or other stakeholders. Planning and budgeting is detrimental to achieve access to online libraries.

3. Institutional strategic framework on digital literacy

Universities should develop digitalization strategies that drive digitalization at the university level, both on an operational and teaching level. Having a framework allows for due planning, budgeting and implementation. Such institutional strategies can foster use of digital tools in teaching.

4. Curricula and trainings on digital literacy

It is recommended that universities revise their curricula on digital literacy, and how digital literacy affects their curricula, for the best absorption of course content, and to the end benefit of students and lecturers both. Customized trainings for lecturers are highly recommended so that knowledge can be passed to students seamlessly and comprehensively.

5. Standardized tools and platforms at the university level.

Universities should offer for use access to licensed platform's software, so lecturers can access such platforms without any barriers of access.

6. Erasmus+ knowledge sharing.

It is recommended initiating Erasmus+ CBHE experience exchange with other institutions benefiting Erasmus+ CBHE support. By sharing experiences from the Erasmus + Program, students and teachers can broaden their perspectives and networks, and increase their digital literacy, and mobility. A regional platform that allows detailed information exchange is recommended as necessary for lecturers looking into widening their networks, and skills.





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7. Ensuring a flexible legal framework.

It is recommended that advocacy for improving the legal and regulatory framework in place starts at the university level. The rapid pace of development of digital technologies requires agile education institutions, that have decision making and independence from an academic point of view.

8. Privacy and Security Training

Privacy and Security Training is a crucial component of ensuring the protection and integrity of personal data in the digital age. Lecturers should be provided with training sessions on how to safeguard personal data and enhance cybersecurity awareness, both for themselves and their students. Such training sessions can cover topics such as data privacy laws and regulations, data classification and handling, data breach prevention and response, encryption and authentication, phishing and malware, and online safety and ethics.

Recommendations from stakeholders for Enhancing Digital Literacies in partner universities of U2SID project in Albania and Montenegro

1. Curriculum and Training Enhancement

It is recommended to enhance the curricula by introducing new courses, workshops, or certifications focusing on digital tools. This should include the integration of advanced digital software, such as web-based Excel, finance, and accounting tools. Additionally, the provision of ongoing training opportunities for students and academic staff as extracurricular activities is advised, with a focus on tailoring these training programs to address the specific practical needs and experiences of the students.

2. Mentorship and Professional Experience

Establish mentorship programs where professionals from relevant fields can guide and mentor students, offering insights into the practical application of digital tools in professional settings. These programs should be accessible to both staff and students. Creating opportunities for internships and joint projects with industry partners is recommended to provide hands-on experience. Engaging students in projects that enhance their digital skills development is also advised.

3. Access to Resources and Collaboration

Facilitate access to industry-specific resources, databases, or case studies for both staff and students. Strengthening university-business collaboration through networks that connect students with job opportunities is crucial. Accelerating the digitization of university libraries, including rare books and periodicals, and extending this initiative to school libraries for a collective digitization effort is recommended.

4. Communication and Digital Platforms

Develop a user-friendly, real-time digital communication platform to serve as a bridge between the university, businesses, and other institutions. Establish a standard for communication with a unified





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platform, clearly defining its name and participation standards. Address challenges related to existing web-based platforms by focusing on immediacy and responsiveness. Ensuring open access to digitized materials, with a fair fee structure, is also recommended.

5. Innovative Digital Initiatives

Investigate the potential interest in and implementation of audiobook programs as an alternative to traditional reading. Support and promote podcast initiatives to provide a platform for young people to express themselves, integrating these into university activities and outreach. Encourage interdisciplinary collaboration by involving various departments and faculties in joint digital projects.

6. Continuous Engagement and Development

Recommendation: Regularly facilitate meetings with stakeholders to integrate their expertise with academic curricula. Foster continuous engagement and regularly review and enhance collaborative programs. Ensure that these initiatives are dynamic, responsive to changing needs, and contribute meaningfully to the development of both students and the community.

Stakeholders recommendations:





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- ~~Curriculum enhancement~~—Introducing new courses, workshops, or certifications that focus on digital tools;
- ~~Mentorship Programs~~—Establish mentorship programs where professionals from the field can guide and mentor students, offering insights into the practical application of digital tools and skills in a professional setting;
- ~~Common trainings and/or mentorship programs for both staff and students; Establishing internships, joint projects, or industry partnerships that offer hands-on experience;~~
- ~~Access to Industry Resources~~—Facilitating access to industry-specific resources, databases, or case studies that can aid both staff and students in staying abreast of industry best practices and emerging digital trends.
- ~~Integrate advanced digital software like web-based Excel, finance, and accounting tools into curricula.~~
- ~~Offer ongoing training for students and academic staff as extracurricular activities.~~
- ~~Tailor training to address specific student needs arising from practical experiences.~~
- ~~Facilitate regular meetings with stakeholders to merge their expertise with academic curricula.~~
- ~~Engage students in projects that foster the development of digital skills, enhancing their practical application and relevance.~~
- ~~Establish strong university-business collaboration: Foster a closer relationship between the university and businesses by leveraging the Career Center, alumni network, and university website to connect students with job opportunities.~~
- ~~Develop a real-time digital communication platform: Create a user-friendly, real-time digital platform/application that serves as a communication bridge between the university, businesses, and other institutions. Ensure it is simple, cost-effective, and allows for targeted information distribution.~~
- ~~Name and standardize the digital platform: Establish a standard for communication by implementing a unified platform. Define a name and set clear standards for participation to ensure that relevant information reaches the intended audience.~~
- ~~Address challenges of web-based information sharing: Overcome challenges related to existing web-based platforms by focusing on immediacy and responsiveness. Ensure that the proposed application addresses the limitations of current systems, providing a more effective means of communication.~~
- ~~Enhance library digitization efforts: Accelerate the digitization of the university library's rare books and periodicals. Work with the municipality to ensure access to digitized materials, and explore the possibility of offering open access to the community.~~
- ~~Extend digitization to school libraries: Consider extending digitization efforts to school libraries, collaborating with schools that have valuable assets to create a collective effort. Establish internal regulations and guidelines for this initiative.~~
- ~~Explore audiobooks for education: Investigate the potential interest of students in audiobooks as an alternative to traditional reading. Implement programs that encourage literacy through audiobooks and consider collaborative efforts with businesses or other institutions.~~
- ~~Promote podcast initiatives: Support initiatives related to podcasts, creating a space for young people to express themselves. Collaborate with the municipality to integrate podcast initiatives into university activities and outreach.~~
- ~~Encourage interdisciplinary collaboration: Encourage interdisciplinary collaboration by involving different departments, faculties, and external stakeholders in joint projects. Emphasize the importance of cooperation in achieving shared goals.~~
- ~~Ensure open access to digitized materials: When implementing a fee for accessing digitized materials, consider creating opportunities for multiple accounts to ensure open access. Collaborate with the municipality to establish fair fee structures that support broader access.~~





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- ~~Continuous engagement and program development: Foster continuous engagement between stakeholders and regularly review and enhance collaborative programs. Ensure that initiatives are dynamic, responsive to changing needs, and contribute meaningfully to the development of both students and the community.~~





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40.5. ANNEXES

Annex 1 – Questionnaire for students

Digital Literacies Survey for University Students

Introduction

This questionnaire aims to better understand the level of digital literacies and specific needs of academic staff at four universities participating in the U2SID project. The data will be used to develop a report and provide specific recommendations for the upcoming activities of the U2SID project. The anonymity of responses will be ensured. It takes 7-10 minutes to complete this questionnaire. We thank you in advance for being realistic in your responses which will help better prepare for the upcoming activities of U2SID project targeting both students and academic staff.

U2SID Team

Section 1: Demographic Information

I study at:

- University “Luigj Gurakuqi” of Shkodra
- University “Fan S. Noli” of Korça
- Mediterranean University of Albania
- University of Montenegro
- Other (please specify)

My discipline of study is:

- Business (Accounting, economics, finance, management, marketing)
- Law
- Humanities (Art, history, languages, literature, music, philosophy, religion, theatre)
- Natural sciences (Biology, chemistry, geology, mathematics, physics, medicine)
- Computer Sciences, Information Technology and related fields
- Social sciences (Anthropology, education, geography, political science, psychology, sociology, communication, media)
- Engineering, architecture, design and related fields
- Other (please specify)

Gender:

- Male
- Female
- Prefer not to say

Select the type of area you live in:

- Urban area
- Rural area

Current Level of Study:

- Bachelor
- Masters





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Year of Study:

- 1
- 2
- 3

Section 2: Skill Self-Assessment

For each statement, please select the option that best describes your experience.

State your level of proficiency from 1 to 5 in “Basic Computer Skills: Using an operating system, managing files, and understanding basic hardware”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “Internet Navigation: Using search engines, evaluating online sources, and understanding internet safety”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “Productivity Software: Proficiency in word processing, spreadsheets, and presentation software”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “Communication Tools: Email, instant messaging, video conferencing, and collaboration platforms”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “Digital Creation: Basic photo editing, video production, or website creation”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used





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State your level of proficiency from 1 to 5 in “Information Literacy: Finding, evaluating, using, and citing digital information”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “Cybersecurity Awareness: Understanding of personal data protection, password security, and awareness of phishing scams”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “Social Media Literacy: Creating content, understanding digital footprints, and privacy settings”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “Data Literacy: Understanding of data collection, analysis, and interpretation”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “E-Learning Platforms: Navigating online learning systems and digital libraries”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of prompt proficiency from 1 to 5 used in “Generative AI related to learning: Using ChatGPT or similar tools for class assignments or learning new class concepts”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient





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Do Not Know/Not Used

State the level of your lecturers proficiency from 1 to 5 used in “Communication Tools: Email, instant messaging, video conferencing”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State the level of your lecturers proficiency from 1 to 5 used in “Information Literacy: Finding, evaluating, using, and citing digital information”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State the level of your lecturers proficiency from 1 to 5 used in “Data Literacy: Understanding of data collection, analysis, and interpretation”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

Section 3: Training Preferences and Needs Identification

What specific digital literacies do you wish to improve or learn? Choose one most interested in

- Basic Computer Skills: Using an operating system, managing files, and understanding basic hardware.
- Internet Navigation: Using search engines, evaluating online sources, and understanding internet safety.
- Productivity Software: Proficiency in word processing, spreadsheets, and presentation software.
- Communication Tools: Email, instant messaging, video conferencing, and collaboration platforms.
- Digital Creation: Basic photo editing, video production, or website creation.
- Information Literacy: Finding, evaluating, using, and citing digital information.
- Cybersecurity Awareness: Understanding of personal data protection, password security, and awareness of phishing scams.
- Social Media Literacy: Creating content, understanding digital footprints, and privacy settings.
- Data Literacy: Understanding of data collection, analysis, and interpretation.
- E-Learning Platforms: Navigating online learning systems and digital libraries.
- Generative AI Literacy (ChatGPT, Claude, Barn, etc.): Accessing Generative AI, Understanding the capabilities of Generative AI, writing basic prompts.

What specific digital literacies do you wish to improve or learn? Choose three most interested in excluding the one chosen above

- Basic Computer Skills: Using an operating system, managing files, and understanding basic hardware.
- Internet Navigation: Using search engines, evaluating online sources, and understanding internet safety.





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- Productivity Software: Proficiency in word processing, spreadsheets, and presentation software.
- Communication Tools: Email, instant messaging, video conferencing, and collaboration platforms.
- Digital Creation: Basic photo editing, video production, or website creation.
- Information Literacy: Finding, evaluating, using, and citing digital information.
- Cybersecurity Awareness: Understanding of personal data protection, password security, and awareness of phishing scams.
- Social Media Literacy: Creating content, understanding digital footprints, and privacy settings.
- Data Literacy: Understanding of data collection, analysis, and interpretation.
- E-Learning Platforms: Navigating online learning systems and digital libraries.
- Generative AI Literacy (ChatGPT, Claude, Barn, etc.): Accessing Generative AI, Understanding the capabilities of Generative AI, writing basic prompts.

Preferred formats for digital literacies training (select all that apply):

- Online video tutorials
- Live online classes/webinars
- In-person workshops
- Interactive group sessions
- One-on-one coaching

How often do you want the frequency of training sessions to be:

- Once a year
- Once a semester
- Once a month
- Once a week
- Twice a week
- Intensive (e.g., a full week or weekend)

What are the barriers to attending digital literacy training sessions? (select all that apply)

- Scheduling conflicts
- Lack of interest
- Not aware of available training
- Previous training sessions were not helpful
- Prefer to learn on my own
- Other [Please specify]: _____

Level of detail desired in training:

- Overview (Basic understanding)
- Intermediate (Detailed with some hands-on practice)
- Comprehensive (In-depth with extensive hands-on practice)
- Expert (Advanced techniques and use cases)

Other comments/suggestions

Annex 2 – Questionnaire for lecturers

University Lecturers Digital Literacies Survey





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Introduction

This questionnaire aims to better understand the level of digital literacies and specific needs of Bachelor and Master students at four universities participating in the U2SID project. The data will be used to develop a report and provide specific recommendations for the upcoming activities of the U2SID project. The anonymity of responses will be ensured. It takes 5-7 minutes to complete this questionnaire. We thank you in advance for being realistic in your responses which will help better prepare for the upcoming activities of U2SID project targeting both students and academic staff.

U2SID Team

Section 1: Demographic Information

I work at:

- University “Luigj Gurakuqi” of Shkodra
- University “Fan S. Noli” of Korça
- Mediterranean University of Albania
- University of Montenegro
- Other (please specify)

My discipline of expertise is:

- Business (Accounting, economics, finance, management, marketing)
- Law
- Humanities (Art, history, languages, literature, music, philosophy, religion, theater)
- Natural sciences (Biology, chemistry, geology, mathematics, physics, medicine)
- Computer Sciences, Information Technology and related fields
- Social sciences (Anthropology, education, geography, political science, psychology, sociology, communication, media)
- Engineering, architecture, design and related fields
- Other (please specify)

Gender:

- Male
- Female
- Prefer not to say

Years of Teaching Experience:

- 0-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- 20+ years

Have you participated in any form of digital literacies training in the past year?

- Yes
- No

Please explain: _____

Section 2: Skill Self-Assessment

For each statement, please select the option that best describes your experience.





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State your level of proficiency from 1 to 5 in “Basic Computer Skills: Using an operating system, managing files, and understanding basic hardware”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “Internet Navigation: Using search engines, evaluating online sources, and understanding internet safety”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “Productivity Software: Proficiency in word processing, spreadsheets, and presentation software”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “Communication Tools: Email, instant messaging, video conferencing, and collaboration platforms”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “Digital Creation: Basic photo editing, video production, or website creation”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “Information Literacy: Finding, evaluating, using, and citing digital information”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used





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State your level of proficiency from 1 to 5 in “Cybersecurity Awareness: Understanding of personal data protection, password security, and awareness of phishing scams”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “Social Media Literacy: Creating content, understanding digital footprints, and privacy settings”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “Data Literacy: Understanding of data collection, analysis, and interpretation”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State your level of proficiency from 1 to 5 in “E-Learning Platforms: Navigating online learning systems and digital libraries”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State the level of your students proficiency from 1 to 5 used in “Communication Tools: Email, instant messaging, video conferencing”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

State the level of your students proficiency from 1 to 5 used in “Information Literacy: Finding, evaluating, using, and citing digital information”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient





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5 - Highly proficient
Do Not Know/Not Used

State the level of your students proficiency from 1 to 5 used in “Data Literacy: Understanding of data collection, analysis, and interpretation”:

- 1 - No proficiency
- 2 - Limited proficiency
- 3 - Moderate proficiency
- 4 - Proficient
- 5 - Highly proficient
- Do Not Know/Not Used

Section 3: Usage of digital tools, AI, machine learning in teaching and research

Usage of Digital Tools in Teaching

How often do you use digital tools (such as presentation software, online quizzes, etc.) in your teaching?

- Never
- Rarely
- Sometimes
- Often
- Always

To what extent do you integrate learning management systems (e.g., Blackboard, Moodle, Canvas, MS Teams) into your course delivery?

- Not at all
- Minimally, for basic functions only (e.g., posting announcements)
- Moderately, for some interactive functions (e.g., forums, quizzes)
- Extensively, for a wide range of functions (e.g., grading, feedback, content delivery)
- Exclusively, for all course functions

Which of the following digital assessment tools have you utilized in your teaching? (select all that apply)

- Online multiple-choice quizzes
- Automated essay grading software
- Peer assessment platforms
- Virtual labs/simulations
- None of the above
- Other _ specify

AI and Machine Learning in Teaching

Have you used any AI-based tools for personalizing learning or student engagement?

- Yes, frequently
- Yes, but only occasionally
- No, but I am interested in learning more
- No, and I am not interested

What is your level of interest in incorporating AI/machine learning into your curriculum?

- Very interested
- Interested
- Neutral





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- Not very interested
- Not interested at all

Usage of Digital Tools and AI in Research

Select the digital research tools you use in your academic work. (select all that apply)

- Bibliographic and citation tools (e.g., Zotero, EndNote)
- Data analysis software (e.g., SPSS, R, MATLAB)
- Qualitative data analysis (e.g., NVivo, Atlas.ti)
- Online survey platforms (e.g., Qualtrics, SurveyMonkey)
- None of the above

How frequently do you utilize AI or machine learning tools (ChatGPT, Bard, etc.) in your research activities?

- Never
- Rarely
- Sometimes
- Often
- Always

Assess your own level of expertise in using AI and machine learning tools (ChatGPT, Bard, etc.) for research purposes.

- Novice
- Beginner
- Competent
- Proficient
- Expert

Section 4: Training Preferences and Needs Identification

What barriers do you encounter when trying to improve your digital literacy? (select all that apply)

- Lack of time
- Lack of institutional support
- Insufficient training opportunities
- Overwhelmed by the fast pace of digital change
- Comfortable with current level of digital literacy
- Other [Please specify]: _____

What specific digital literacies do you wish to improve or learn? Choose one most interested in

- Basic Computer Skills: Using an operating system, managing files, and understanding basic hardware.
- Internet Navigation: Using search engines, evaluating online sources, and understanding internet safety.
- Productivity Software: Proficiency in word processing, spreadsheets, and presentation software.
- Communication Tools: Email, instant messaging, video conferencing, and collaboration platforms.
- Digital Creation: Basic photo editing, video production, or website creation.
- Information Literacy: Finding, evaluating, using, and citing digital information.
- Cybersecurity Awareness: Understanding of personal data protection, password security, and awareness of phishing scams.
- Social Media Literacy: Creating content, understanding digital footprints, and privacy settings.
- Data Literacy: Understanding of data collection, analysis, and interpretation.
- E-Learning Platforms: Navigating online learning systems and digital libraries.
- Generative AI Literacy (ChatGPT, Claude, Barn, etc.): Accessing Generative AI, Understanding the capabilities of Generative AI, writing basic prompts.





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Preferred formats for digital literacies training (select all that apply):

- Online video tutorials
- Live online classes/webinars
- In-person workshops
- Interactive group sessions
- One-on-one coaching

How frequently would you like to receive digital literacy training?

- Once a semester
- Once a year
- On-demand/as needed
- Other [Please specify]: _____

Would you be interested in becoming a digital literacy peer trainer after sufficient training?

- Yes
- No
- Maybe
- Do not know

Are there specific AI or machine learning resources or trainings you wish to have access to for improving your teaching? (Select all that apply)

- Online courses on integrating AI into curriculum design
- Workshops on using AI tools for personalized learning
- Training on implementing machine learning projects with students
- Seminars on the ethical use of AI in education
- Resources for developing AI-based educational content
- Access to AI software for classroom demonstration purposes
- I am not interested in any AI or machine learning resources or trainings
- Other (please specify): _____

Are there specific AI or machine learning resources or trainings you wish to have access to for improving your research? (Select all that apply)

- Introductory workshops on AI and machine learning concepts
- Advanced courses on AI algorithm development
- Training on specific AI software tools
- Seminars on ethical considerations in AI
- Collaborative opportunities with AI research groups
- Access to high-performance computing for machine learning tasks
- Online resources and MOOCs (Massive Open Online Courses) for self-paced learning
- Industry-specific AI applications (e.g., legal tech, med tech, fintech)
- Funding opportunities for AI-based research projects
- I am not interested in any AI or machine learning resources or trainings
- Other (please specify): _____





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Annex 3 – Focus group guideline for students

Focus group guideline: Students

Objective:

To gather qualitative insights from university students about their experiences, challenges, and needs related to digital literacies, digital tools, AI, and machine learning in their learning.

Participants:

10-12 students from each university partner, representing diverse faculties and both Bachelor and Master levels.

Facilitation Team:

Facilitated by the U2SID project team member in each of 4 partner universities with briefing if needed by SCiDEV team

Duration:

1-2 hours per focus group session.

Preparation:

- Ensure a comfortable venue that promotes open discussion.
- Prepare and test all recording equipment (use smartphone recording options).
- Create an attendance list as per U2SID template that includes consent for photos and recordings.
- Designate roles among the facilitation team (e.g., moderator, note-taker, photographer).
- Make sure participants are aware of what will be done with the collected data and who will have access to it.

During the focus group

Introduction (10 -15 minutes):

- Welcome and introductions by the facilitation team.
- About U2SID project
- About this need assessment exercise and study aim
- Overview of the focus group's objectives and structure.
- Anonymity and confidentiality assurances.

Guided Discussion (40-75 minutes)

- Begin with general questions to ease into the discussion.
- Use open-ended questions to explore lecturers' experiences with digital tools and AI.
- Encourage sharing of both positive experiences and challenges.
- Facilitate the discussion, ensuring all participants have the opportunity to contribute.
- Go in depth in any specific topics of interest for the assessment and participants

Guiding questions:

- Could you please introduce yourself and share one technology tool or app you cannot imagine studying without?
- Have you ever had to create digital content (such as a video or website) for a class? What did you learn from that experience?
- How do you determine the credibility and relevance of digital information for your assignments?





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- Can you share any personal rules or practices you follow to protect your privacy and data online?
- In what ways do you use social media for academic and professional networking?
- Which e-learning platforms are you required to use for your courses, and what has been your experience with them?
- What are your thoughts on AI and machine learning? Have you had any exposure to these technologies in your studies?
- How do you think AI could change your chosen field or profession in the future?
- What additional skills or training do you think would help you to be more successful in your academic and future professional life?
- What format of training do you prefer when you want to learn something new (e.g., face-to-face workshops, online tutorials, etc.)?
- Are there any suggestions you have for the university to better assist students in becoming digitally literate?

Closing (10-15 minutes)

- Summarize key points discussed.
- Thank participants and explain the next steps

Post-Focus Group Actions

Documentation

- Transcribe recordings as soon as possible while the discussion is fresh.
- Prepare reports summarizing the key themes, insights, and quotes (use Template prepared by SCiDEV in English)
- Ensure confidentiality when preparing reports (no direct quotes with names and surnames)

Photography and Social Media

- Select photos for quality and relevance.
- Prepare brief, engaging descriptions for social media and share with University of Shkodra for Publication
- Prepare dissemination report for website as per U2SID Template and share with University of Shkodra for publication on website once all three focus groups are completed





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Annex 4 – Focus group guideline for lecturers

Focus group guideline: Lecturers

Objective:

To gather qualitative insights from university lecturers about their experiences, challenges, and needs related to digital literacies, digital tools, AI, and machine learning in their teaching and research.

Participants:

10-12 lecturers from each university partner, representing diverse faculties and experience levels.

Facilitation Team:

Facilitated by the U2SID project team member in each of 4 partner universities with briefing if needed by SCiDEV team

Duration:

1-2 hours per focus group session.

Preparation:

- Ensure a comfortable venue that promotes open discussion.
- Prepare and test all recording equipment (use smartphone recording options).
- Create an attendance list as per U2SID template that includes consent for photos and recordings.
- Designate roles among the facilitation team (e.g., moderator, note-taker, photographer).
- Make sure participants are aware of what will be done with the collected data and who will have access to it.

During the focus group

Introduction (10 -15 minutes):

- Welcome and introductions by the facilitation team.
- About U2SID project
- About this need assessment exercise and study aim
- Overview of the focus group's objectives and structure.
- Anonymity and confidentiality assurances.

Guided Discussion (40-75 minutes)

- Begin with general questions to ease into the discussion.
- Use open-ended questions to explore lecturers' experiences with digital tools and AI.
- Encourage sharing of both positive experiences and challenges.
- Facilitate the discussion, ensuring all participants have the opportunity to contribute.
- Go in depth in any specific topics of interest for the assessment and participants

Guiding questions:

- a) Digital Literacy and Tool Usage
 - How would you describe your current level of digital literacy, and how does it impact your teaching and research?
 - Can you share some examples of how you integrate digital tools into your curriculum?
 - What challenges have you faced when using digital tools in your teaching or research?





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- b) AI, Machine Learning, and E-Learning Platforms
- Have you had any experience with AI or machine learning in your teaching or research? If so, could you elaborate?
 - How do you perceive the role of AI and machine learning in the future of education and your field specifically?
 - What e-learning platforms are you familiar with, and how do they support your teaching methods?
 - What are the challenges? What are the opportunities?
 - How does your approach to these platforms change from that of students?
- c) Training Preferences and Needs Identification
- What types of professional development or training would enhance your ability to use digital tools and AI in your work?
 - How do you prefer to receive this training (workshops, online courses, peer-to-peer sessions, etc.)?
- d) Final Thoughts and Open Discussion
- Is there anything you feel is essential for the institution to understand about lecturers' needs in terms of digital literacy and tool usage?
 - Are there any additional comments or topics you'd like to discuss that we haven't covered?

Closing (10-15 minutes)

- Summarize key points discussed.
- Thank participants and explain the next steps

Post-Focus Group Actions

Documentation

- Transcribe recordings as soon as possible while the discussion is fresh.
- Prepare reports summarizing the key themes, insights, and quotes (use Template prepared by SCIDEV in English)
- Ensure confidentiality when preparing reports (no direct quotes with names and surnames)

Photography and Social Media

- Select photos for quality and relevance.
- Prepare brief, engaging descriptions for social media and share with University of Shkodra for Publication
- Prepare dissemination report for website as per U2SID Template and share with University of Shkodra for publication on website once all three focus groups are completed





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Annex 5 – Focus group guideline for stakeholders

Focus group guideline: Stakeholders

Objective:

To engage with key stakeholders in a collaborative discussion about enhancing digital literacy skills among academics and students to better prepare them for the demands of the contemporary digital landscape.

Participants:

8-12 participants from the stakeholders database: CSOs, local businesses, media, public authorities

Facilitation Team:

Facilitated by the U2SID project team member in each of 4 partner universities with briefing if needed by SciDEV team

Duration:

1 hour per focus group session.

Preparation:

- Ensure a comfortable venue that promotes open discussion.
- Prepare and test all recording equipment (use smartphone recording options).
- Create an attendance list as per U2SID template that includes consent for photos and recordings.
- Designate roles among the facilitation team (e.g., moderator, note-taker, photographer).
- Make sure participants are aware of what will be done with the collected data and who will have access to it.

Introduction (10 -15 minutes):

- Welcome and introductions by the facilitation team.
- About U2SID project
- About this need assessment exercise and study aim
- Overview of the focus group's objectives and structure.
- Anonymity and confidentiality assurances.

Guided Discussion (40-75 minutes)

- Begin with general questions to ease into the discussion.
- Use open-ended questions to explore lecturers' experiences with digital tools and AI.
- Encourage sharing of both positive experiences and challenges.
- Facilitate the discussion, ensuring all participants have the opportunity to contribute.
- Go in depth in any specific topics of interest for the assessment and participants

Guiding questions:

- What are your initial thoughts when you hear 'digital literacy' in the context of higher education?
- Can you describe the current level of digital literacy you observe among students and faculty within our institution based on your cooperation so far?
- What digital skills do you think are most essential for students and faculty in today's academic environment?
- What are the most significant challenges or barriers that students and faculty face in achieving a satisfactory level of digital literacy?





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- Are you aware of any existing programs or resources aimed at improving digital literacy? How effective have they been?
- How does your institution currently support the development of digital literacy skills? Are there any gaps? Any opportunities for cooperation?
- Would you be willing to join collaborative training on digital literacies with our faculty?
- What strategic partnerships or collaborations could we pursue to enhance our digital literacy initiatives?
- What emerging digital skills should we be preparing our students and faculty to handle in the near future?
- How can we foster a culture of continuous improvement and adaptation regarding digital literacy?
- Any other comments

Closing (10-15 minutes)

- Summarize key points discussed.
- Thank participants and explain the next steps

Post-Focus Group Actions

Documentation

- Transcribe recordings as soon as possible while the discussion is fresh.
- Prepare reports summarizing the key themes, insights, and quotes (use Template prepared by SCiDEV in English)
- Ensure confidentiality when preparing reports (no direct quotes with names and surnames)

Photography and Social Media

- Select photos for quality and relevance.
- Prepare brief, engaging descriptions for social media and share with University of Shkodra for Publication
- Prepare dissemination report for website as per U2SID Template and share with University of Shkodra for publication on website once all three focus groups are completed





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University to Society Collaborations for Inclusive Digital Transformation in the Western Balkans

Report

NEEDS ASSESSMENT SURVEY OF DIGITAL LITERACIES IN U2SID PARTNER MEDITERRANEAN UNIVERSITY OF ALBANIA





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This report is prepared by the Center Science and Innovation for Development (SCiDEV)

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Tirana, Albania, January 2024

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PROJECT SNAPSHOT

Project Title	University to society collaborations for inclusive digital transformation in the Western Balkans
Project's acronym	U2SID
Webpage	[insert project website]
Project's budget	EUR 398,650.00
Funded by	Erasmus+ Programme Capacity building in Higher Education
Project number	101083131
Project duration	24 months
Project Coordinator	University of Shkodra Luigj Gurakuqi
Countries involved	Albania; Serbia; Montenegro; Italy
Project partners	<p>University of Shkodra Luigj Gurakuqi</p> <p>University „Fan S. Noli” of Korca</p> <p>Mediterranean University of Albania</p> <p>Center Science and Innovation for Development</p> <p>Center for Comparative and International Studies</p> <p>National Agency for Scientific Research and Innovation</p> <p>University of Montenegro</p> <p>University of Belgrade</p> <p>University of Salento</p>
Aim and objective	<p>Project's aim: To foster inclusive digital transformation in the Western Balkans through increased collaboration between universities with other stakeholders such as businesses, policy makers, civil society, and media.</p> <p><i>The specific objectives of U2SID are:</i></p> <p>SO1 – To strengthen digital competences of teachers, students, and professionals through the development of a Digital Literacies Acceleration Programme as a collaborative programme among universities on one side and businesses, civil society, local decision makers and media on the other.</p> <p>SO2 – To improve innovative teaching methods through piloting a Digital Transformation Challenge for students as a project-based and solution-oriented learning based on mentoring, coaching and placement at businesses, civil society, local decision makers and media.</p> <p>SO3 – To raise awareness on the importance of inclusive digitalisation by including vulnerable target groups in the digitalization process.</p>





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ABBREVIATIONS

CCIS	Center for Comparative and International Studies (Qendra për Studime Krahasuese dhe Ndërkombëtare)
EACEA	European Union or European Education and Culture Executive Agency
EU	European Union
NASRI	National Agency for Scientific Research and Innovation (Agjencia Kombëtare e Kërkimit Shkencor dhe Inovacionit)
PSC	Project Steering Committee
SciDEV	Center Science and Innovation for Development (Qendra Shkencë dhe Inovacion për Zhvillim)
U2SID	University to society collaborations for inclusive digital transformation in the Western Balkans
UCG	University of Montenegro (Univerzitet Crne Gore)
UMSH	Mediterranean University of Albania (Universiteti Mesdhetar i Shqipërisë)
UNIBELGRADE	University of Belgrade (Univerzitet u Beogradu)
UNIKO	University „Fan S. Noli” of Korca (Universiteti i Korçës "Fan S. Noli")
UNISALENTO	University of Salento (Università del Salento)
UNISHK	University of Shkodra Luigj Gurakuqi (Universiteti i Shkodrës “Luigj Gurakuqi”)
WP	Work Package





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I. INTRODUCTION

The U2SID project aims to drive inclusive digital transformation in higher education in Western Balkans by fostering collaboration between universities, businesses, policymakers, civil society, and media. It emphasizes safe digitalization through enhancing awareness and capacity in privacy, data protection, and digital literacies, thus promoting digital rights. The aim of the project is to foster inclusive digital transformation in the Western Balkans through increased collaboration between universities with other stakeholders such as businesses, policy makers, civil society, and media.

The U2SID project's specific objectives encompass three key areas. Firstly, it focuses on enhancing digital competencies among teachers, students, and professionals via a Digital Literacies Acceleration Programme. This program promotes collaboration between universities and various stakeholders like businesses, civil society, and media. Secondly, it aims to advance innovative teaching methods through the Digital Transformation Challenge, offering project-based, solution-oriented learning with mentorship and professional placements. Lastly, it emphasizes raising awareness about inclusive digitalization, particularly targeting and including vulnerable groups in the digitalization process.

In this light, the central objective of this research exercise is to evaluate the current state of digital literacies among two primary groups within the academic sphere: lecturers and students in 4 partner universities of the U2SID project, namely: University of Shkodra “Luigj Gurakuqi”, University of Korça “Fan S. Noli”, Mediterranean University of Albania and University of Montenegro. The study recognizes the increasing role those digital competencies play in both delivering and accessing higher education. By assessing the needs, the study intends to identify gaps in knowledge, skills, and infrastructure that may be hindering the effective use of digital tools and resources in teaching and learning environments in the universities involved in this project in Albania and Montenegro.

Furthermore, the study seeks to incorporate diverse perspectives by engaging with stakeholders who are directly or indirectly impacted by the digital literacies of lecturers and students. These stakeholders may include administrative staff, IT personnel, policy makers, and employers. The input from these groups will provide a multi-dimensional understanding of digital literacies needs, expectations, and the potential barriers to implementing digital literacies programs.

II. METHODOLOGY

The methodology for this need assessment exercise on digital literacies at university level is crafted to facilitate an understanding of the subject within academic contexts of partner universities involved in the project and to inform with evidence the next activities to be implemented by the project partners such as the Digital Literacies Accelerator Programme and Digital Transformation Challenge. This approach embraces both quantitative and qualitative data collection methods, harmonizing them to draw a reliable picture of the digital literacies needs and gaps in these the academic context of Mediterranean University of Albania. The study was conducted in November and December 2023 and the data analysis in January 2024.





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Central to the quantitative dimension of our research are online questionnaires with a total of 291 students surveyed and 38 lecturers. These instruments are designed to quantitatively assess lecturers' and students' self-reported competencies in digital literacies, their habitual use of digital resources, their preferences for certain technologies, and their perceived needs for further support and development. Ensuring a representative sample in each partner university is important; therefore, the study encompasses a diverse cross-section of departments, faculties, and educational levels both Bachelor and Masters. Subsequent statistical analyses scrutinize this quantitative information to identify prevalent patterns and trends, which provide insights for recommendations for the next activities to be implemented by the project partners.

Parallel to this, the qualitative component through structured focus group discussions delves into the more subjective dimensions of digital literacies. These sessions are planned to reveal the attitudes, personal experiences, and the various contextual factors that shape individuals' engagement with digital tools and resources. Discussion guides, prepared in advance and based on literature reviews, steered conversations to meaningful depths. The discussions were then transcribed in detailed focus group reports by each partner university. 3 focus groups were organized by with lecturers, students, and stakeholders, with a total of 36 participants.

The integration of quantitative and qualitative data is necessary for the cross-verifying data points but also minimizes the biases that any single method might introduce. The findings of the need assessment are relevant for participating partner universities and cannot be generalized to entire academic contexts in Albania and Montenegro.

The online questionnaire and focus group guidelines, used this “Digital literacies” definition:

- Basic Computer Skills: Using an operating system, managing files, and understanding basic hardware.
- Internet Navigation: Using search engines, evaluating online sources, and understanding internet safety.
- Productivity Software: Proficiency in word processing, spreadsheets, and presentation software.
- Communication Tools: Email, instant messaging, video conferencing, and collaboration platforms.
- Digital Creation: Basic photo editing, video production, or website creation.
- Information Literacy: Finding, evaluating, using, and citing digital information.
- Cybersecurity Awareness: Understanding of personal data protection, password security, and awareness of phishing scams.
- Social Media Literacy: Creating content, understanding digital footprints, and privacy settings.
- Data Literacy: Understanding of data collection, analysis, and interpretation.
- E-Learning Platforms: Navigating online learning systems and digital libraries.





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III. DATA ANALYSIS AND FINDINGS

The study investigates digital literacies among students and lecturers at Mediterranean University of Albania. Involving 291 students and 38 lecturers, it utilized an online survey method. The margin of error for the student's study is 5.5%, meaning that the confidence interval of every result is $\pm 5.5\%$.

Data Analyses are conducted using IBM SPSS. Data for students are weighted in order to be representative of the total students of the university. This was done so the contribution of male and female respondents was proportional to the real population of the total students of the university.

1. FINDINGS

This section of the report is structured around three primary components: firstly, it presents both quantitative and qualitative findings related to students; secondly, it delves into similar types of data concerning lecturers; and thirdly, it incorporates qualitative insights obtained from focus groups with various stakeholders.

2.1 Findings regarding students

The results from Mediterranean University of Albania show that half of the students lack of ability on the Digital Creation (Website creation). About 46% of the students declare to have “no proficiency” or “limited proficiency” in the Website Creation. Almost 35% of the Mediterranean Students do not have basic Computer Skills like Understanding Basic Software. Also, about 34% of the respondents say that they have “no proficiency” or “limited proficiency” in Presentation Software, Proficiency in Spreadsheets, and Video production.

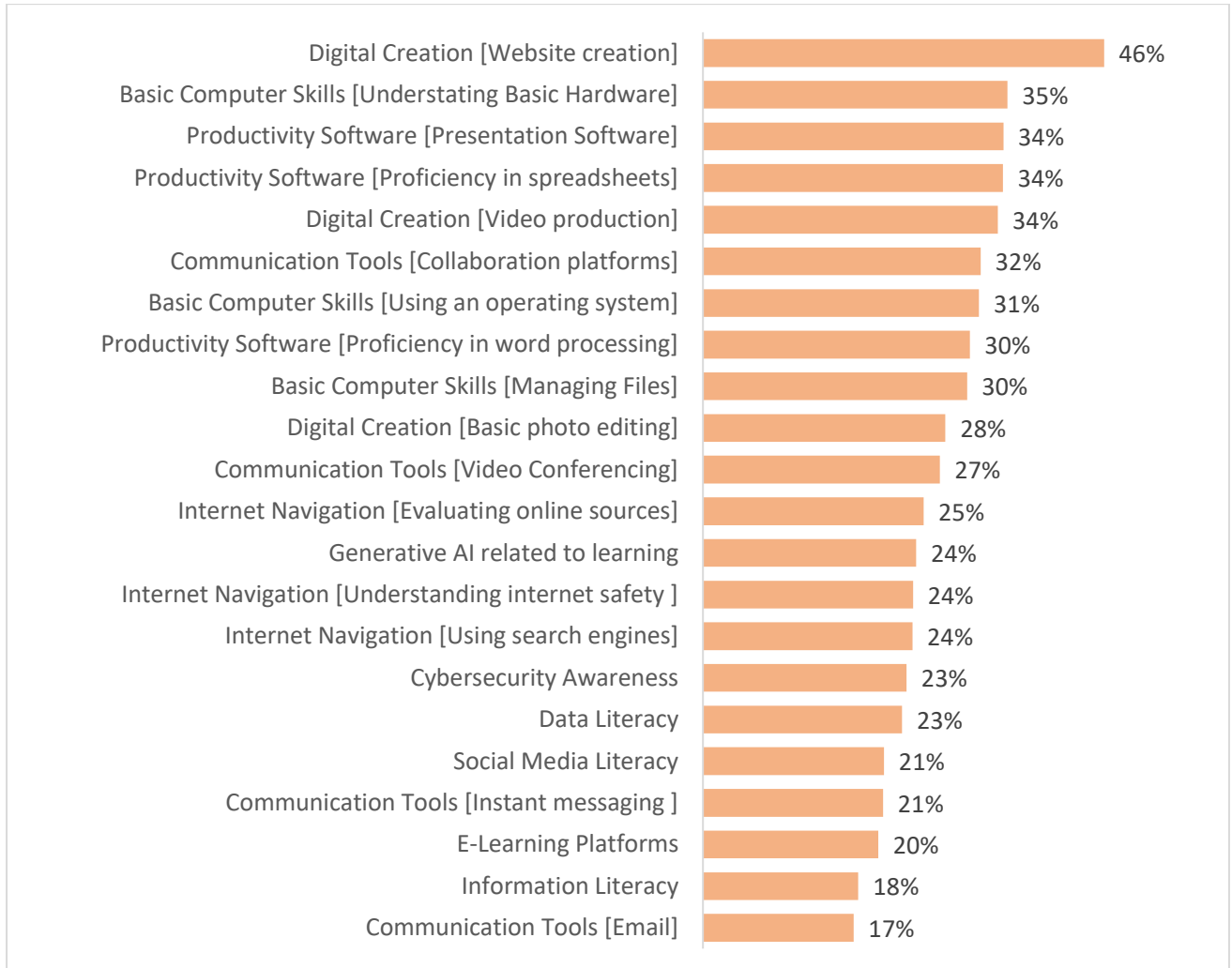
On the other hand, fewer students declare to have “no proficiency” or “limited proficiency” in Email as a communication tool (only 17%), in Information Literacy (18%), in E-Learning Platforms (20%), on the Instant Messaging as a communication tool (21%).

The data used for the total students of the Mediterranean University of Albania are weighted so the results would be representative of the whole students. The margin of error in this case is equal to 5.5%, so the interval of confidence is $\pm 5.5\%$ for all the results presented in this paper.

Focus Group results show that students find essential for their studies digital tools like Zoom, Microsoft Teams, and Google Meetings. Also, they mention some specific programs related to their field of study: Java, C++, Python, JavaScript, React, Angular, PHP (for programming studies); R, SPSS, MatLab, and SAS (Statistical analysis software). Apart from what programs students think they need for their studies, they stated that they have used Google Classroom, G-Suite, and Udemy (educational platforms). Social media networks are used by most of the students as a way of connecting and sharing experiences and achievements.

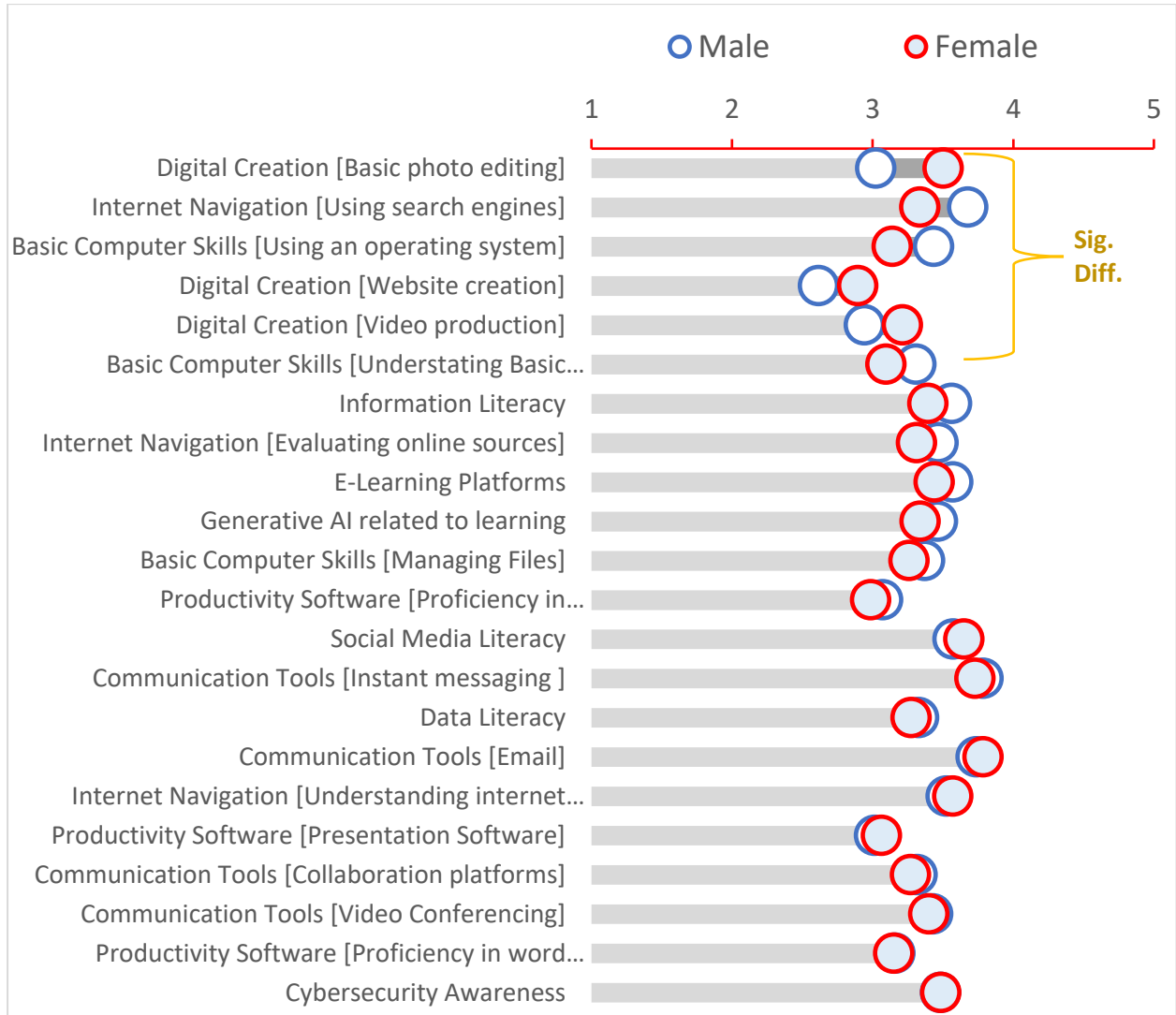


Figure 1: Students - Share of students who have "no proficiency" or "limited proficiency" in Digital Literacies



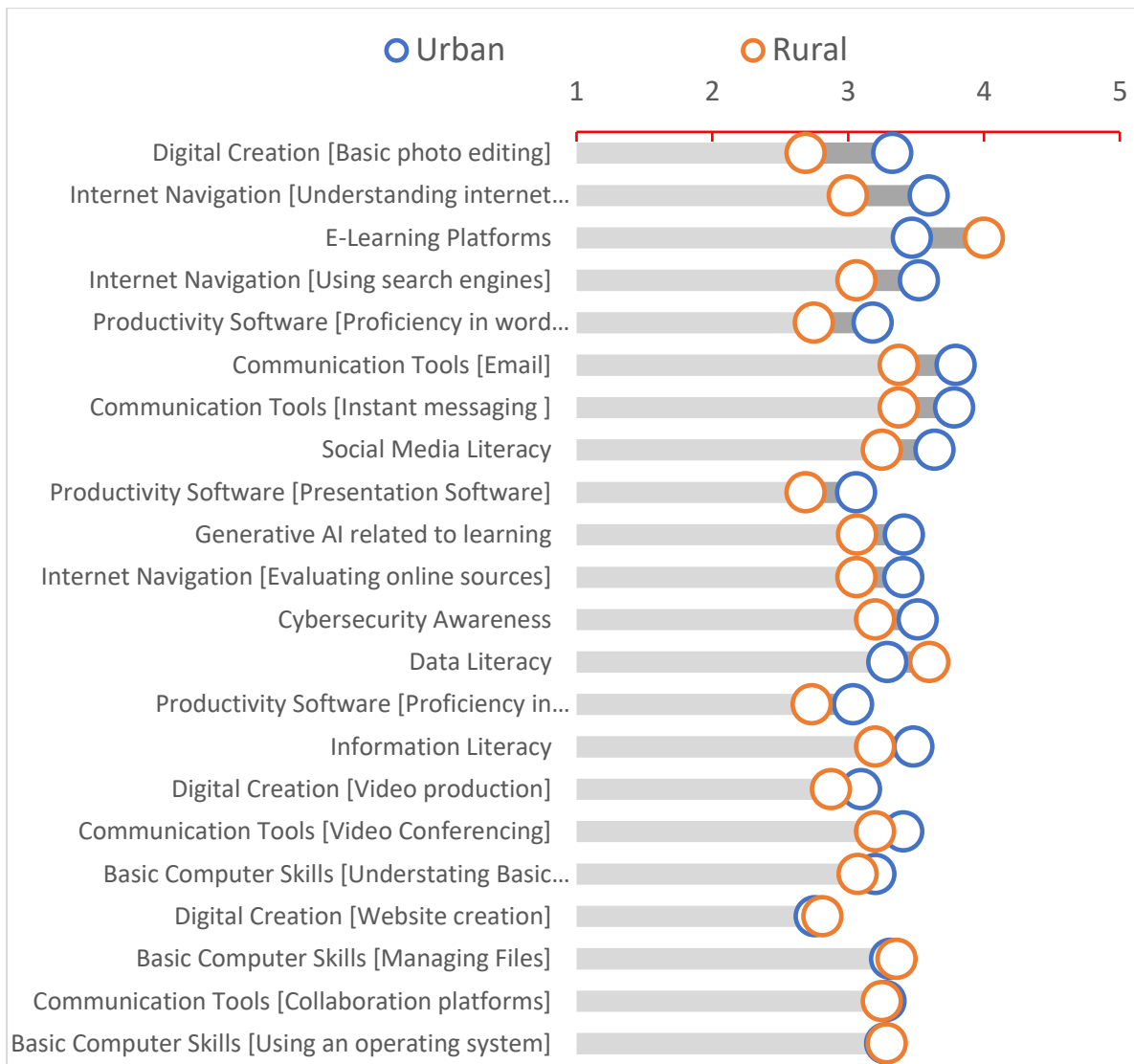
When we check if there are significant differences related to the gender of the students, it can be shown that females tend to have more knowledge of the Digital Creation like Basic Photo Editing, Website creation, and Video Production. On the other hand, males tend to have more knowledge of Internet Navigation and Basic Computer Skills like Using an Operating System and Understanding Basic Hardware. On the other indicators, there is no significant difference between males and females.

Figure 2: Students - Level of knowledge on Digital Literacies by gender



Results by Urbanity show that respondents from urban areas tend to have a higher level of knowledge on almost all the indicators used to measure Digital Literacies compared to respondents from rural areas. The other is true only for the level of knowledge on E-Learning Platforms and Data Literacies. We should be careful with the interpretation of the results because due to the low number of respondents living in rural areas, their results are only indicative. But, as it can be seen, overall respondents from rural areas tend to have lower knowledge of Digital Literacy. The largest difference is shown in Digital Creation (Basic Photo Editing) and Internet Navigation (Understanding Internet Safety).

Figure 3: Students - Level of knowledge on Digital Literacies by Urbanity

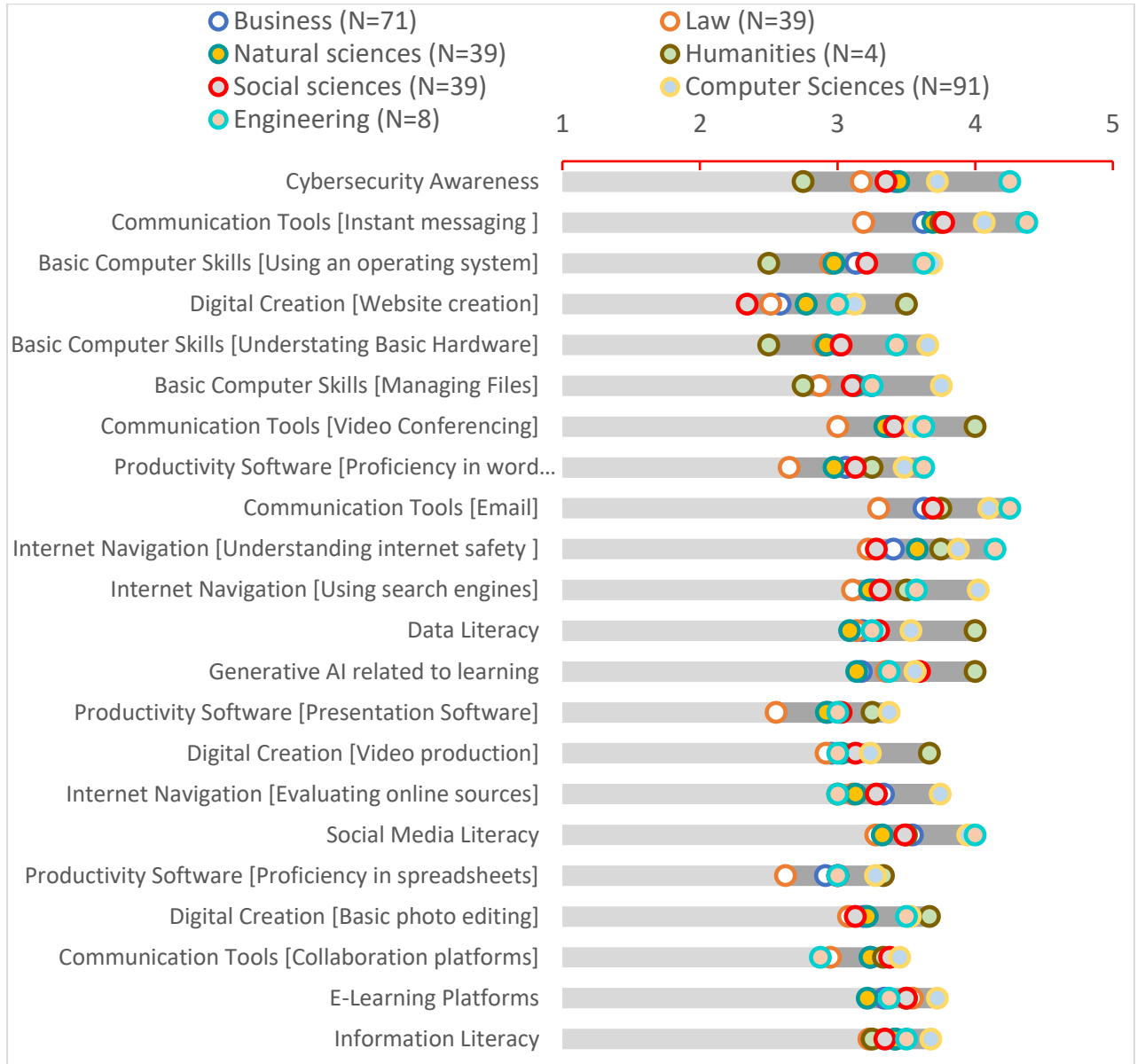


Comparing the data for different disciplines of study results students who study Computer Science and Engineering declare that they have a higher level of knowledge on Digital Literacies compared to students who study other disciplines.

Students who study Law declare to have a lower level of knowledge of Digital Literacy.

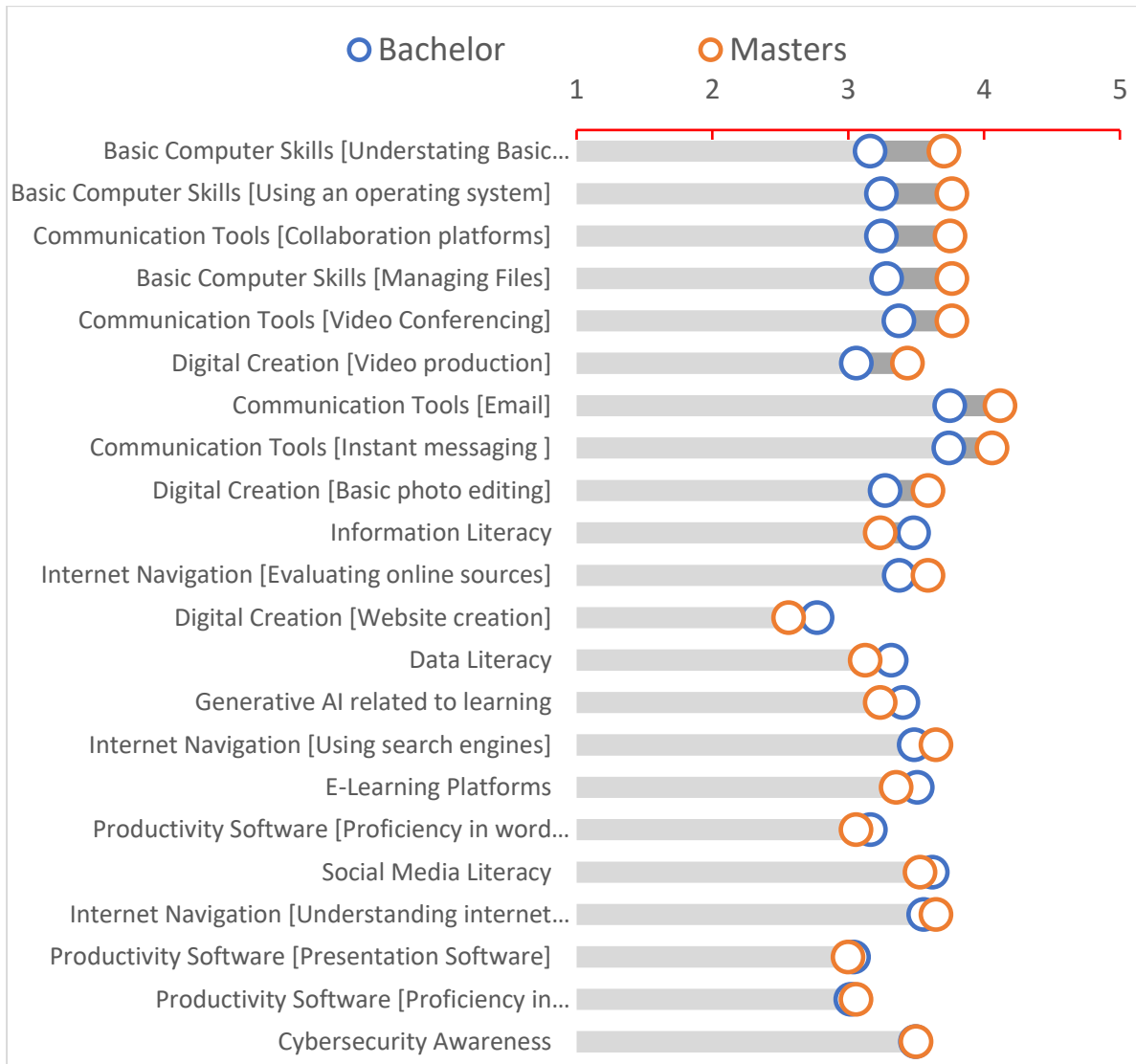
Results for Engineering and Humanities Students are only indicative, not statistically significant.

Figure 4: Students - Level of knowledge on Digital Literacies by discipline of studies



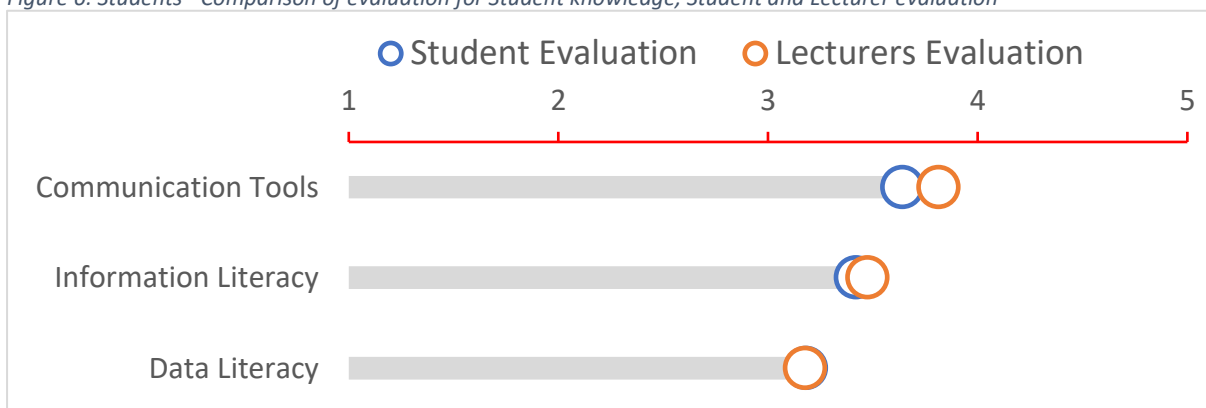
As expected, results by the level of degree show that Master Students tend to have a higher level of knowledge on most of the Digital Literacies Indicators. The largest difference is shown in Basic Computer Skills.

Figure 5: Students - Level of knowledge on Digital Literacies by degree



To capture different perspectives on the evaluation of knowledge in Digital Literacies, in this study we have asked 3 similar questions to lecturers for students and the opposite. As can be seen in the graph below, there is no significant difference in how students evaluate themselves and how lecturers evaluate students, but it can be said that lecturers tend to think that students have a higher level of knowledge in Digital literacies.

Figure 6: Students - Comparison of evaluation for Student knowledge, Student and Lecturer evaluation



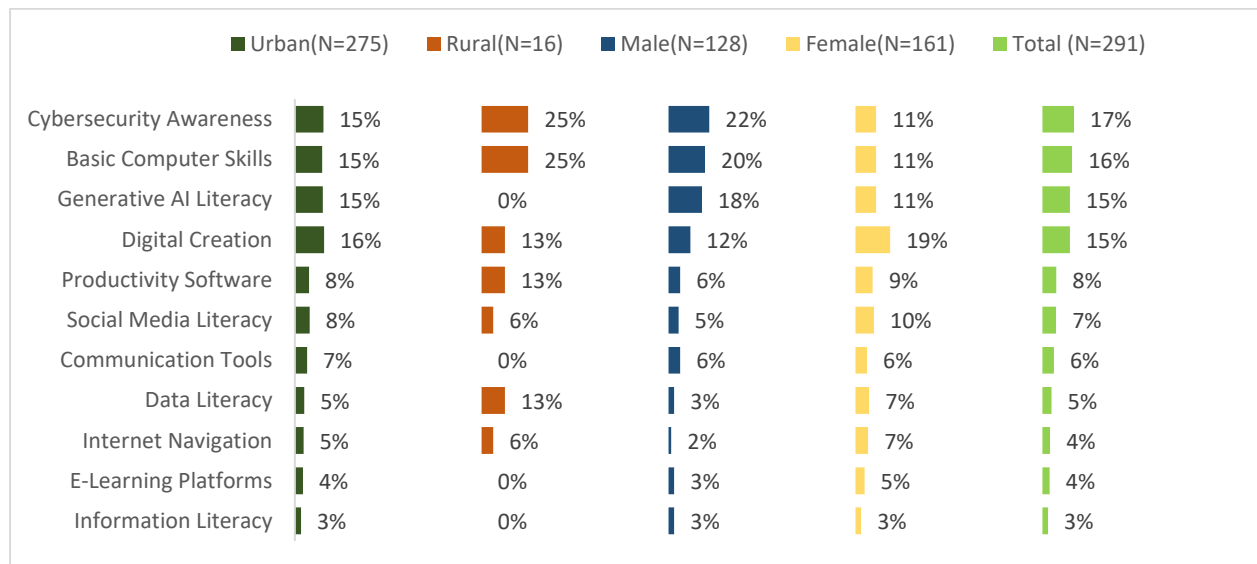


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When students were asked what specific Digital literacies they were interested in improving, 17% chose Cybersecurity awareness, 16% Basic computer skills, and 15% Generative AI Literacy and Digital Creation.

There are some differences between males and females, where females are more interested in improving Digital Creation, while men are interested more in Cybersecurity Awareness, Basic computer skills, and Generative AI literacy. There are some differences related to the area where students live. Students living in rural areas are most interested in improving Cybersecurity Awareness Basic Computer Skills and Data Literacy. For the total are used weighted data so the results can be representative. Results for students from rural areas are only indicative, not significant.

Figure 7: Students - Skills that students are interested in improving, by urbanity and gender



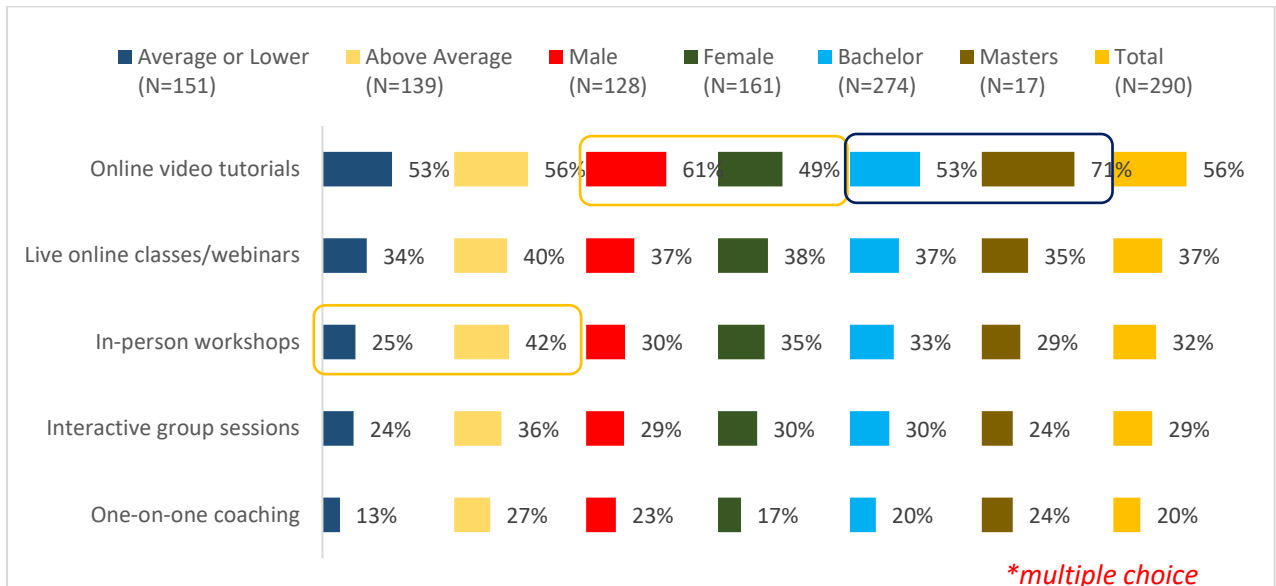
When asked about preferred formats of Digital Literacies Training, more than half of the respondents want Online Video Tutorials (56%). For Online Video Tutorials we have the largest differences between males and females, and bachelor vs master students. Respectively, 61% of male students prefer Online Video Tutorials compared to 49% of females. Also, 71% of the master students prefer online video tutorials compared to 53% of bachelor students.

To measure what students with a lower level of overall Digital Literacies knowledge prefer, we have created an indicator where students with an average or lower level of knowledge overall are separated from others with a higher level of knowledge. About 42% of the students with a higher level of Digital Literacy knowledge prefer In-person Workshops, compared to only 25% of other students.

Different from the results of the quantitative approach, Students who participated in Focus Group discussions suggest that face-to-face training is more beneficial for them since it encourages active participation.



Figure 8: Students - Preferred formats of Digital Literacies, by degree, gender, and overall level of Digital Literacies knowledge

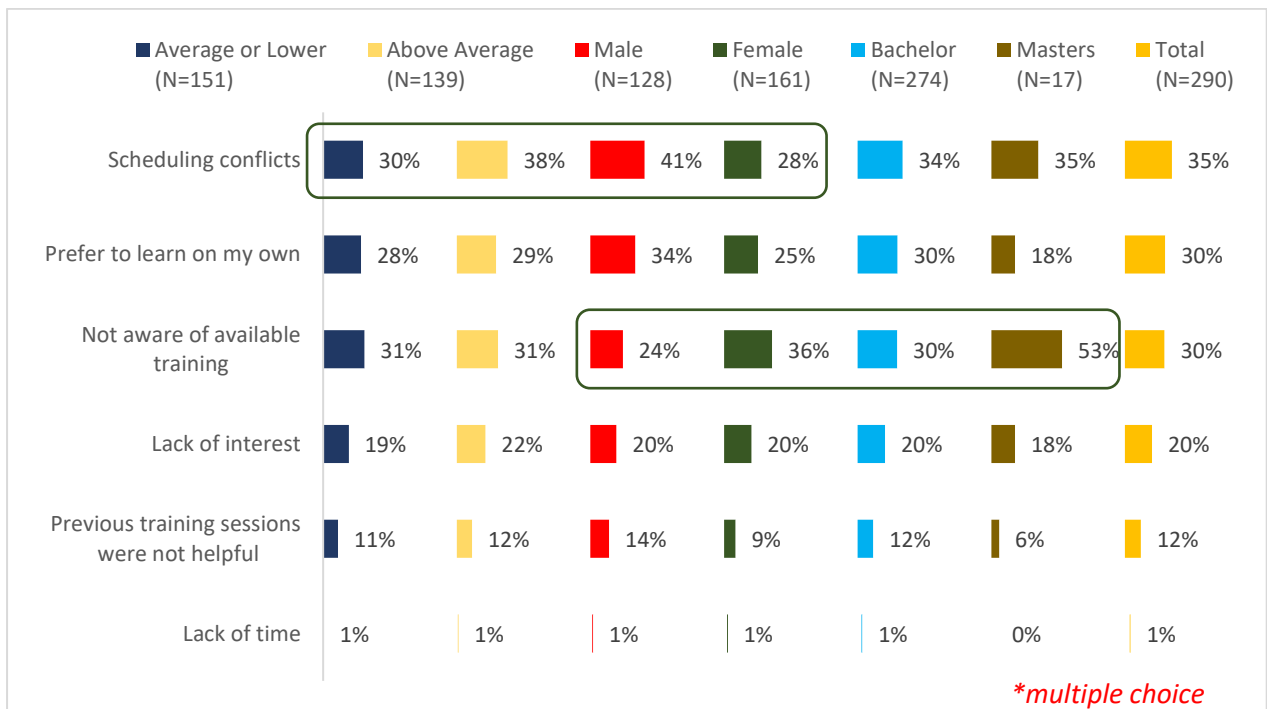


Students were asked about barriers to attending the training sessions. Scheduling conflicts were the main problem for more than one-third (35%) of the students. Next was that 30% of the students wanted to learn by themselves, and 30% were not aware of any available training.

The largest difference between students with higher levels of overall knowledge and others in Scheduling conflicts (30% for the average or lower knowledge students and 38% for others with higher knowledge). Also, there is a large difference for males and females, respectively 41% and 28%.

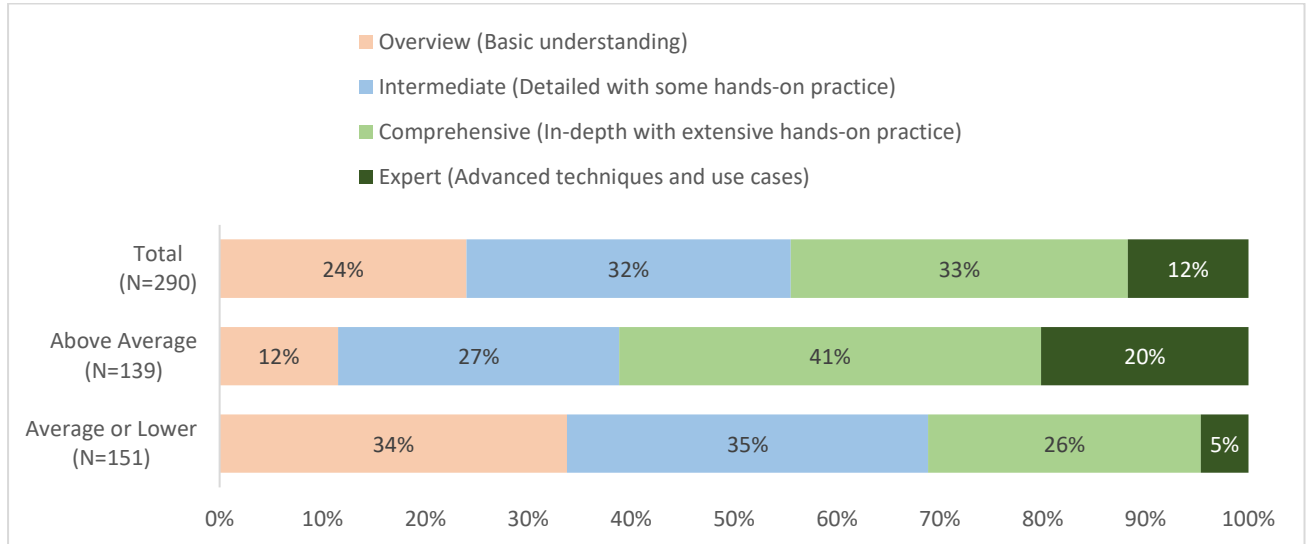
More females than males are not aware of available training (36% vs 24%).

Figure 9: Students - Barriers to attending training sessions by gender, degree, and the overall level of Digital Literacies Knowledge



When asked about the preferred format of Digital Literacy training, 12% wanted expert-level training. More students with higher overall digital literacy knowledge prefer expert training 20% vs 5% for others.

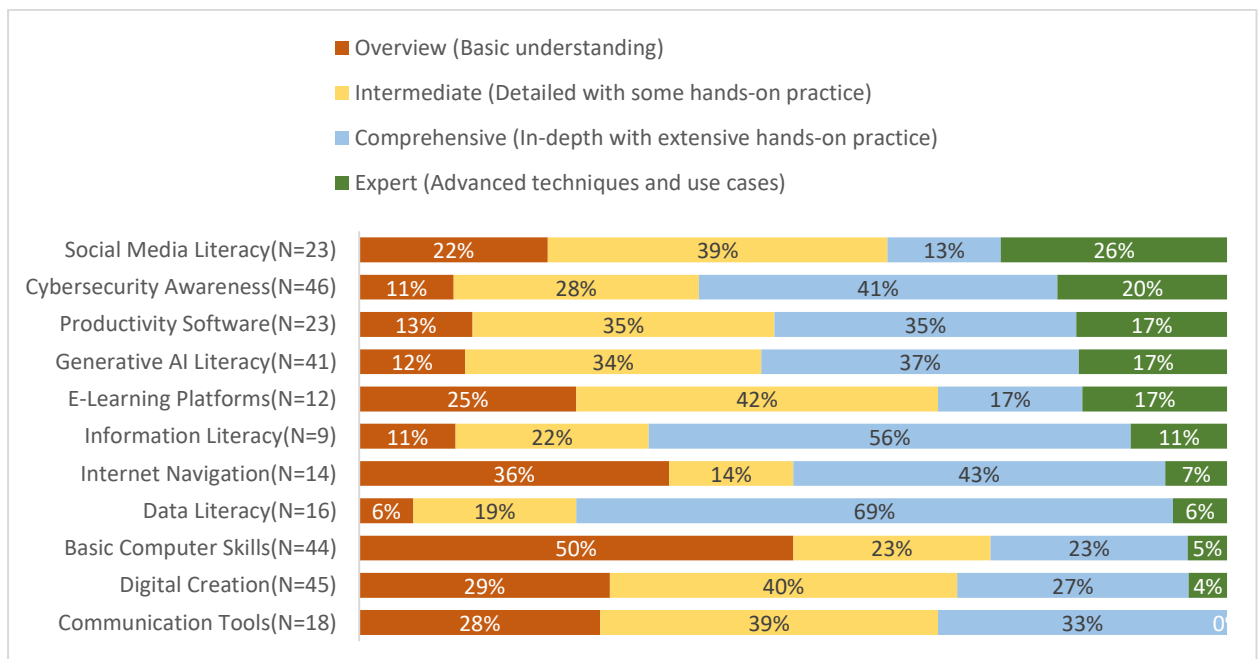
Figure 10: Students - The preferred format of Digital Literacies training by the overall level of Digital Literacies Knowledge



One in four students who want Social Media Literacy training likes to take advanced training to learn advanced techniques and use cases. Half of the students who want to learn basic computer skills want only an overview.

About 75% of the students who are interested in Data Literacy training, want to take an Expert training (6%) and 69% a comprehensive training.

Figure 11: Students - Level of desired training by Digital Literacies skills that students are most interested in improving

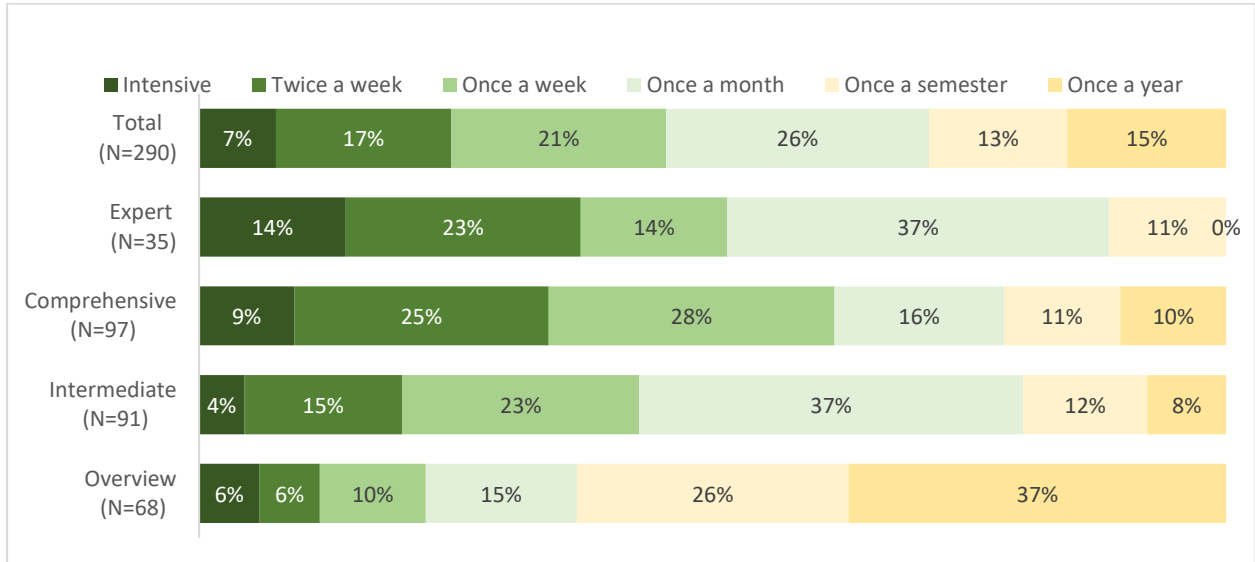




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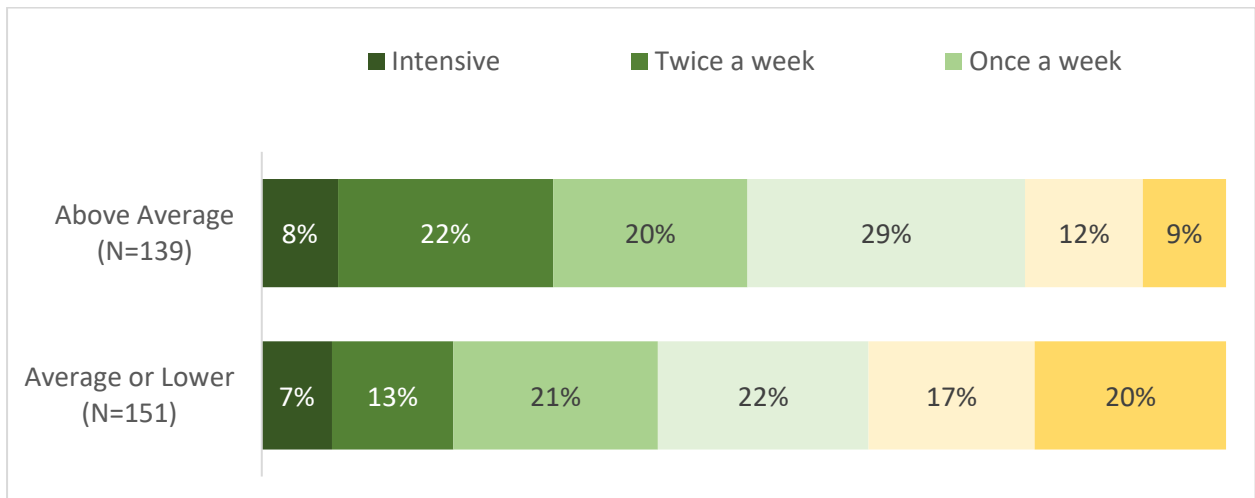
About 7% of the students are interested in taking an intensive course, while 17% prefer twice a week, and 21% once a week. Students who prefer Expert training want it to be more intensive compared to others.

Figure 12: Students - Frequency of the training sessions by desired training by students



Students with more overall level of Digital literacies knowledge prefer to take more intensive courses compared to others with a lower level of knowledge.

Figure 13: Students - Frequency of the training sessions by the overall level of Digital Literacies Knowledge



Results from the qualitative approach show that students prefer to be part of the Digital Literacies trainings. Some students are concerned about the ethical implications of AI and machine learning, such as issues related to bias, privacy, and the potential impact on employment.

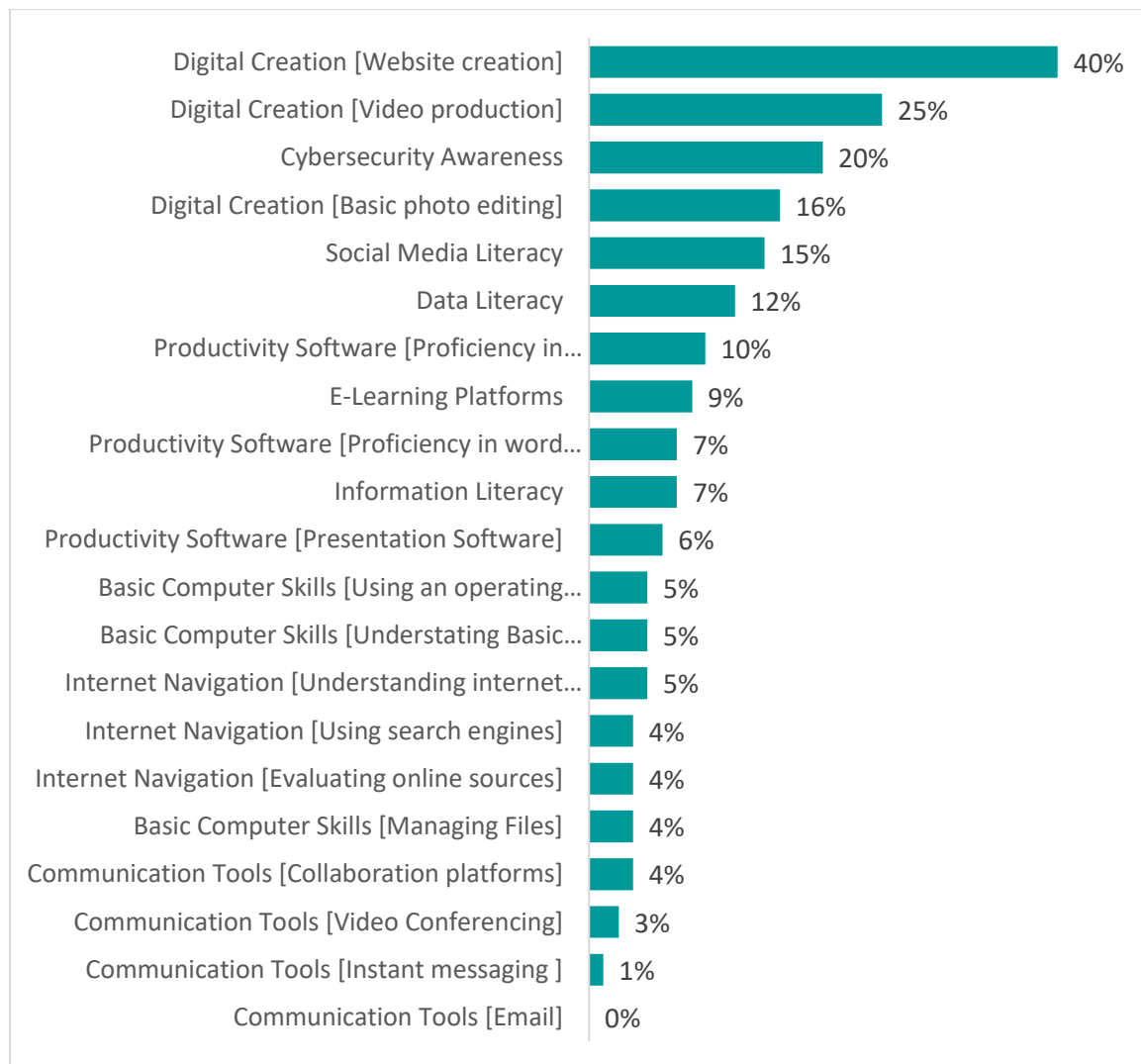


2.2 Findings regarding lecturers

Results for Lectures show that they have less knowledge of Digital Creation and Video Production, respectively 40% declare to have “No Proficiency” or “Limited Proficiency” in Website Creation and 25% in Video Production. Furthermore, more than 10% of the lecture respondents declare they have “No proficiency” or “Limited Proficiency” in Cybersecurity Awareness (20%), Basic Photo Editing (16%), Social Media Literacy (15%), and Data Literacy (12%).

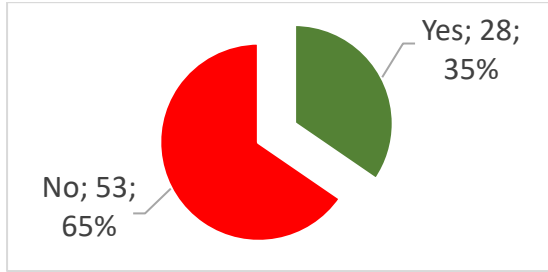
Lecturers who were part of the Focus Group, say that they do not have a high level of knowledge on the usage of Digital tools, especially when compared to professors of foreign universities. The largest gap according to them is in the usage of ChatGPT.

Figure 14: Lecturers - Share of lecturers who have “no proficiency” or “limited proficiency” in Digital Literacies.



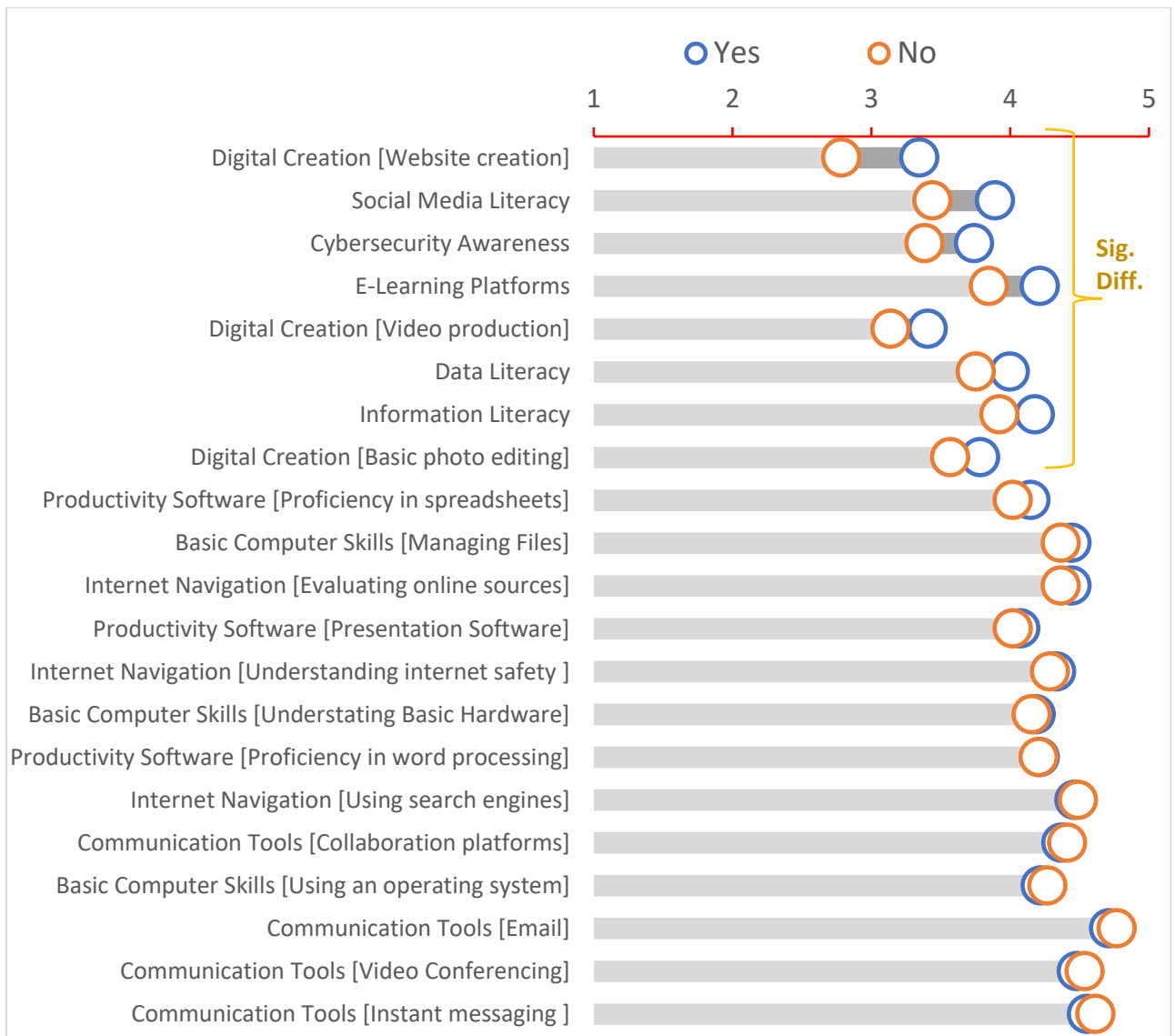
About 35% of the Lectures at the Mediterranean University of Albania have participated in trainings related to digital literacies in the past years.

Figure 15: Lecturers: Participation in training in last years.



Results show that lecturers who have participated in at least one training in the last years related to digital literacies tend to have a higher level of knowledge on almost all the indicators used to measure the level of knowledge on digital literacies. There is a significant difference in the knowledge of Website Creation, Social Media Literacy, Cybersecurity Awareness, E-Learning Platforms, Video Production, Data Literacy, Information Literacy, and Basic Photo Editing.

Figure 16: Lecturer: Level of knowledge on Digital Literacies by participation in previous training



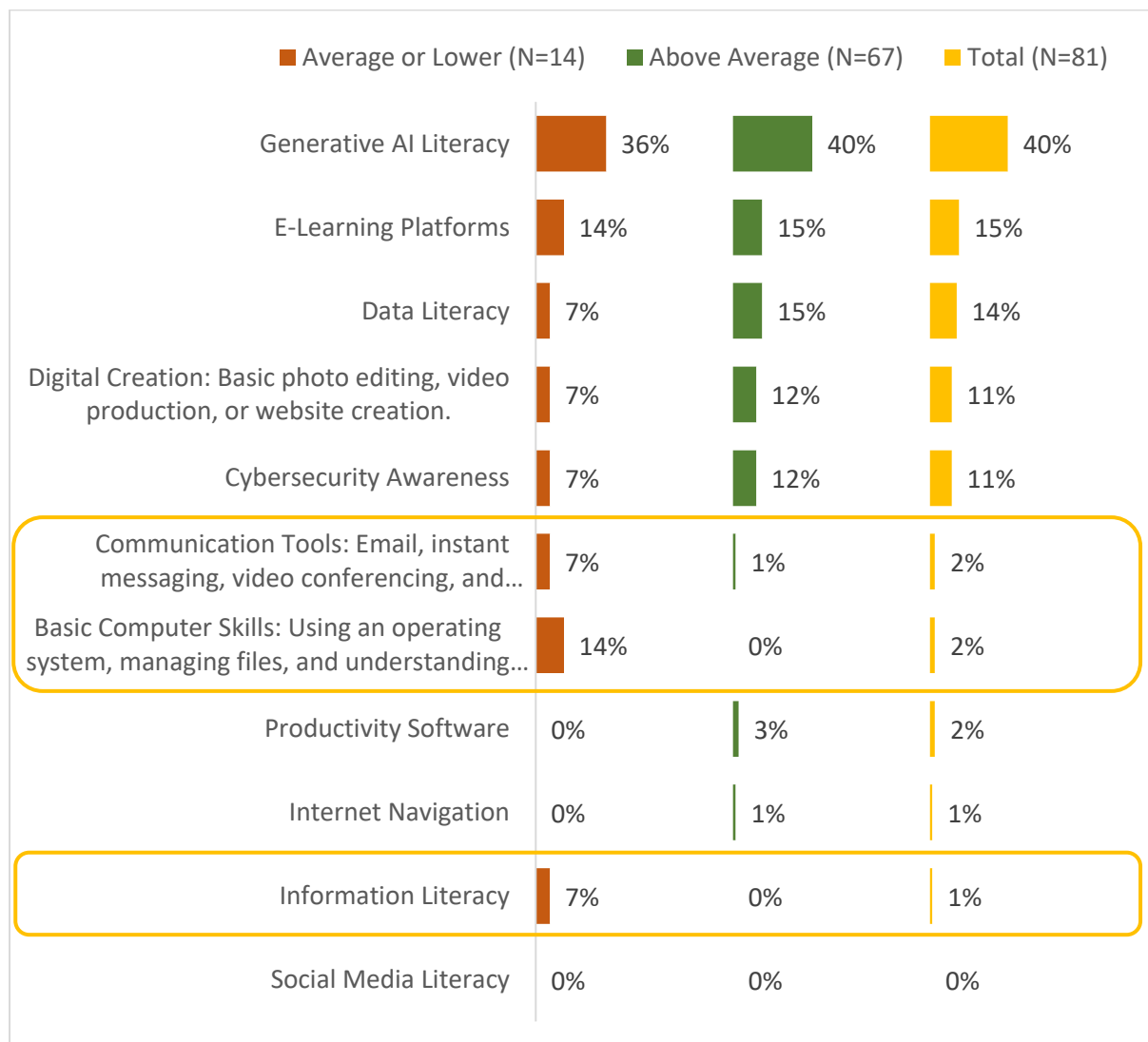


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To measure what lectures need to be trained, it is created a new variable named knowledge, shows if a respondent has knowledge (for all the indicators) below the average or higher. When respondents had to choose the one most important skill they want to improve, 40% chose Generative AI Literacy (as ChatGPT, Claude; accessing Generative AI and understanding its capabilities). Results show that the second and third Digital Literacy they are more interested in improving are E-Learning Platforms (15%), and Data Literacy (14%).

Disaggregation by the level of Knowledge on Digital Literacies shows that those who have a lower level of knowledge (Average or lower) are more interested compared to others with a higher level of knowledge in learning skills like Communication Tools (Email, Instant Messaging, video conferencing, and Collaborating Platforms), Basic Computer Skills (Using operating system, managing files and understanding basic hardware, and in Information Literacy. On the other hand, lecturers with a higher level of knowledge of Digital Literacies are more interested in the more advanced Digital Skills, like Data Literacy, Cybersecurity Awareness, and Digital Creation (Photo Editing, Video Production, and Website Creation).

Figure 17: Lecturers: Digital Literacies skills that lecturers want to improve the most by the Digital Literacies Knowledge level





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Another question in the survey is about what respondents are interested in improving but they can choose more than one answer and not only the one they are most interested in.

Again, as before more than half of the respondents are interested in improving their skills in Generative AI Literacy (59% overall, 43% for those with average or lower level of knowledge, and 63% for those with a higher level of knowledge on Digital Literacies). Almost half of the Lecturers want to improve their skills in Cybersecurity Awareness (48% overall). About 40% of the lecturers want to improve skills in E-Learning Platforms and Data Literacy.

Only 1% of lecturers with above-average knowledge of Digital Literacies are interested in improving their skills in Basic Computer Skills (Using Operating Systems, Managing Files, and Understanding Basic Hardware), compared to 29% of the lecturers with a lower level of knowledge of Digital Literacies.

Figure 18: Digital Literacies skills that lecturers want to improve by Digital Literacies Knowledge level

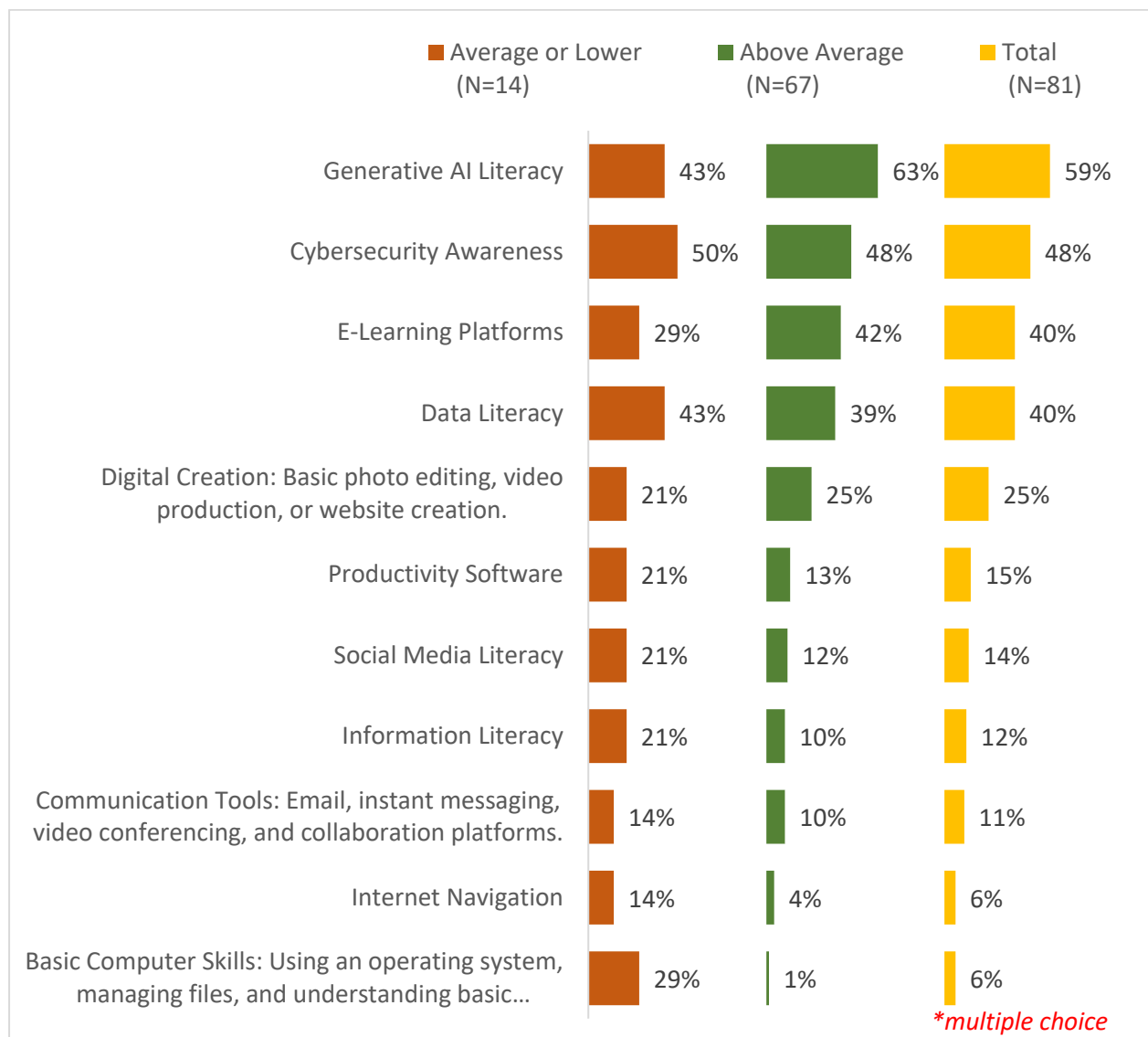
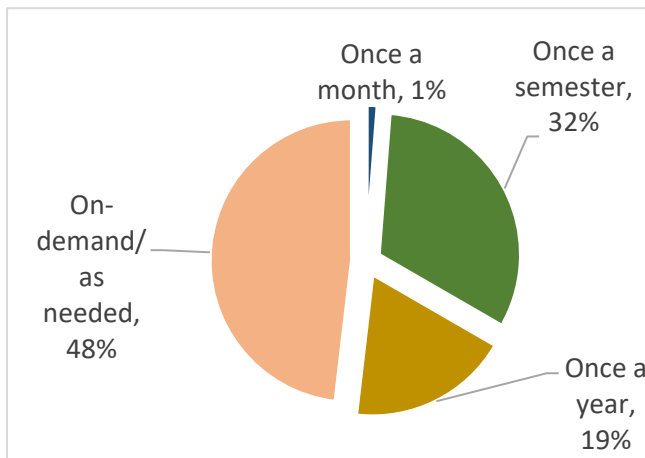


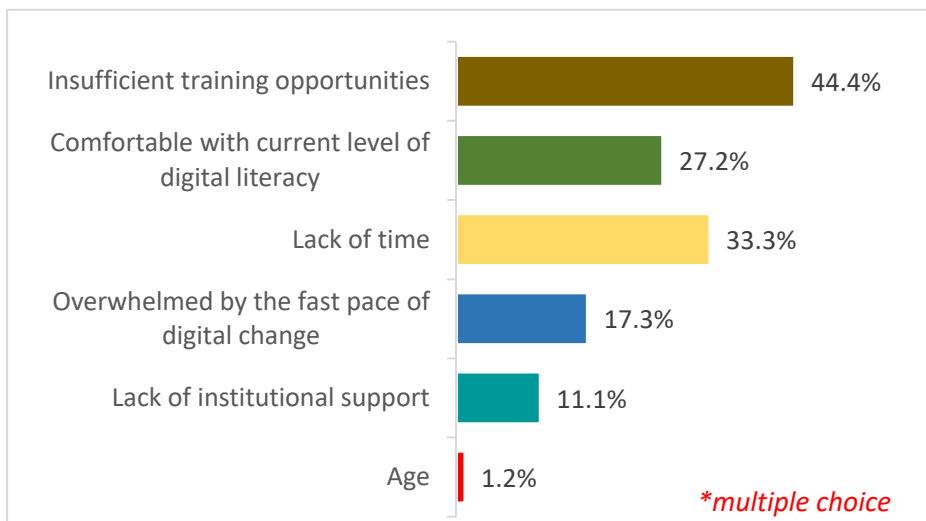
Figure 19: Lectures: Frequency of desired training



Almost half of the lectures at the Mediterranean University of Tirana (48%) declare that they would like to receive Digital Literacy training “On-demand/As needed”. One-third of the respondents say they want those kinds of trainings once a semester, one-fifth once a year, and only 1% want them once a month.

When asked about barriers to improving their Digital literacies skills, 44% said that there are Insufficient Training Opportunities, 33% “Lack of time”, 17% “Overwhelmed by the fast pace of digital change, and 11% “Lack of Institutional Support”. About 27% of the respondents declare that they are comfortable with their current level of digital literacies.

Figure 20: Lectures: Barriers to attending training sessions

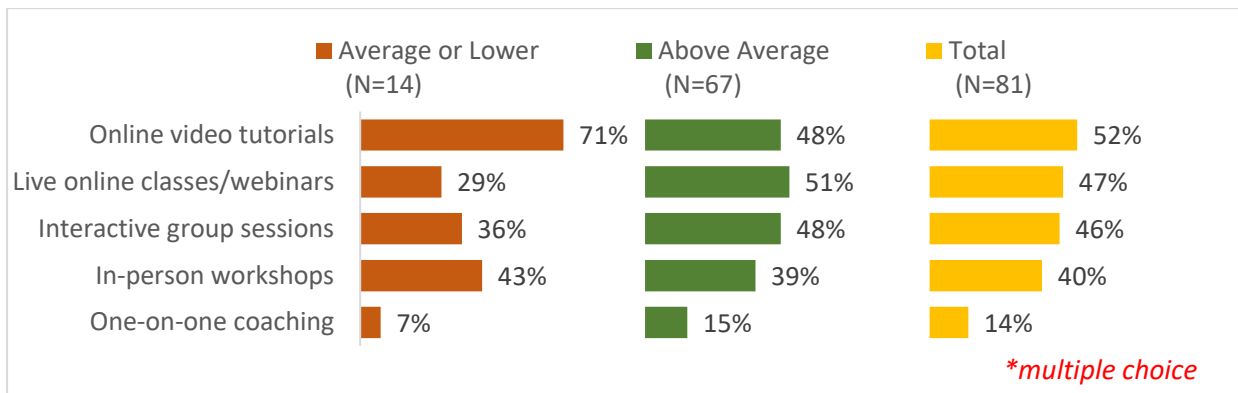


Preferred Training

Half of the respondents prefer Online Video Tutorials training related to Digital Literacies. Here is a large difference between lectures with less knowledge about Digital Literacies and those with a higher level of knowledge. About 71% of lecturers who have an average or lower level of knowledge in Digital Literacies would prefer to be part of Online Video Tutorials, compared to 48% of those with a higher level of knowledge.

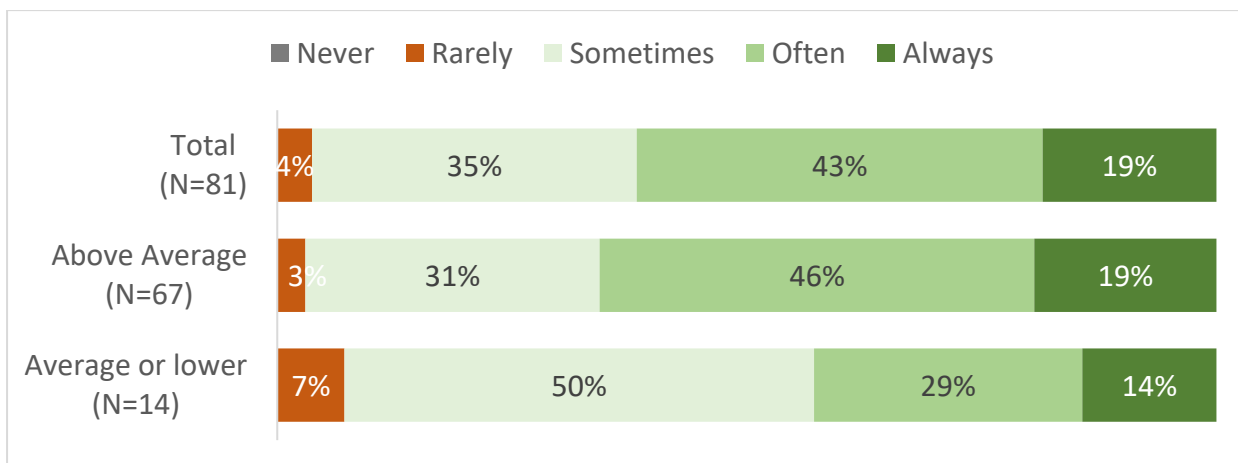
More than half (51%) of the respondents with above-average Digital Literacies Knowledge would prefer to be part of Live online classes/webinars, compared to only 29% of other lectures with lower levels of knowledge. Results coming from focus groups support the data of the quantitative study. According to professors’ part of the focus group a combination of online with face-to-face training is preferred.

Figure 21: Lectures - Proffered formats of Digital Literacies training



When Lecturers were asked how often they use digital tools in their teaching, 19% declared to always use them (19% of those with a higher level of knowledge on Digital Literacies compared to only 14% of others). About 7% of the lecturers with an average or lower level of overall knowledge on Digital Literacies declare to rarely use digital tools in their teaching compared to 3% of those with a higher level of knowledge.

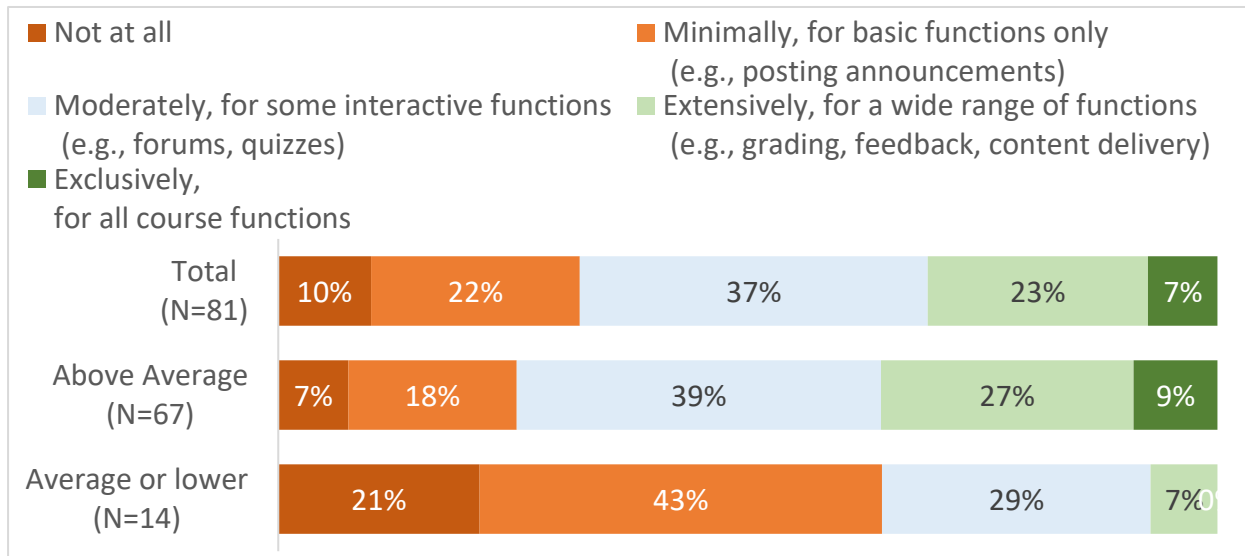
Figure 22: Lectures: Frequency of desired training by overall Digital Literacies Knowledge level



Lecturers were asked to what extent they integrate learning management systems in their courses. About 10% declared that they never integrated them. Disaggregation by the level of overall knowledge of digital literacy shows that 21% of lecturers with a lower level of overall knowledge never integrate learning management system, compared to 7% of those with a higher level of knowledge. Furthermore, 43% of lecturers with an average or lower level of overall knowledge of Digital literacies integrate the learning management system minimally, only for basic functions, compared to 18% of those with a higher level of knowledge.

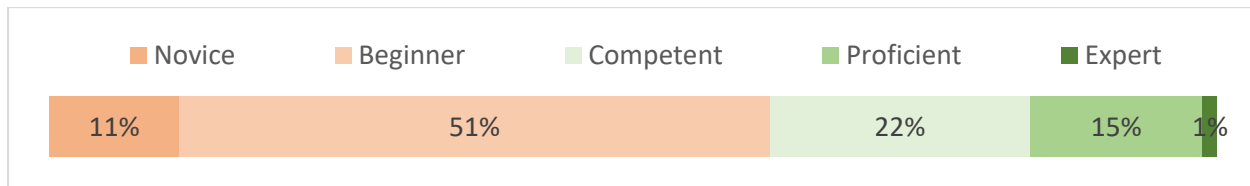
Lecturers during the focus group study stated that the usage of educational platforms like Zoom, Google Classroom, and Google Meetings are very important for the professional development of the students.

Figure 23: Lecturer: Usage of Learning Management Systems in the Lecturer Courses



Results show that in using AI and machine learning tools, only 1% of lecturers consider themselves as “Experts”, 22% as “Proficient”, and 22% as “Competent”. On the other hand, 62% consider them self as “Beginner” or “Novice”

Figure 24: Lecturer - Usage of AI and machine learning tools



Only 6% of the lecturers who consider themselves proficient (Competent, Proficient, or Expert) in AI and machine learning tools always utilize them. On the other hand, 19% “never” or “rarely” utilize them in their research activities. Only 4% of beginners often utilize AI and machine learning tools in their research activities.

Figure 25: Lecturers: Usage of AI or learning machines by knowledge level of them

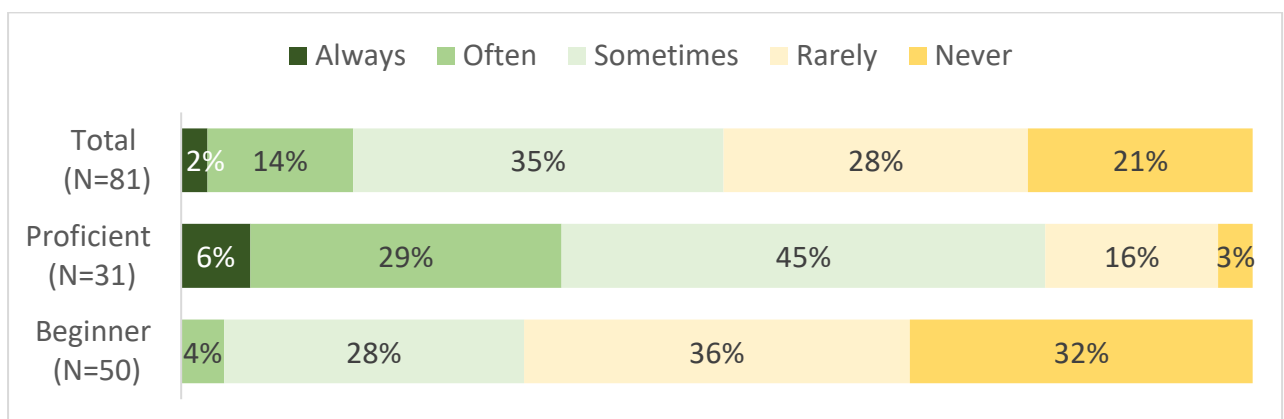
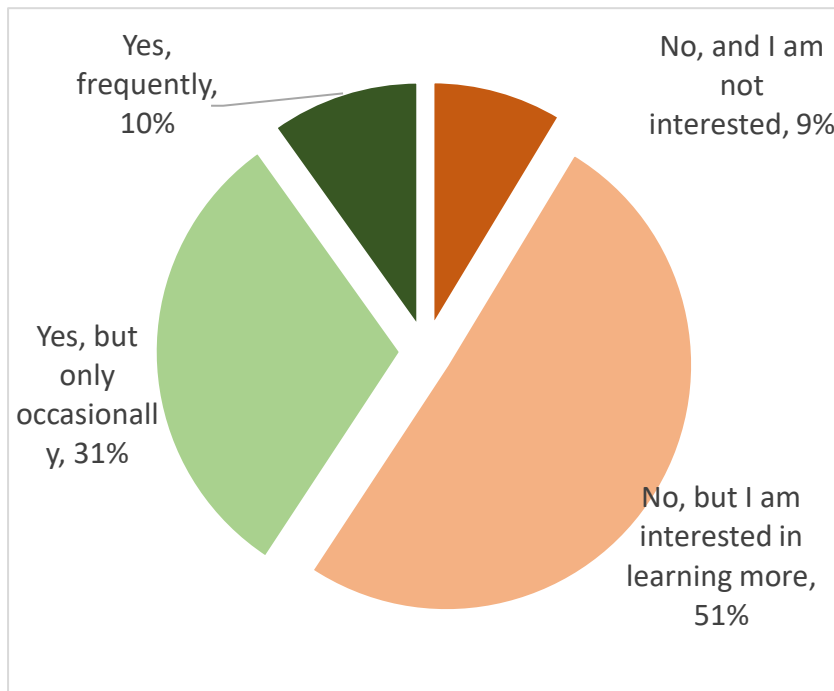


Figure 26: Lecturer - Usage of AI-based tools for personalizing learning or student engagement

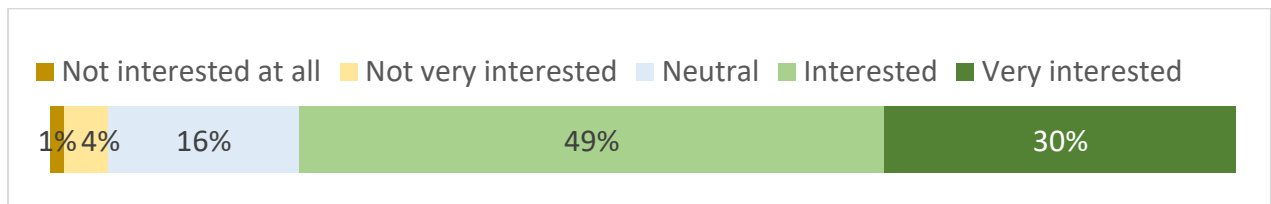


On the other hand, only 10% of the lectures have used AI-based tools for personalizing learning or student engagement in the Mediterranean University of Tirana.

More than half of the lecturers declare that they have not used AI-based tools for personalizing Learning or Student engagement.

When Lectures are asked how interested they are in incorporating AI/machine learning into their curriculum, 30% are “very interested”, and 49% are “interested”.

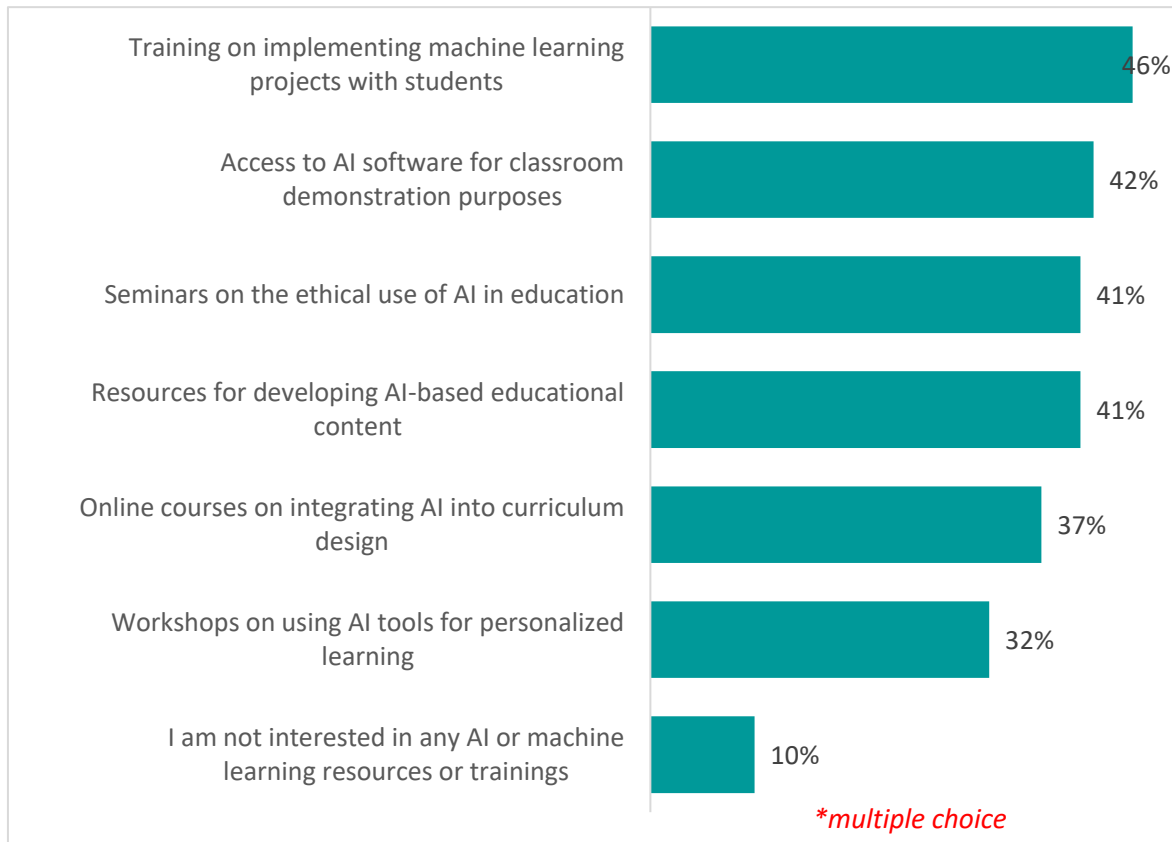
Figure 27: Lecturer - Level of interest in incorporating AI/machine learning into their curriculum





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Figure 28: Lecturer: Desired resources or training that lecturers are interested in having access to improve their teaching

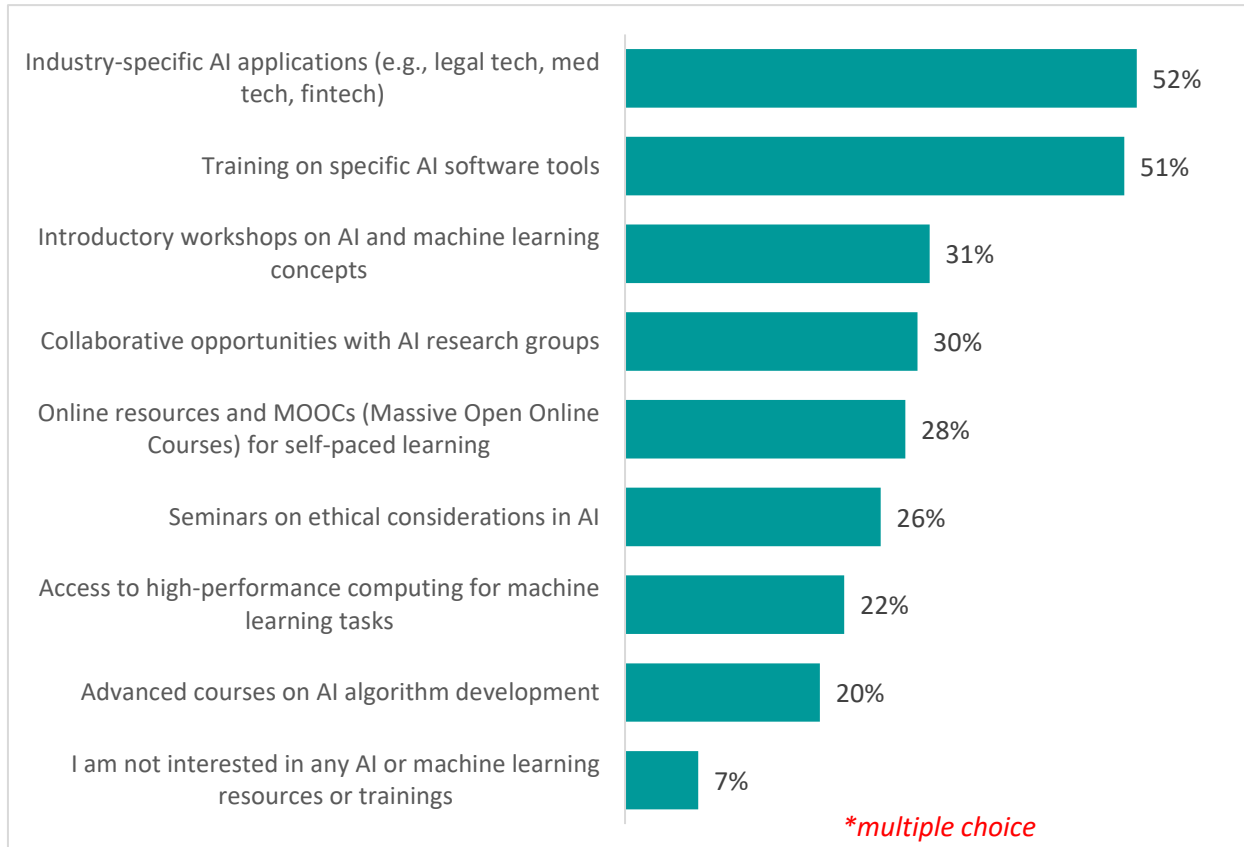


About 46% of the lecturers wish to have training on implementing machine learning projects with students, so they can improve their teaching. Also, 42% of them want to have access to AI software for classroom demonstration purposes, 41% want to have Seminars on the ethical use of AI in education and the same percentage want to have Resources for developing AI-based educational content.

Only 10% of lecturers are not interested in any AI or machine learning resources or training.



Figure 29: Lecturer - Desired resources or training that lecturers are interested in having access to improve their research



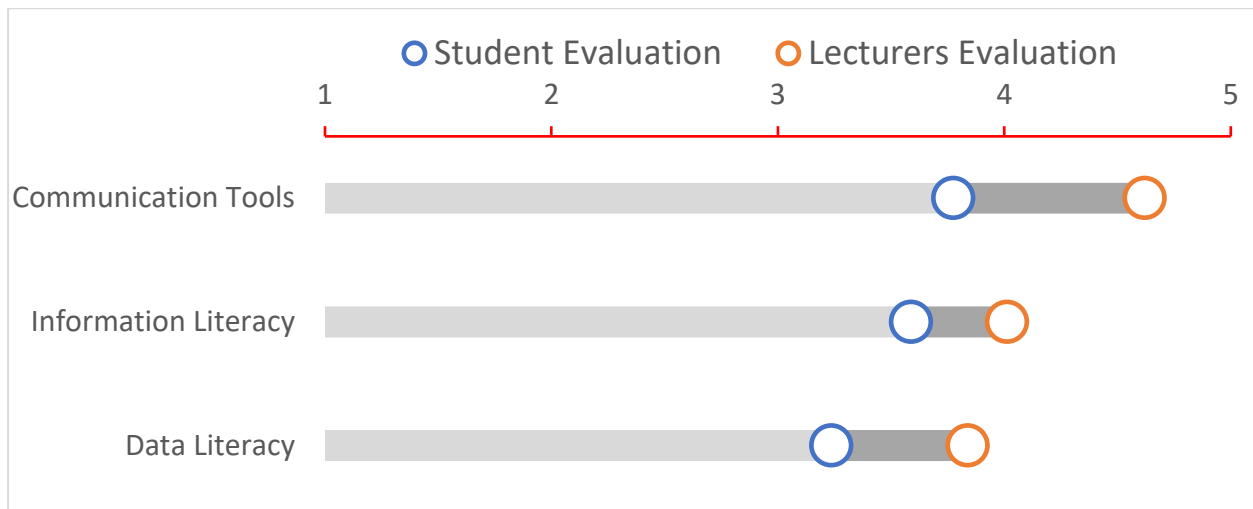
More than half of the lecturers are interested in Industry-specific AI applications (52%) and Training on specific AI software tools (51%), so they can improve their research.

About 31% of the respondents are interested in an Introductory workshop on AI and machine learning concepts.

On the other hand, only 7% of the respondents are not interested in any AI or machine learning resources or training.

To capture different perspectives on the evaluation of knowledge in Digital Literacy, in this study we have asked 3 similar questions to students for lecturers and the opposite. In opposite to how lecturers evaluate themselves on digital literacy, students think they have a lower level of knowledge. There is a significant difference in all the three questions that were asked to students and lecturers.

Figure 30: Comparison of evaluation for Lecturers' knowledge, Student and Lecturer evaluation



IV. CONCLUSIONS

Suggestions made by students who were part of the Focus Group are:

- To have more workshops about digital literacy (university to offer regular training sessions)
- More guest lecturers who know about digital literacy
- Encourage older professors to integrate digital tools into their courses
- Increase credibility and relevance of digital information based on applications that checks information

Findings from qualitative research show that there is a need for Digital literacies training for lecturers and they like to be part of it. Prioritization of the training should be on educational platforms like Zoom, Google Classroom, and Google Meetings and then on digital tools.

Lecturers suggest:

- Promotion of the use of digital platforms and tools in education to enhance student engagement, attendance, and information access compared to traditional methods
- Inclusion of digitalization into the curricula
- Improvement of the existing infrastructure (also access to online libraries)
- Adapt regulations regarding digitalization of the teaching and the university (Address legal obstacles hindering online platform advancement)
- Encourage experience sharing through Erasmus Platforms
- Creation of a unified institutional platform, aligning with the Western Universities model

Focus Group was conducted with stakeholders and not only with students and lecturers. This way we can see the stakeholder's view of the situation to better prepare students and lecturers for the demands of the contemporary digital landscape.

Stakeholders were very interested in collaborating in the process of Digital Literacies training because for them Digital skills were very important and knowing that today's students are the workforce of



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tomorrow there is a need to improve their digital skills. They state the importance of training for both students and lecturers to improve the skills of the workforce tomorrow.

They suggest:

- Collaboration of the university with stakeholders so students can be part of the internships, and joint projects (students, lecturers, and stakeholders)
- New curricula and courses with a focus on Digital tools
- Mentorship programs (professionals guide students)
- Access to Industry Resources - Facilitating access to industry-specific resources, databases, or case studies that can aid both staff and students in staying abreast of industry best practices and emerging digital trends





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University to Society Collaborations for Inclusive Digital Transformation in the Western Balkans

Report

**NEEDS ASSESSMENT SURVEY OF DIGITAL LITERACIES IN
U2SID PARTNER UNIVERSITY OF KORÇA "FAN S. NOLI",**





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This report is prepared by the Center Science and Innovation for Development (SCiDEV)

The research team:

Data analysis and statistician: Ilir Brasha

Contributors: Orkidea Xhaferaj and Erjon Curraj

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Tirana, Albania, January 2024

This document is produced in the framework of the Erasmus+ Capacity Building in Higher Education Project: U2SID - University to Society Collaborations for Inclusive Digital Transformation in the Western Balkans.

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EXECUTIVE SUMMARY





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PROJECT SNAPSHOT

Project Title	University to society collaborations for inclusive digital transformation in the Western Balkans
Project's acronym	U2SID
Webpage	[insert project website]
Project's budget	EUR 398,650.00
Funded by	Erasmus+ Programme Capacity building in Higher Education
Project number	101083131
Project duration	24 months
Project Coordinator	University of Shkodra Luigj Gurakuqi
Countries involved	Albania; Serbia; Montenegro; Italy
Project partners	<p>University of Shkodra Luigj Gurakuqi</p> <p>University „Fan S. Noli” of Korca</p> <p>Mediterranean University of Albania</p> <p>Center Science and Innovation for Development</p> <p>Center for Comparative and International Studies</p> <p>National Agency for Scientific Research and Innovation</p> <p>University of Montenegro</p> <p>University of Belgrade</p> <p>University of Salento</p>
Aim and objective	<p>Project's aim: To foster inclusive digital transformation in the Western Balkans through increased collaboration between universities with other stakeholders such as businesses, policy makers, civil society, and media.</p> <p><i>The specific objectives of U2SID are:</i></p> <p>SO1 – To strengthen digital competences of teachers, students, and professionals through the development of a Digital Literacies Acceleration Programme as a collaborative programme among universities on one side and businesses, civil society, local decision makers and media on the other.</p> <p>SO2 – To improve innovative teaching methods through piloting a Digital Transformation Challenge for students as a project-based and solution-oriented learning based on mentoring, coaching and placement at businesses, civil society, local decision makers and media.</p> <p>SO3 – To raise awareness on the importance of inclusive digitalisation by including vulnerable target groups in the digitalization process.</p>





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ABBREVIATIONS

CCIS	Center for Comparative and International Studies (Qendra për Studime Krahasuese dhe Ndërkombëtare)
EACEA	European Union or European Education and Culture Executive Agency
EU	European Union
NASRI	National Agency for Scientific Research and Innovation (Agjencia Kombëtare e Kërkimit Shkencor dhe Inovacionit)
PSC	Project Steering Committee
SciDEV	Center Science and Innovation for Development (Qendra Shkencë dhe Inovacion për Zhvillim)
U2SID	University to society collaborations for inclusive digital transformation in the Western Balkans
UCG	University of Montenegro (Univerzitet Crne Gore)
UMSH	Mediterranean University of Albania (Universiteti Mesdhetar i Shqipërisë)
UNIBELGRADE	University of Belgrade (Univerzitet u Beogradu)
UNIKO	University „Fan S. Noli” of Korca (Universiteti i Korçës "Fan S. Noli")
UNISALENTO	University of Salento (Università del Salento)
UNISHK	University of Shkodra Luigj Gurakuqi (Universiteti i Shkodrës “Luigj Gurakuqi”)
WP	Work Package





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I. INTRODUCTION

The U2SID project aims to drive inclusive digital transformation in higher education in Western Balkans by fostering collaboration between universities, businesses, policymakers, civil society, and media. It emphasizes safe digitalization through enhancing awareness and capacity in privacy, data protection, and digital literacies, thus promoting digital rights. The aim of the project is to foster inclusive digital transformation in the Western Balkans through increased collaboration between universities with other stakeholders such as businesses, policy makers, civil society, and media.

The U2SID project's specific objectives encompass three key areas. Firstly, it focuses on enhancing digital competencies among teachers, students, and professionals via a Digital Literacies Acceleration Programme. This program promotes collaboration between universities and various stakeholders like businesses, civil society, and media. Secondly, it aims to advance innovative teaching methods through the Digital Transformation Challenge, offering project-based, solution-oriented learning with mentorship and professional placements. Lastly, it emphasizes raising awareness about inclusive digitalization, particularly targeting and including vulnerable groups in the digitalization process.

In this light, the central objective of this research exercise is to evaluate the current state of digital literacies among two primary groups within the academic sphere: lecturers and students in 4 partner universities of the U2SID project, namely: University of Shkodra “Luigj Gurakuqi”, University of Korça “Fan S. Noli”, Mediterranean University of Albania and University of Montenegro. The study recognizes the increasing role those digital competencies play in both delivering and accessing higher education. By assessing the needs, the study intends to identify gaps in knowledge, skills, and infrastructure that may be hindering the effective use of digital tools and resources in teaching and learning environments in the universities involved in this project in Albania and Montenegro.

Furthermore, the study seeks to incorporate diverse perspectives by engaging with stakeholders who are directly or indirectly impacted by the digital literacies of lecturers and students. These stakeholders may include administrative staff, IT personnel, policy makers, and employers. The input from these groups will provide a multi-dimensional understanding of digital literacies needs, expectations, and the potential barriers to implementing digital literacies programs.

II. METHODOLOGY

The methodology for this need assessment exercise on digital literacies at university level is crafted to facilitate an understanding of the subject within academic contexts of partner universities involved in the project and to inform with evidence the next activities to be implemented by the project partners such as the Digital Literacies Accelerator Programme and Digital Transformation Challenge. This approach embraces both quantitative and qualitative data collection methods, harmonizing them to draw a reliable picture of the digital literacies needs and gaps in these the academic context of University of Korça “Fan S. Noli”. The study was conducted in November and December 2023 and the data analysis in January 2024.

Central to the quantitative dimension of our research are online questionnaires with a total of 168 students surveyed and 29 lecturers. These instruments are designed to quantitatively assess lecturers’ and students’ self-reported competencies in digital literacies, their habitual use of digital resources,





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their preferences for certain technologies, and their perceived needs for further support and development. Ensuring a representative sample in each partner university is important; therefore, the study encompasses a diverse cross-section of departments, faculties, and educational levels both Bachelor and Masters. Subsequent statistical analyses scrutinize this quantitative information to identify prevalent patterns and trends, which provide insights for recommendations for the next activities to be implemented by the project partners.

Parallel to this, the qualitative component through structured focus group discussions delves into the more subjective dimensions of digital literacies. These sessions are planned to reveal the attitudes, personal experiences, and the various contextual factors that shape individuals' engagement with digital tools and resources. Discussion guides, prepared in advance and based on literature reviews, steered conversations to meaningful depths. The discussions were then transcribed in detailed focus group reports by each partner university. 3 focus groups were organized by with lecturers, students, and stakeholders, with a total of 46 participants.

The integration of quantitative and qualitative data is necessary for the cross-verifying data points but also minimizes the biases that any single method might introduce. The findings of the need assessment are relevant for participating partner universities and cannot be generalized to entire academic contexts in Albania and Montenegro.

The online questionnaire and focus group guidelines, used this “Digital literacies” definition:

- Basic Computer Skills: Using an operating system, managing files, and understanding basic hardware.
- Internet Navigation: Using search engines, evaluating online sources, and understanding internet safety.
- Productivity Software: Proficiency in word processing, spreadsheets, and presentation software.
- Communication Tools: Email, instant messaging, video conferencing, and collaboration platforms.
- Digital Creation: Basic photo editing, video production, or website creation.
- Information Literacy: Finding, evaluating, using, and citing digital information.
- Cybersecurity Awareness: Understanding of personal data protection, password security, and awareness of phishing scams.
- Social Media Literacy: Creating content, understanding digital footprints, and privacy settings.
- Data Literacy: Understanding of data collection, analysis, and interpretation.
- E-Learning Platforms: Navigating online learning systems and digital libraries.





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III. DATA ANALYSIS AND FINDINGS

The study investigates digital literacies among students and lecturers at University of Korça “Fan S. Noli”, of Albania. In total part of the study were surveyed 168 students, (35% males and 65% females; 61% living in urban areas and other 39% in rural areas), and 29 lecturers (31% males and 69% females).

The margin of error for the student’s study is 7.4%, meaning that the confidence interval of every result is +- 7.4%.

Data Analyses are conducted using IBM SPSS. Data for students are weighted in order to be representative of the total students of the university. This was done so the contribution of male and female respondents was proportional to the real population of the total students of the university.

1. FINDINGS

This section of the report is structured around three primary components: firstly, it presents both quantitative and qualitative findings related to students; secondly, it delves into similar types of data concerning lecturers; and thirdly, it incorporates qualitative insights obtained from focus groups with various stakeholders.

2.1 Findings regarding students

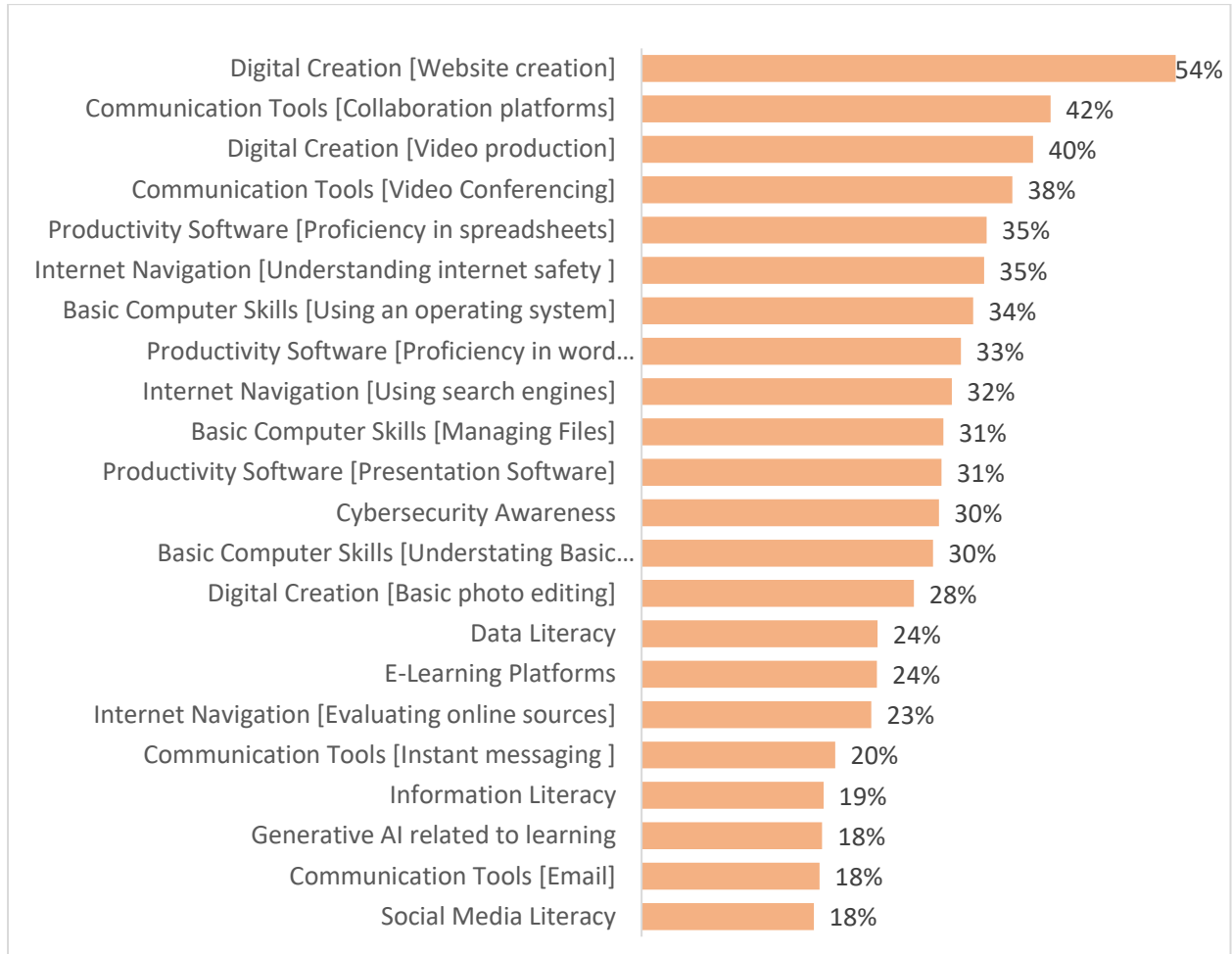
The results from University of Korça “Fan S. Noli”, show that more than half of the students lack of ability in the Digital Creation (Website creation). About 54% of the students declare to have “no proficiency” or “limited proficiency” in the Website Creation. Almost 42% of University of Korça “Fan S. Noli”, Students do not have basic Communication Skills like Collaboration Platforms. Also, about 40% of the respondents say that they have “no proficiency” or “limited proficiency” in Digital Creation (Video production).

On the other hand, fewer students declare to have “no proficiency” or “limited proficiency” in Social Media Literacy (only 18%), in Communication Tools like Email (18%), in Generative AI related to learning (18%), and on Information Literacy (19%).

The data used for the total students of the University of Korça “Fan S. Noli”, are weighted so the results would be representative of the whole students. The margin of error in this case is equal to 7.4%, so the interval of confidence is +-7.4% for all the results of the total presented in this paper.



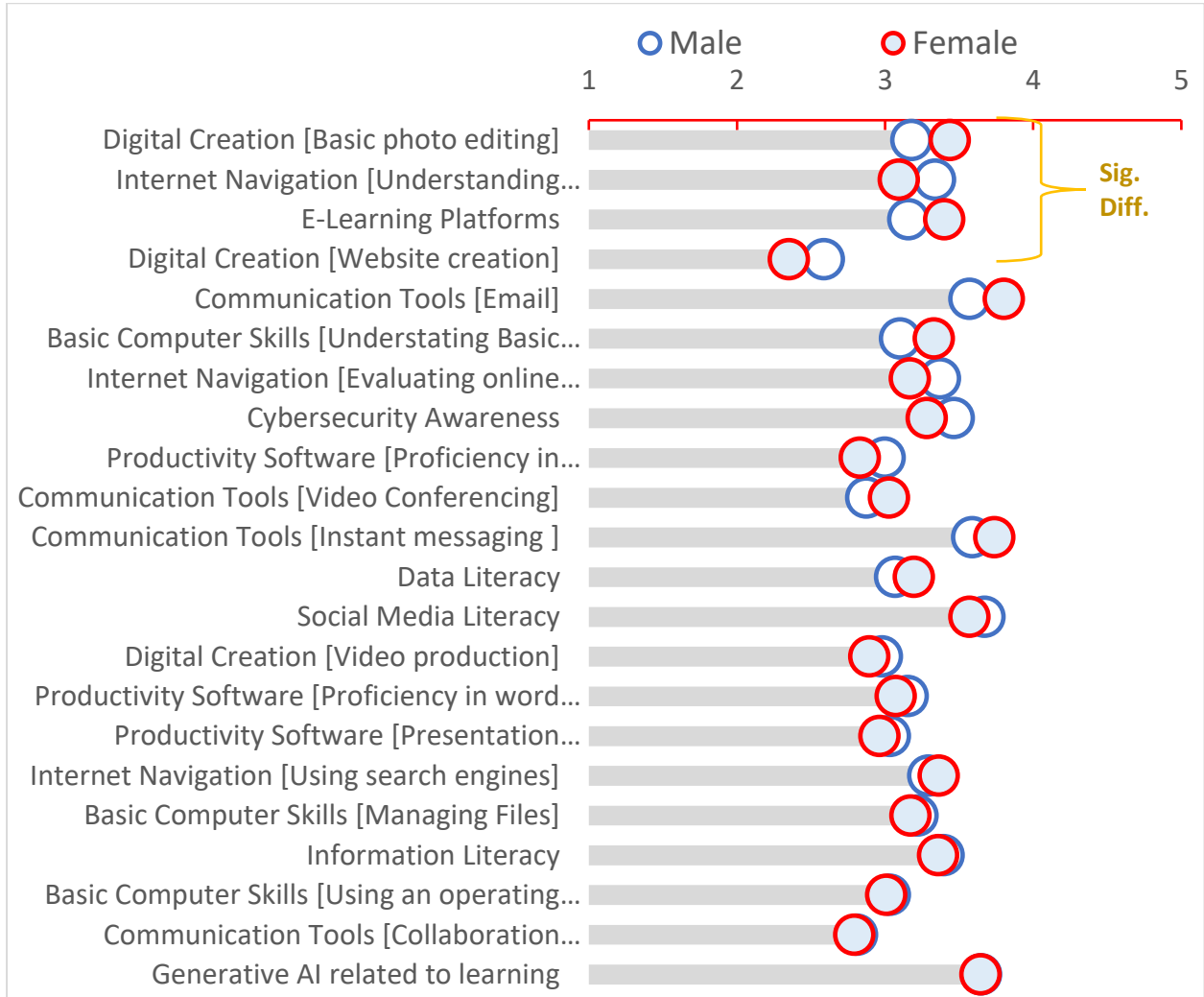
Figure 1: Students - Share of students who have “no proficiency” or “limited proficiency” in Digital Literacies.



Findings from the qualitative approach show that students use technological tools for their studies. The most mentioned digital tools they use are Microsoft Office, PowerPoint Presentations, Photoshop, Canva, media networking platforms, Viber, Voice Recording, Instagram, Google search engines, ChatGPT, Zoom, Google Meeting, Microsoft Teams, online dictionaries, online translations, word spelling, and some specific tools related only to their field of studies (for instance: the Nursing order Platform used by nursing students). When taking apart only the educational platforms the most mentioned platforms are Microsoft Teams, Zoom, Edmodo, Google Classroom, etc.

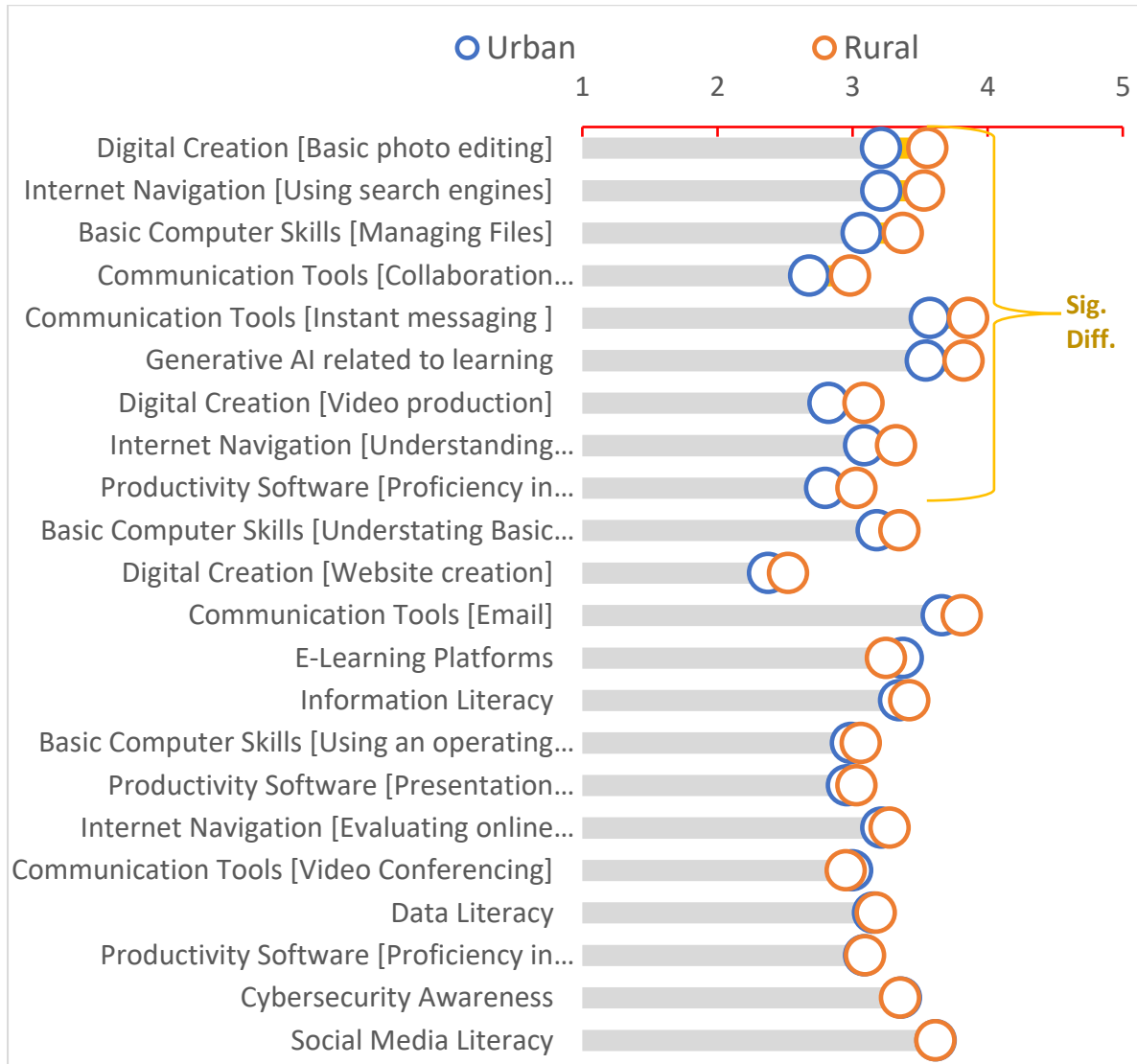
Females tend to have more knowledge of the Digital Creation like Basic Photo Editing and on E-learning platforms. On the other hand, males tend to have more knowledge of Internet Navigation (Understanding Internet safety) and Website Creation. On the other indicators, there is no significant difference between males and females.

Figure 2: Students - Level of knowledge on Digital Literacies by gender



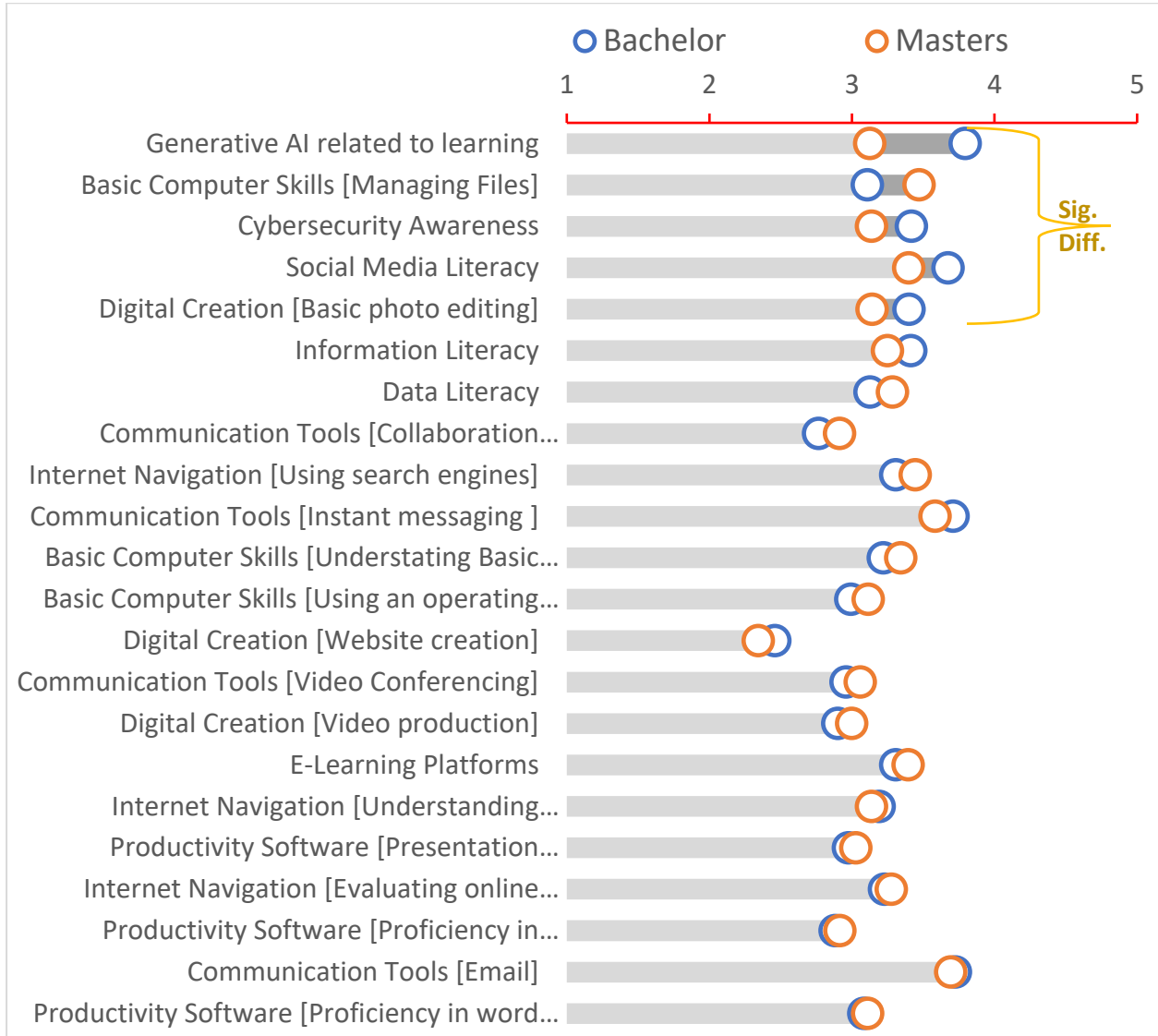
Results by Urbanity show that respondents from rural areas tend to have a higher level of knowledge on almost all the indicators used to measure Digital Literacies compared to respondents from urban areas. The largest difference is shown in Digital Creation (Basic Photo Editing), where students from rural areas declare to have a higher knowledge level.

Figure 3: Students - Level of knowledge on Digital Literacies by Urbanity



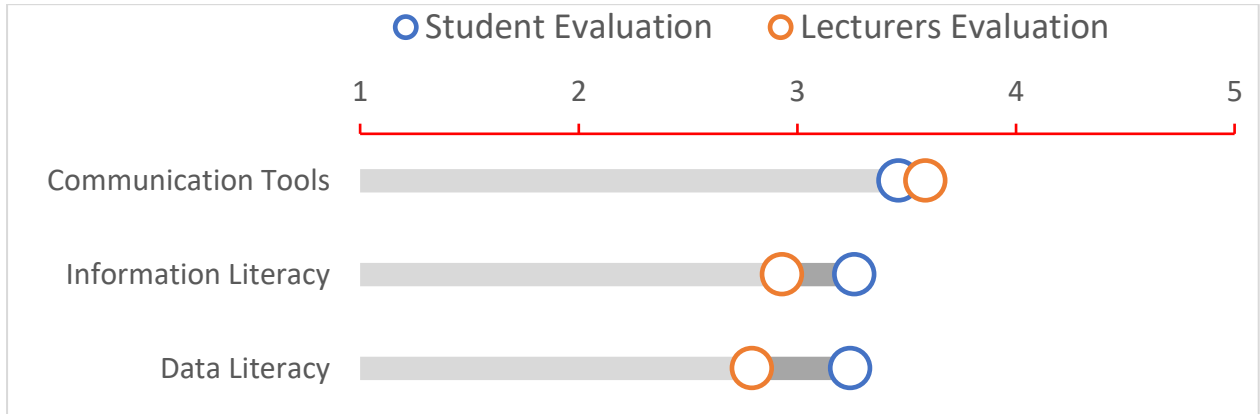
Bachelor Students declare to have a higher level of knowledge in Generative AI related to learning, Cyber Security, Social Media Literacy, and Basic Photo Editing. On the other hand, master students show a higher level of knowledge on Managing files.

Figure 4: Students - Level of knowledge on Digital Literacies by degree



To capture different perspectives on the evaluation of knowledge in Digital Literacies, in this study we have asked 3 similar questions to lecturers for students and the opposite. As can be seen in the graph below, students think that lecturers have a higher level of knowledge of Information Literacy and in Data Literacy.

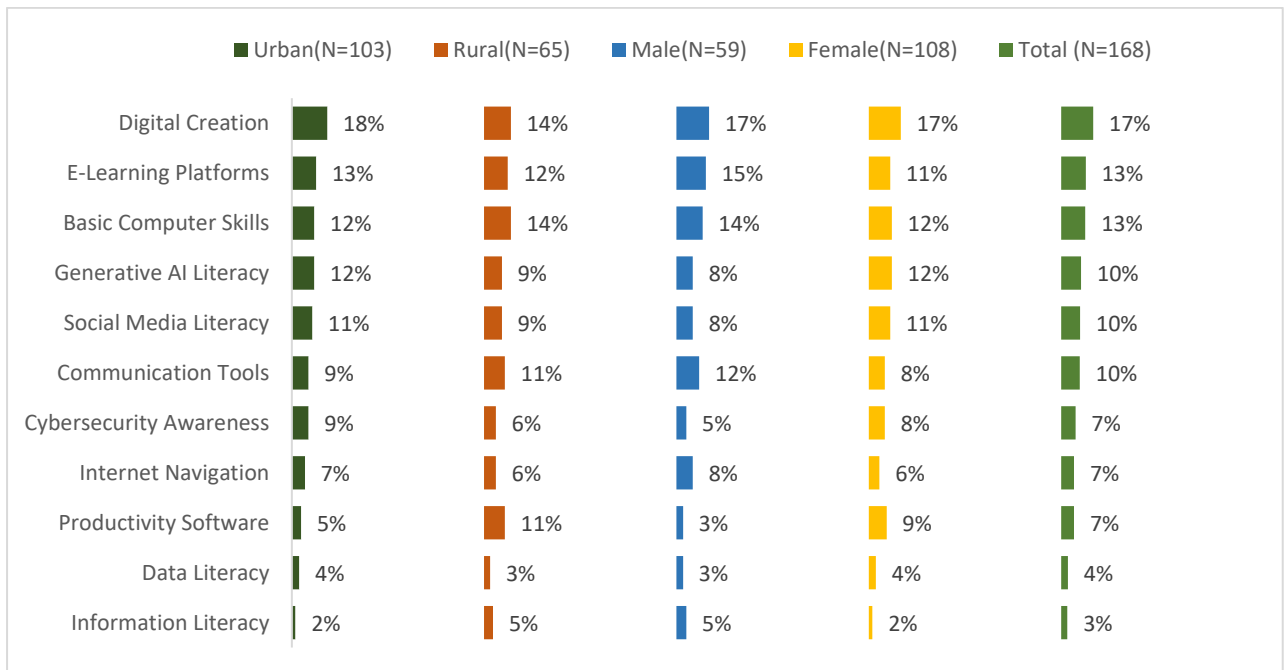
Figure 5: Students - Comparison of evaluation for Student Knowledge, Students and Lecturers evaluation



When students were asked what specific Digital literacy they were interested in improving, 17% chose Digital Creation, 13% E-Learning platforms, and Basic Computer Skills.

There are no significant differences between males and females, or students living in urban and rural areas.

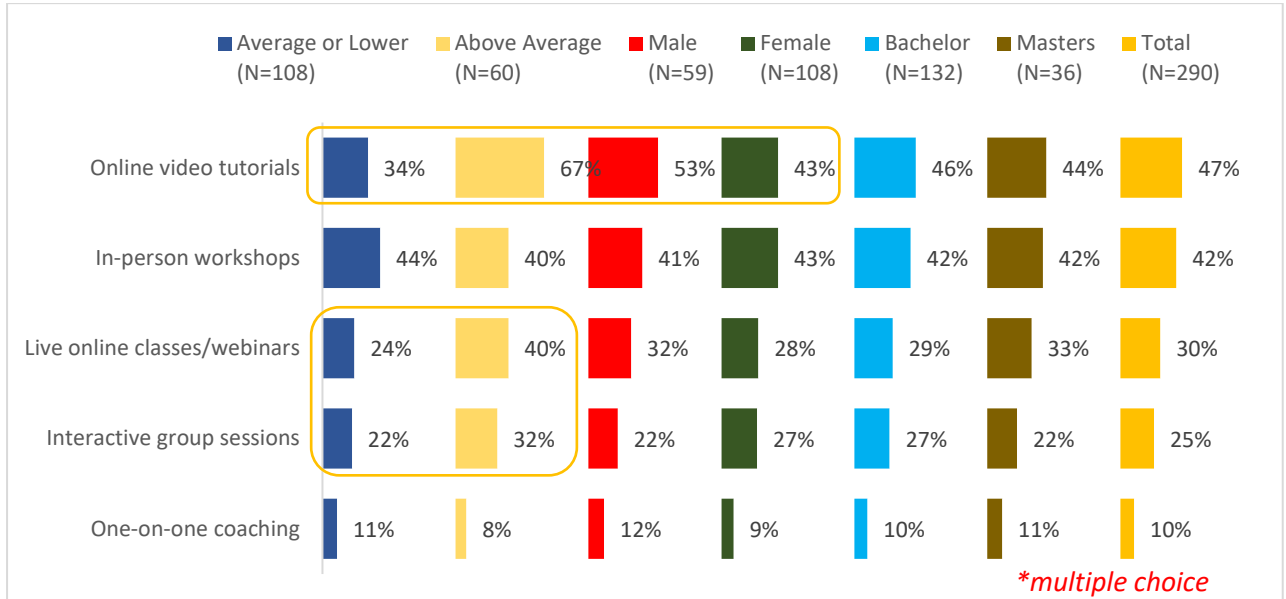
Figure 6: Students - Skills that students are interested in improving, by urbanity and gender



When asked about preferred formats of Digital literacies Training, almost half of the respondents wanted Online Video Tutorials (47%). For Online Video Tutorials we have the largest differences between males and females, and students with higher Digital Literacy Knowledge and others. Respectively, 53% of male students prefer Online Video Tutorials compared to 43% of females. Also, 67% of the students with higher Digital Literacies knowledge prefer online video tutorials compared to only 34% of other students with a lower level of knowledge. A large difference is results in Live online classes/webinars and in Interactive group classes, where both are significantly more preferred by students with higher levels of Digital Literacies knowledge. Different from findings in the quantitative

research, findings from Focus Groups show that students prefer more face-to-face training over online training. But they find very effective also online video tutorials as showed in the quantitative approach.

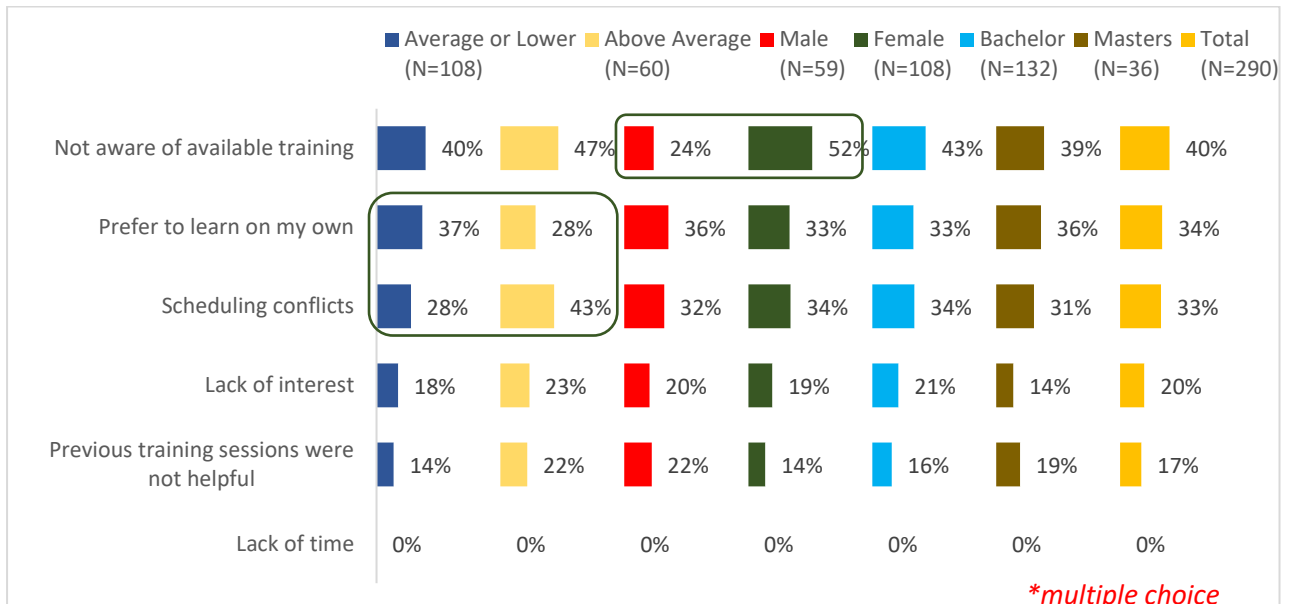
Figure 7: Students - Preferred formats of Digital Literacies, by degree, gender, and overall level of Digital Literacies knowledge



Students were asked about barriers to attending the training sessions. Awareness about the available trainings was the main problem for 40% of the students. Next was that 30% of the students wanted to learn by themselves, and 30% were not aware of any available training. About 52% of females declare that they were not aware of any available training, compared to 24% of males.

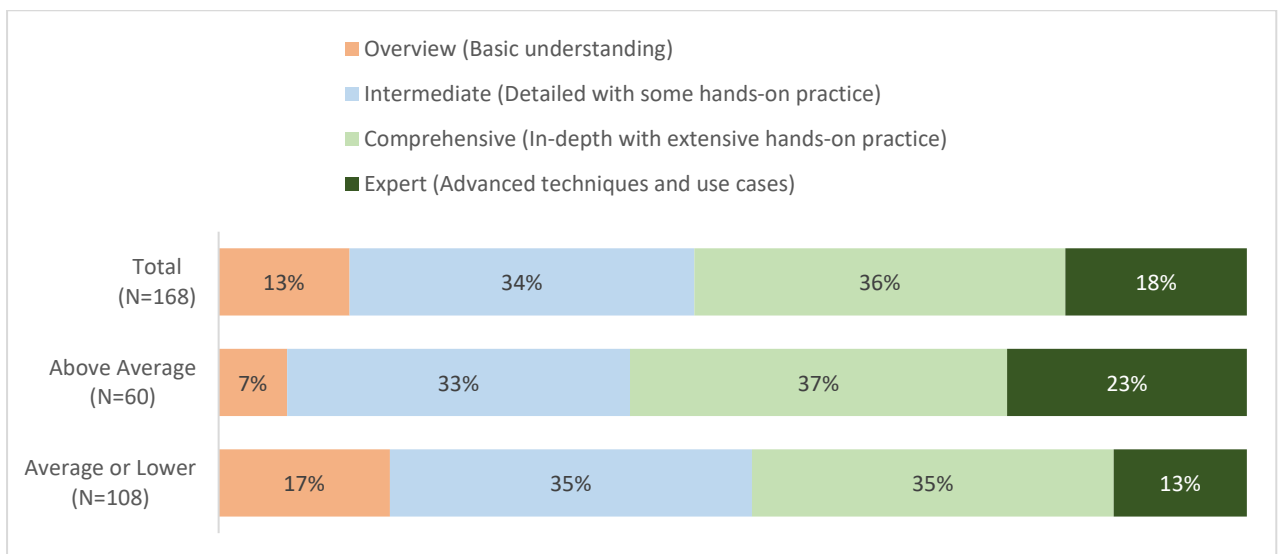
Large difference between students with higher levels of overall knowledge and others is shown in Scheduling conflicts (28% for the average or lower knowledge students and 43% for others with higher knowledge). Also, there is a large difference in the preference of learning by themselves, (37% for the average or lower knowledge students and 28% for others with higher knowledge).

Figure 8: Students - Barriers to attending training sessions by gender, degree, and the overall level of Digital Literacies Knowledge



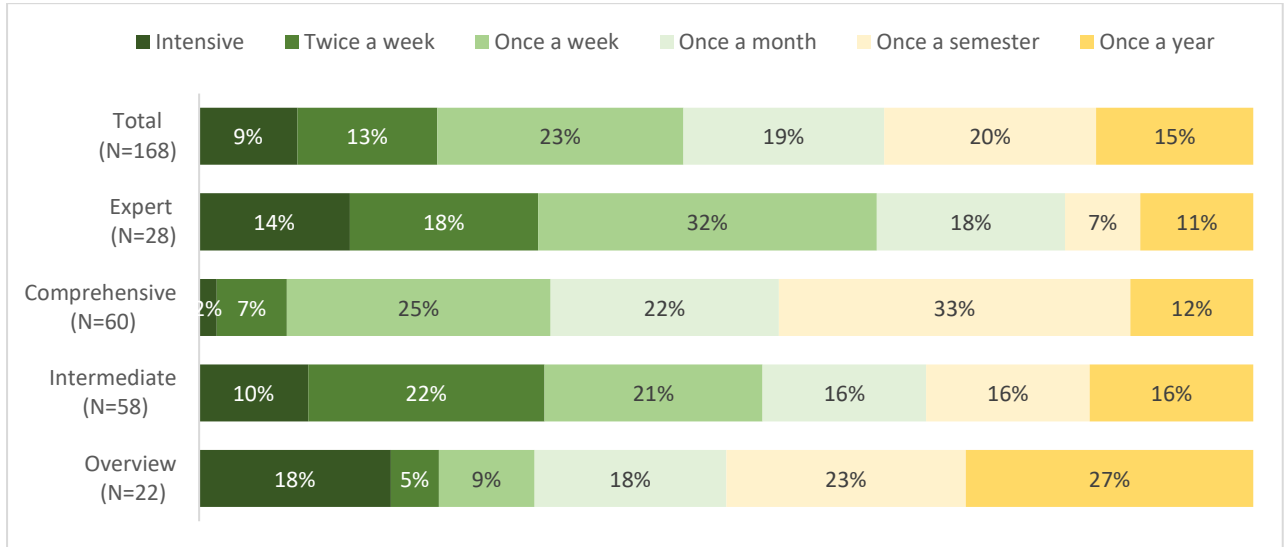
When asked about the preferred format of Digital Literacies training, 18% wanted expert-level training. More students with higher overall digital literacy knowledge prefer expert training 23% vs 13% for others.

Figure 9: Students: The preferred format of Digital Literacies training by the overall level of Digital Literacies Knowledge



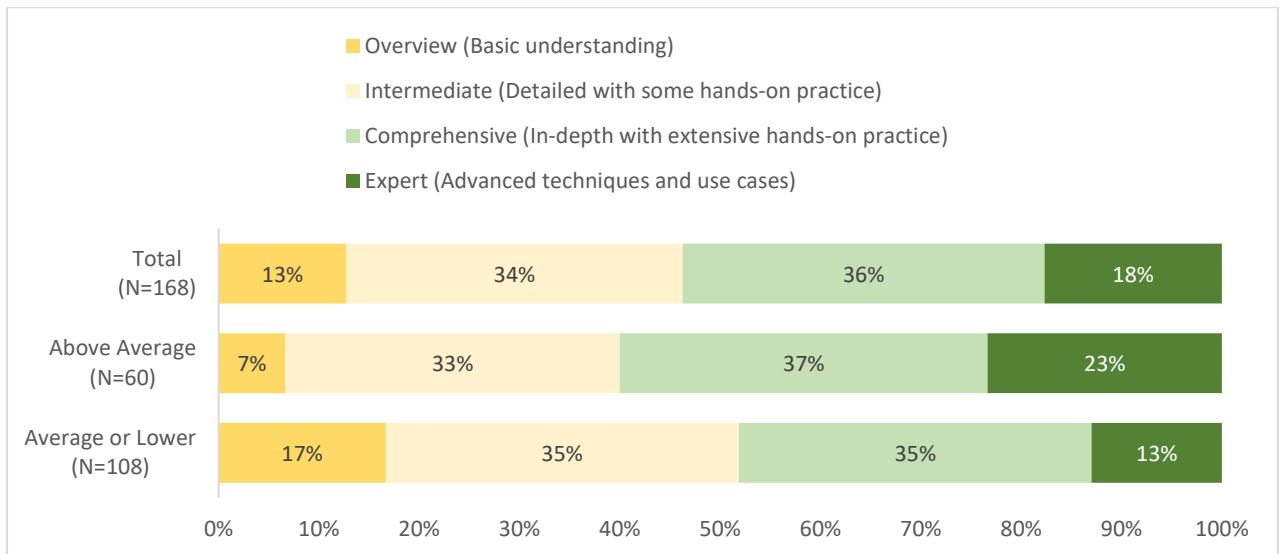
About 9% of the students are interested in taking an intensive course, while 13% prefer twice a week, and 23% once a week. On the other hand, 15% of the students want once a year Digital Literacies trainings.

Figure 10: Students - Frequency of the training sessions by desired training by students



Students with more overall level of Digital literacy knowledge prefer to take more intensive courses compared to others with a lower level of knowledge. (23% vs 13%).

Figure 11: Students - Frequency of the training sessions by the overall level of Digital Literacies Knowledge



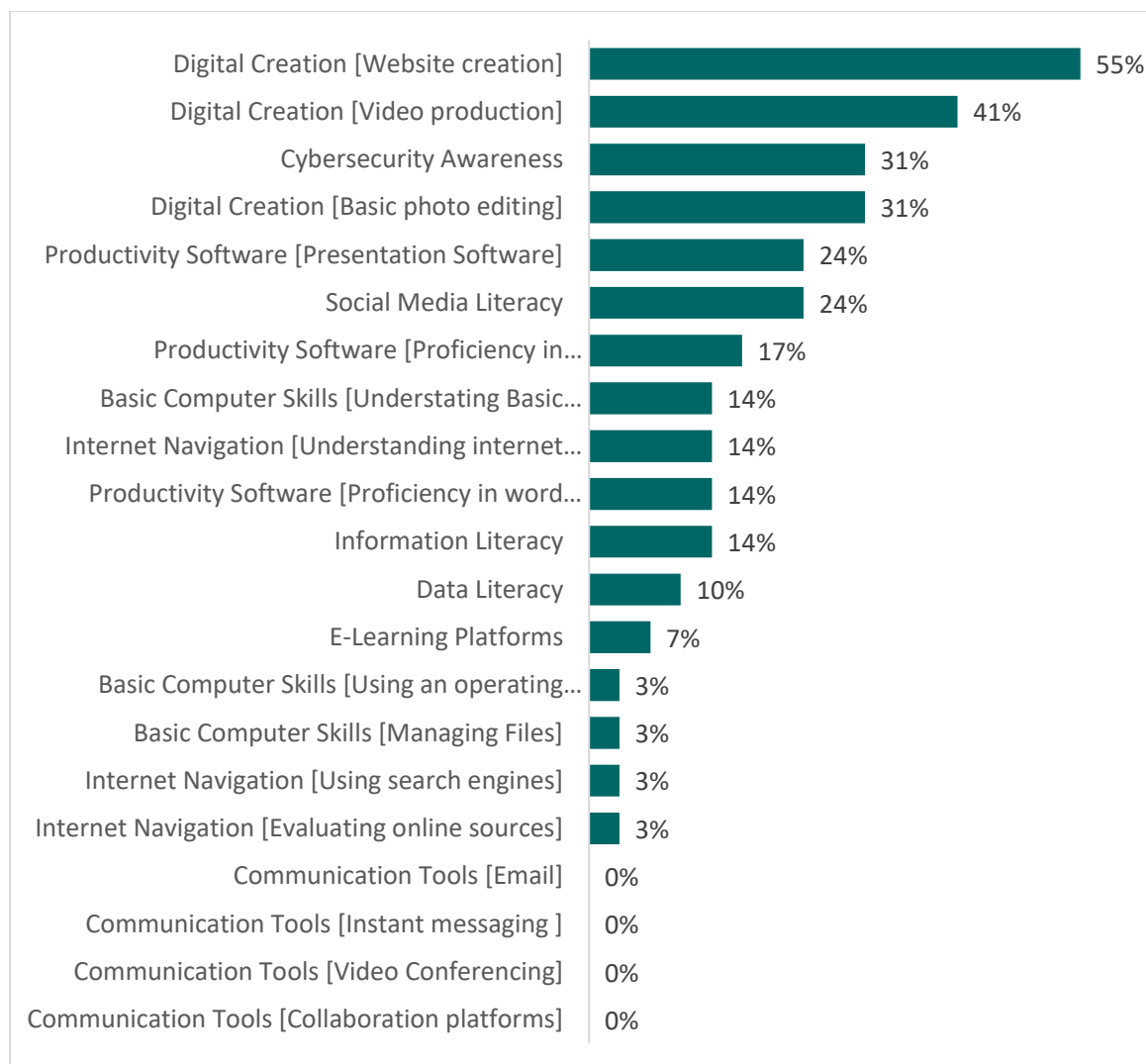
Furthermore, findings from qualitative approach show that most of the students are interested in Digital Literacy training. They recommend to provide a comprehensive digital literacies training to students of all profiles and not only to those who are related to technology. Students of the University of Korça “Fan S. Noli”, ask for basic things like using official emails instead of WhatsApp as a formal communication platform, to have internet access in all the faculties, to have a better infrastructure (more computers, projectors etc.), to have online library access.

2.2 Findings regarding lecturers

Results for Lectures show that they have less knowledge of Digital Creation and Video Production, respectively 55% declare to have “No Proficiency” or “Limited Proficiency” in Website Creation and 41% in Video Production. Furthermore, more than 31% of the lecture respondents declare they have “No proficiency” or “Limited Proficiency” in Cybersecurity Awareness, and in Basic Photo editing. On the other hand, 0% of the students declare to have “No Proficiency” or “Limited Proficiency” on Communication tools.

In the Focus Group, Lecturers declare that their level of Digital Literacy is pre-intermediate and they need trainings to improve their knowledge on this area. They approve that even if they now use some programs, they are old fashioned and they do not have access to the new ones. All the lecturers are familiar to Microsoft Teams (that is because of the pandemic) and they still use it in some cases only to save and share documents in the platform.

Figure 12: Lecturers - Share of lecturers who have “no proficiency” or “limited proficiency” in Digital Literacies.

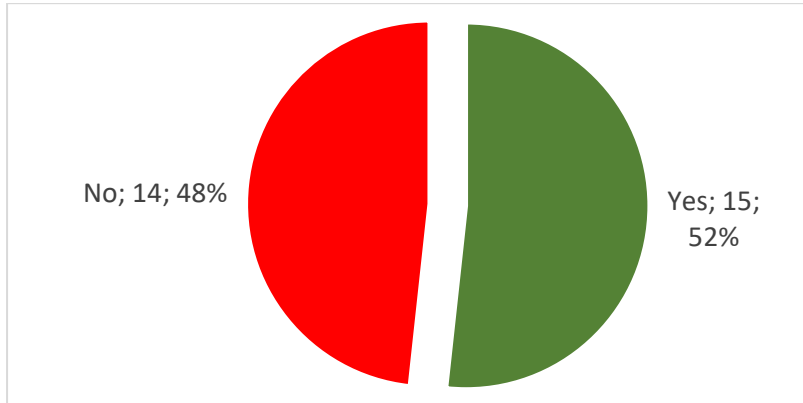


More than half of the Lectures (52%) at the University Fan S. Noli have participated in training related to digital literacies in the past years.

Figure 13: Lecturers - Participation in training in last years.



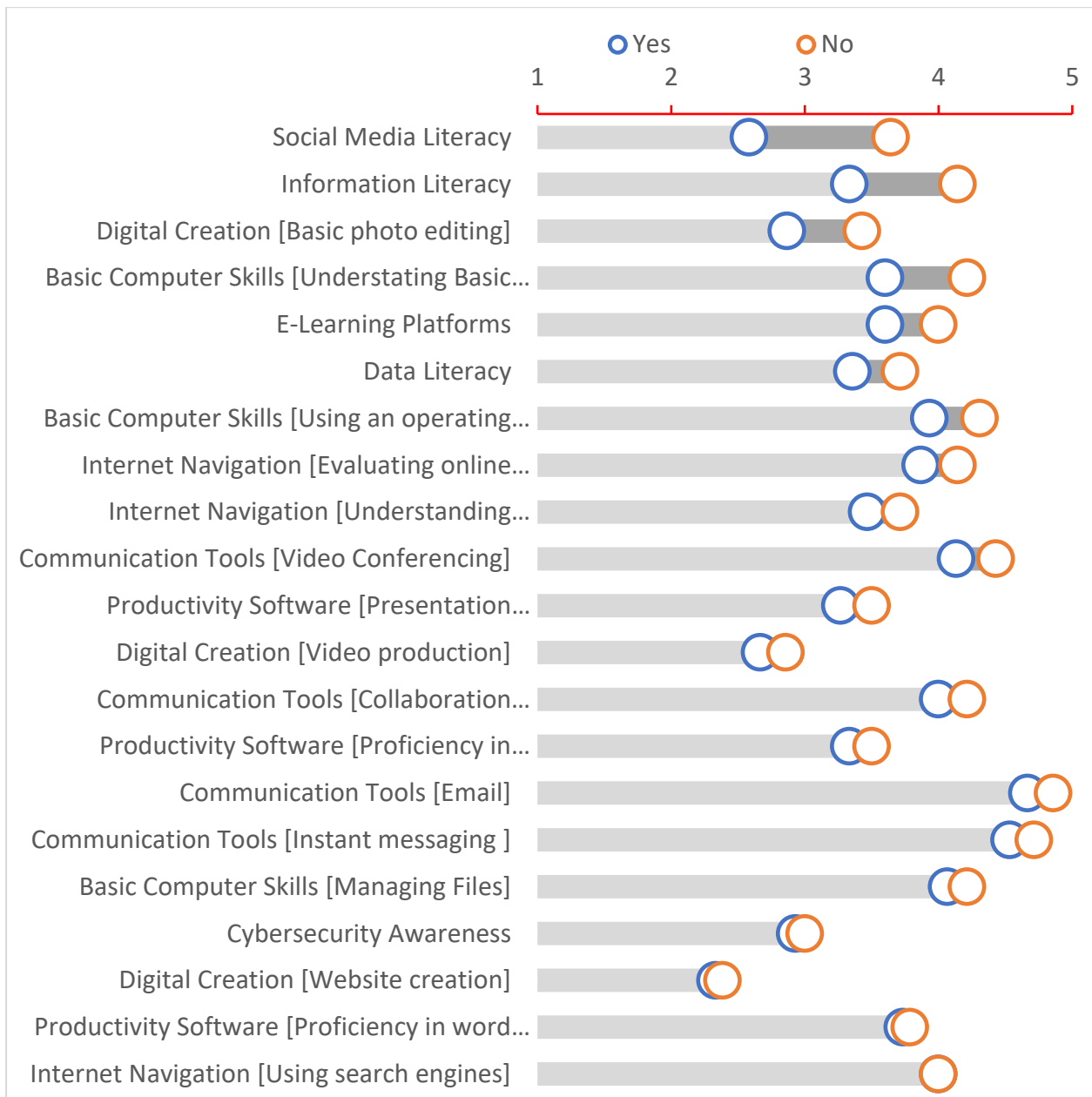
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Data from the lecturer at Fan S Noli University show some contradicting results regarding the knowledge of Digital Literacy. Lecturers who have participated in Digital Literacy training in the past years declare to have a lower level of knowledge compared to others who have not been part of any training for Digital Literacies. This result can come for a lot of reasons, but one most important one is that lecturers who have been part of the training know that there is a lot to learn, so they evaluate themselves at a lower level, knowing how much they have the opportunity to learn.



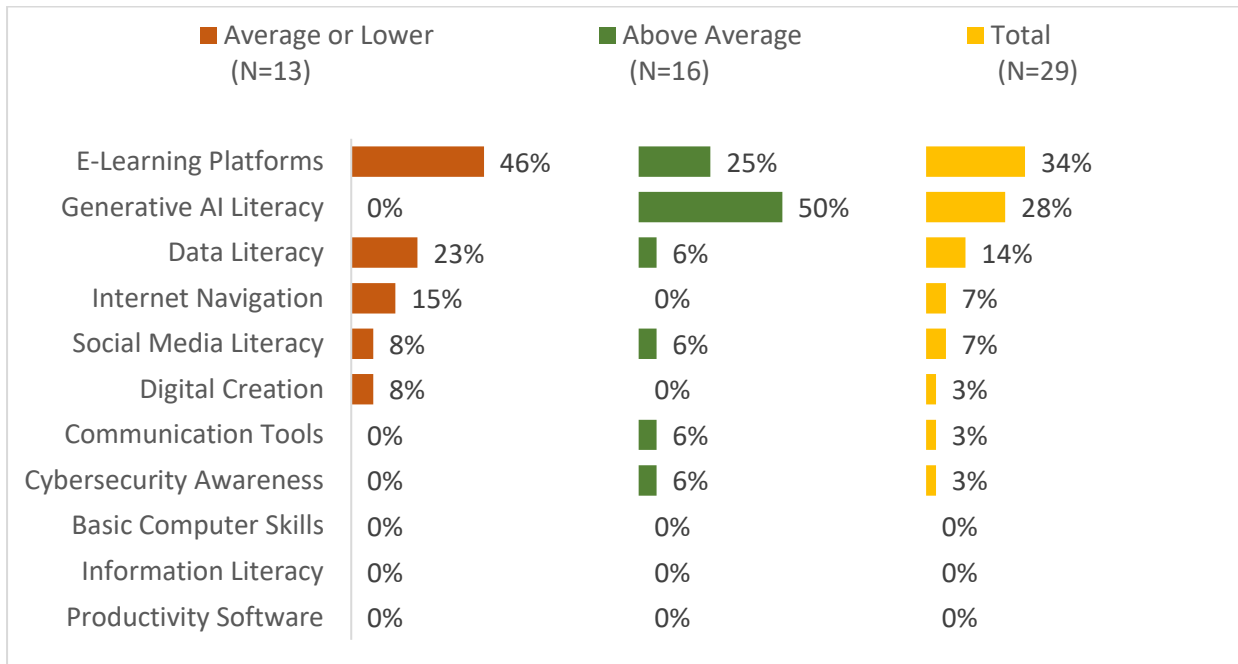
Figure 14: Lecturer - Level of knowledge on Digital Literacies by participation in previous training



To measure what lectures need to be trained, it is created a new variable named knowledge, which shows if a respondent has knowledge (for all the indicators) below the average or higher. When respondents had to choose the one most important skill they want to improve, 34% chose E-Learning Platforms. Results show that the second Digital Literacy lecturers are most interested in improving Generative AI Proficiency (28%).

Disaggregation by the level of Knowledge on Digital Literacies shows that those who have a lower level of knowledge (Average or lower) are more interested compared to others with a higher level of knowledge in learning skills like E-Learning Platforms. On the other hand, lecturers with a higher level of knowledge of Digital Literacies are more interested in the more advanced Digital Skills, such as Generative AI Literacy (50% vs 0%).

Figure 15: Lecturers: Digital Literacies skills that lecturers want to improve the most by the Digital Literacies Knowledge level



Another question in the survey is about what respondents are interested in improving but they can choose more than one answer and not only the one they are most interested in.

Almost half of the respondents are interested in improving their skills in Generative AI Literacy (48% overall, 23% for those with average or lower level of knowledge, and 69% for those with a higher level of knowledge on Digital Literacy). Same goes for E-Learning Platforms (48% overall, and 54% for those with an average or lower level of Digital Literacy knowledge vs 44% for those with a higher level of knowledge).

Only 6% of lecturers with a higher level of Digital Literacies knowledge are interested in improving Productivity Software, compared to 38% of others.

Figure 16: Digital Literacies skills that lecturers want to improve by Digital Literacies Knowledge level

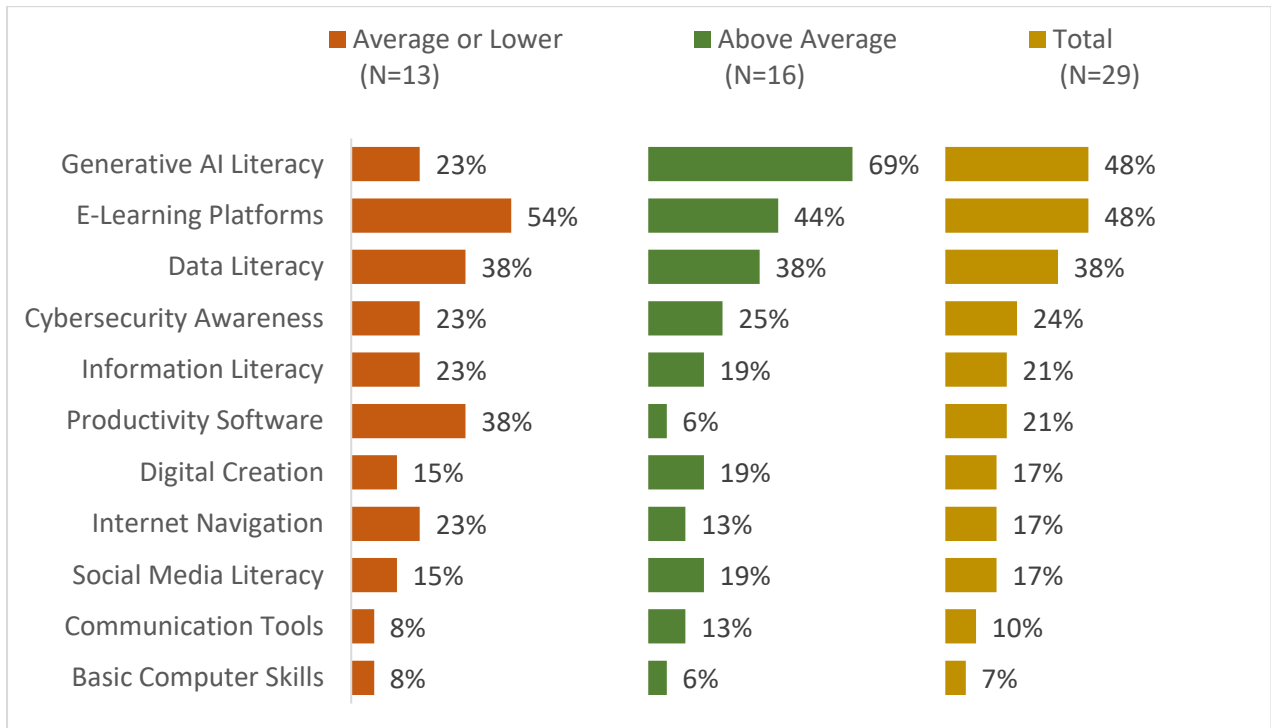
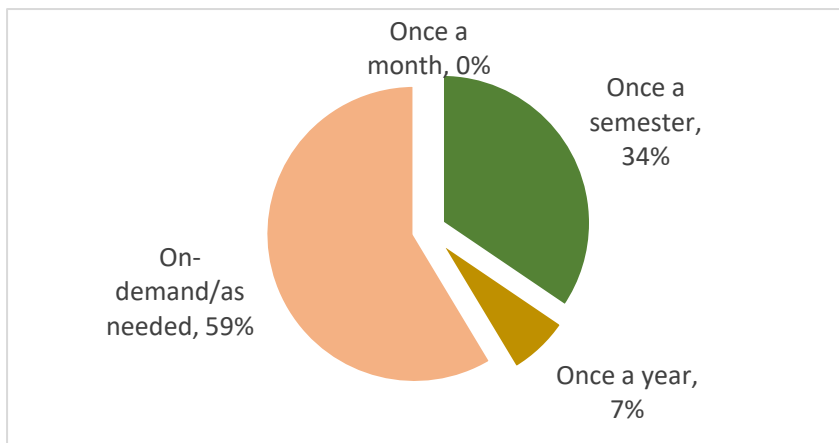


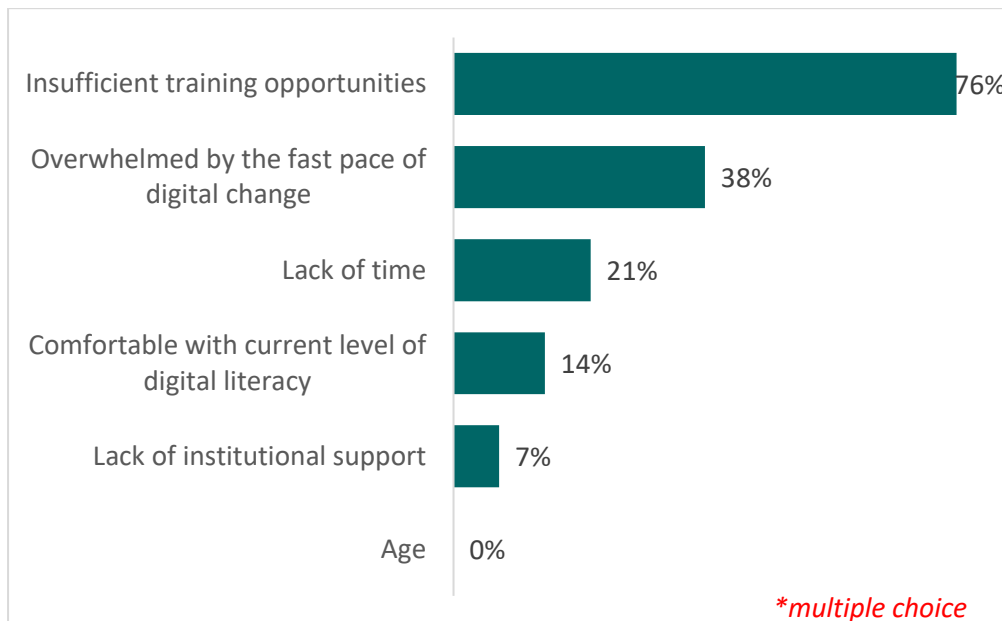
Figure 17: Lectures - Frequency of desired training



59% of the lectures at the Fan S. Noli University declare that they would like to receive Digital Literacy training “On-demand/As needed”. One-third of the respondents say they want those kinds of trainings once a semester (34%).

When asked about barriers to improving their Digital literacies skills, 76% declared that there are Insufficient Training Opportunities, 38% “Overwhelmed by the fast pace of digital change, 21% “Lack of Time” and 7% “Lack of Institutional Support”. About 14% of the respondents declare that they are comfortable with their current level of digital literacies.

Figure 18: Lectures - Barriers to attending training sessions



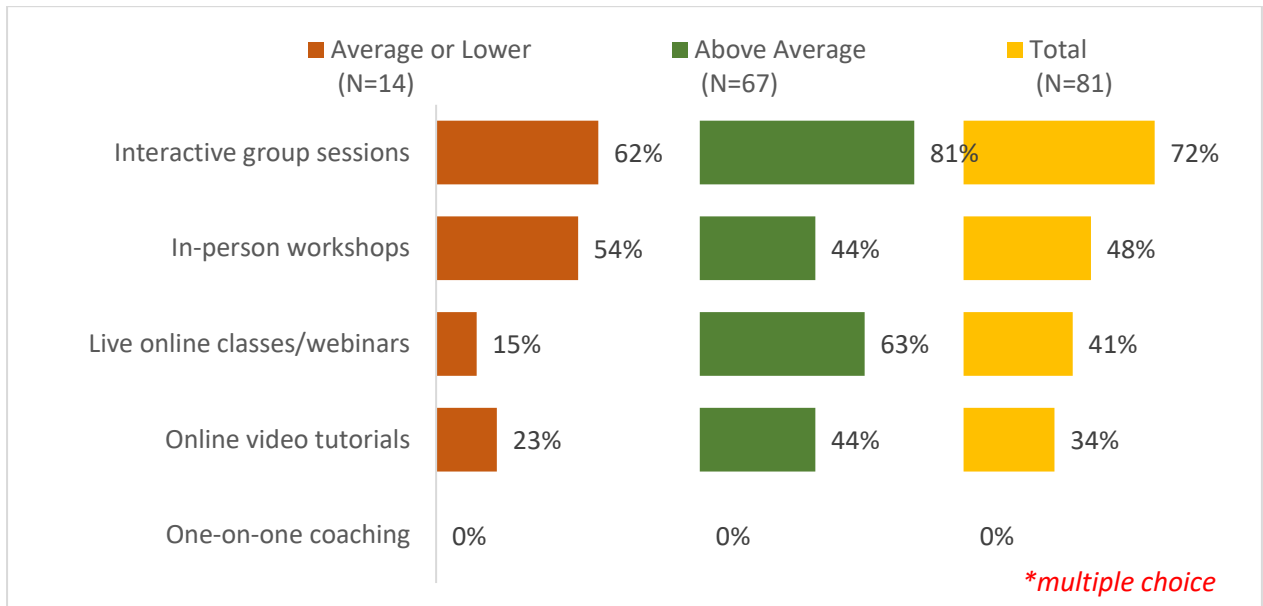
Preferred Training

About 72% of respondents prefer Interactive Group Sessions related to Digital Literacies. Here is a large difference between lectures with less knowledge about Digital Literacies and those with a higher level of knowledge. About 62% of lecturers who have an average or lower level of knowledge in Digital Literacy would prefer to be part of Interactive Group Sessions, compared to 81% of those with a higher level of knowledge.

The largest difference results in Live Online classes/webinars (it is preferred by only 15% of lecturers with an average or lower level of Digital Literacies Knowledge, compared to 63% for those with a higher level of knowledge).

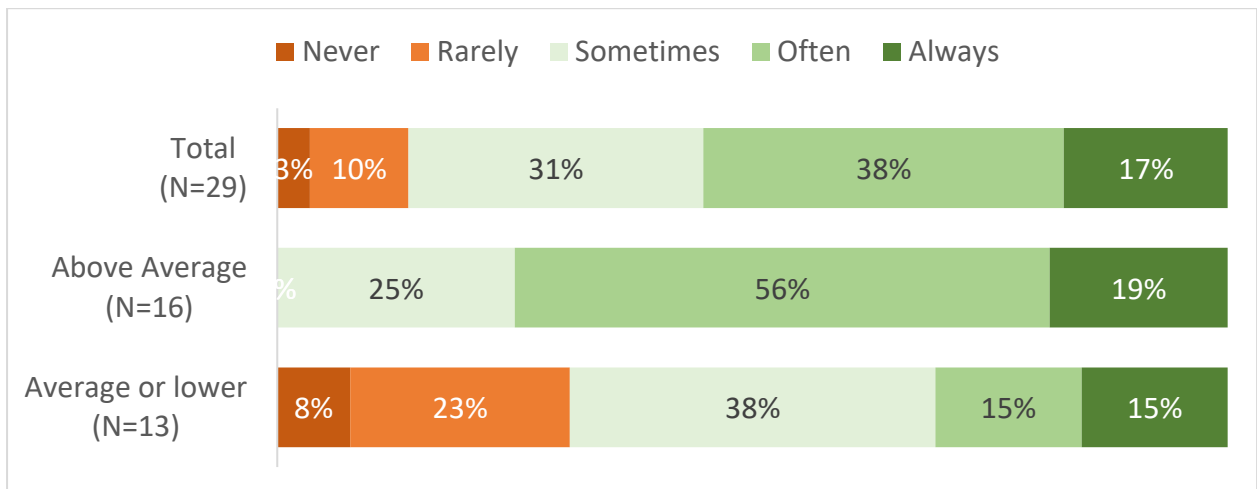
On the same line, the qualitative approach findings show that lecturers prefer more face-to-face trainings compared to online ones. The need for trainings according to the lecturers is huge, because of the lower level of knowledge in this area.

Figure 19: Lectures - Proffered formats of Digital Literacy training



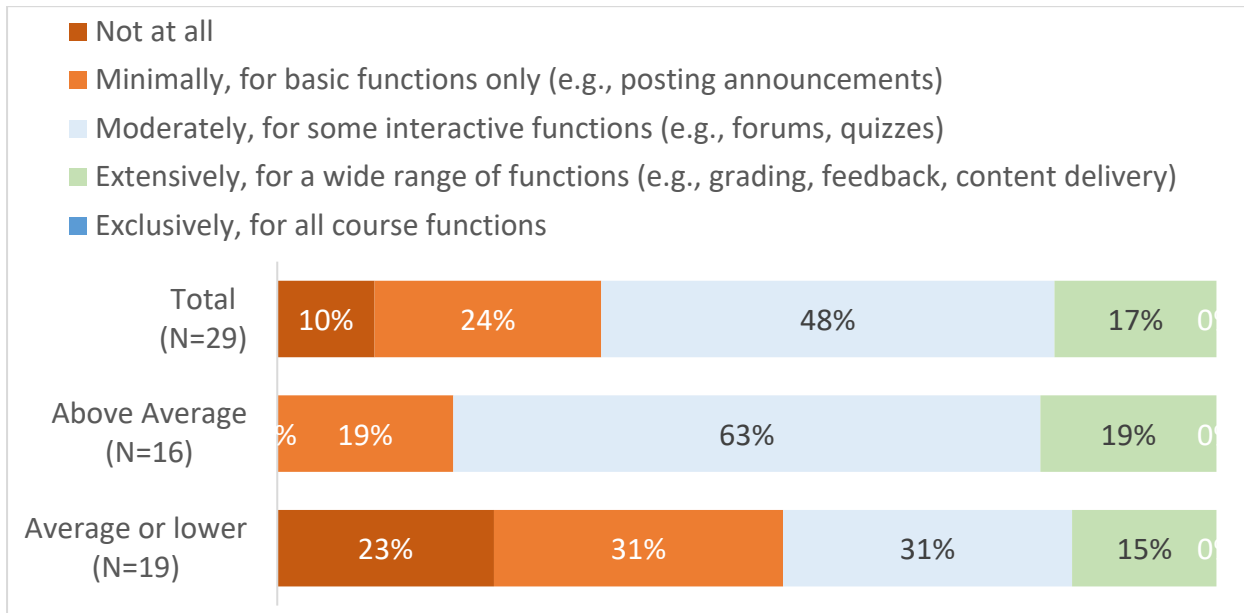
When Lecturers were asked how often they use digital tools in their teaching, 17% declared to always use them (19% of those with a higher level of knowledge on Digital Literacies compared to only 15% of others). About 31% of the lecturers with an average or lower level of Digital Literacies Knowledge level never or rarely use digital tools in their teaching, compared to 0% of other lecturers with a higher level of knowledge.

Figure 20: Lectures - Frequency of desired training by overall Digital Literacies Knowledge level



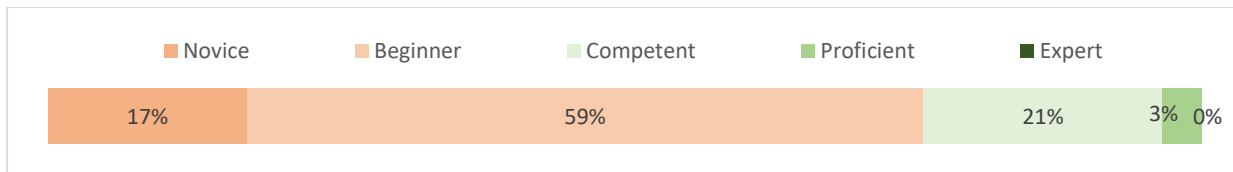
Lecturers were asked to what extent they integrate learning management systems in their courses. About 10% declared that they never integrated them. Disaggregation by the level of overall knowledge of digital literacy shows that 23% of lecturers with a lower level of overall knowledge never integrate a learning management system, compared to 0% of those with a higher level of knowledge. Furthermore, 31% of lecturers with an average or lower level of overall knowledge of Digital literacies integrate learning management system minimally, only for basic functions, compared to 19% of those with a higher level of knowledge.

Figure 21: Lecturer - Usage of Learning Management Systems in the Lecturer Courses



Results show that in using AI and machine learning tools, only 3% of lecturers consider themselves as “Proficient”, and 21% as “Competent”. On the other hand, 76% consider them self as “Beginner” or “Novice”

Figure 22: Lecturer - Usage of AI and machine learning tools



Only 10% of the lecturers who consider themselves proficient (Competent, Proficient, or Expert) in AI and machine learning tools always utilize them. On the other hand, 31% “never” or “rarely” utilize them in their research activities. No share of beginners often utilizes AI and machine learning tools in their research activities, compared to 43% of the lecturers who consider themselves proficient (results are only indicative due to the low number of observations).

Figure 23: Lecturers - Usage of AI or learning machines by knowledge level of them

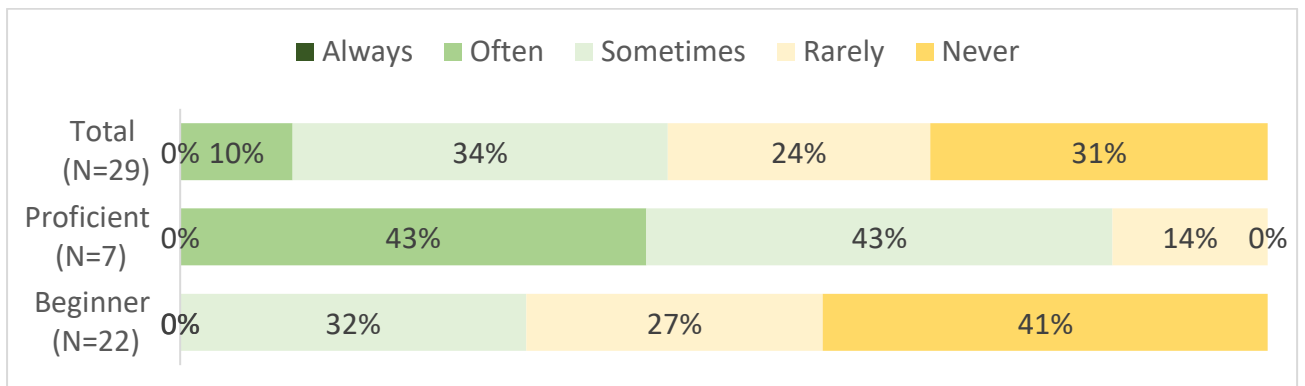
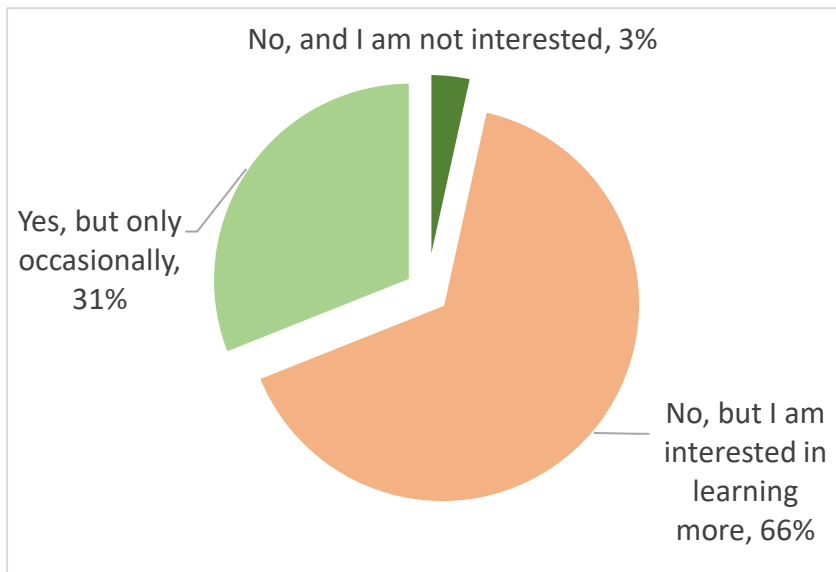


Figure 24: Lecturer - Usage of AI-based tools for personalizing learning or student engagement



On the other hand, only 31% of the lectures have occasionally used AI-based tools for personalizing learning or student engagement at the University of Fan S Noli.

About 66% of the lecturers declare that they have not used AI-based tools for personalizing Learning or Student engagement, but they are interested in learning more.

When Lectures are asked how interested they are in incorporating AI/machine learning into their curriculum, 31% are “very interested”, and 38% are “interested”.

Figure 25: Lecturer - Level of interest in incorporating AI/machine learning into their curriculum

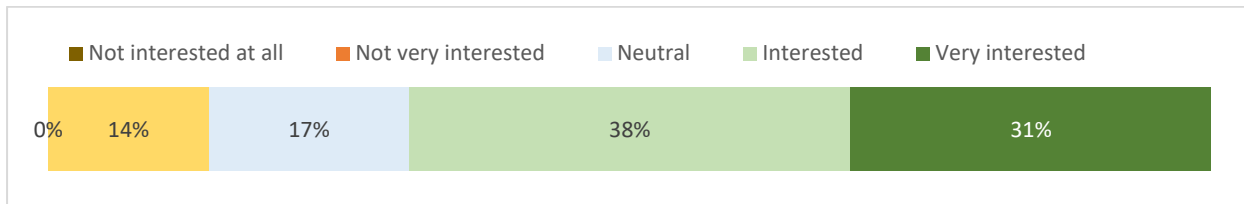
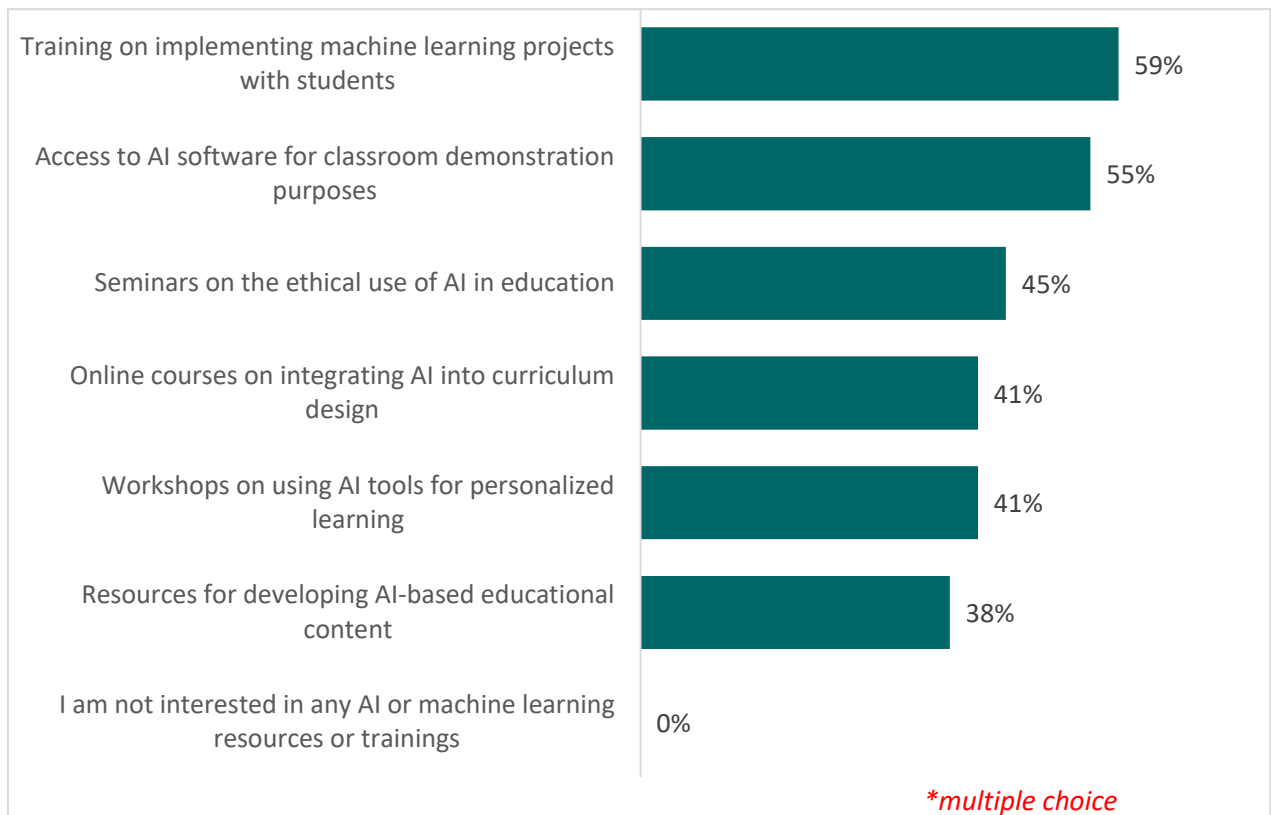


Figure 26: Lecturer - Desired resources or training that lecturers are interested in having access to improve their teaching



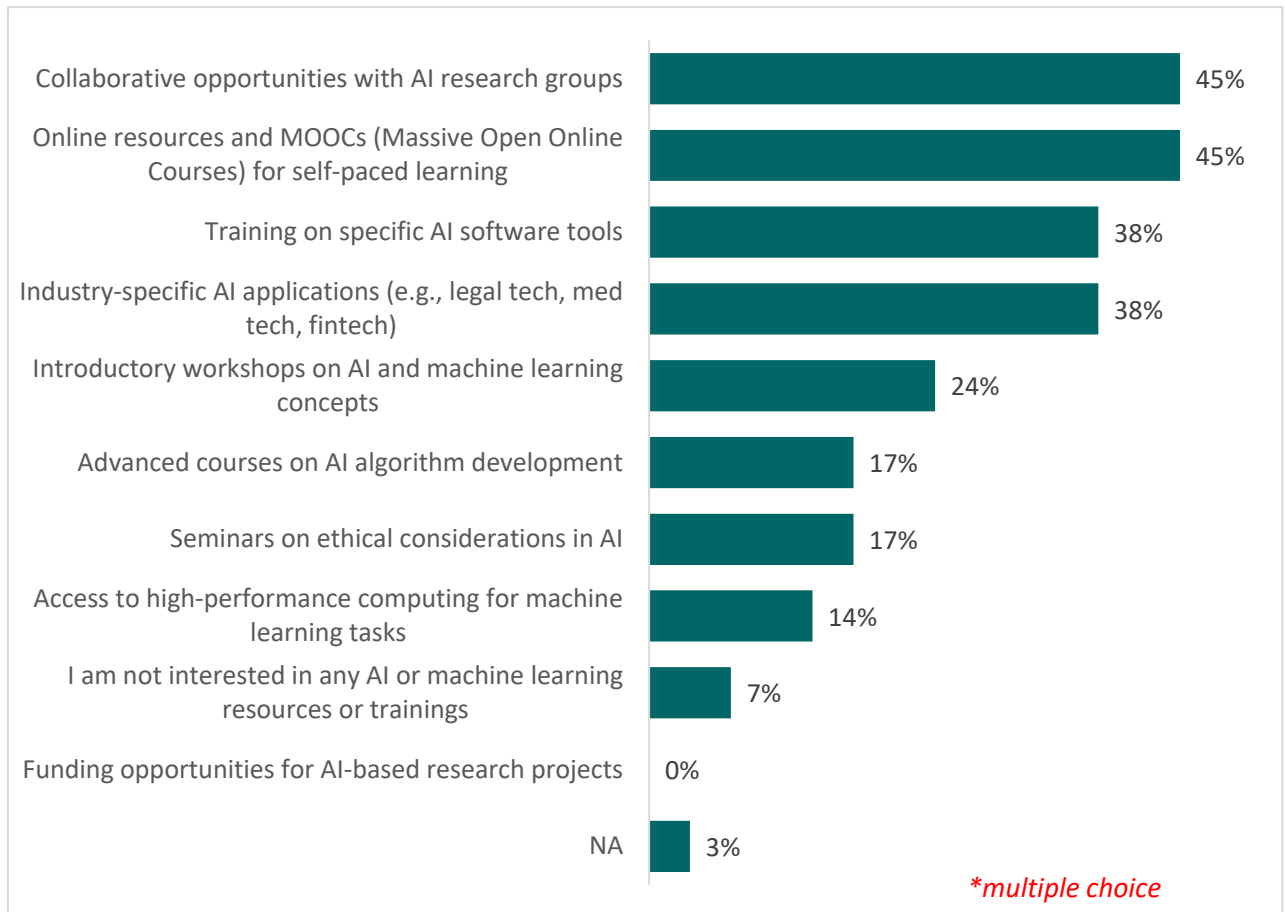
About 59% of the lecturers wish to have training on implementing machine learning projects with students, so they can improve their teaching. Also, 55% of them want to have access to AI software for classroom demonstration purposes, 45% want to have Seminars on the ethical use of AI in education and the same percentage want to have Workshops on using AI tools for personalized learning.

Lecturers who declare to not be interested in any AI or machine learning resources or trainings are 0%.



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Figure 27: Lecturer - Desired resources or training that lecturers are interested in having access to improve their research



About 45% of the lecturers are interested in Collaborative opportunities with AI research groups, and on Online resources and MOOCs, so they can improve their research.

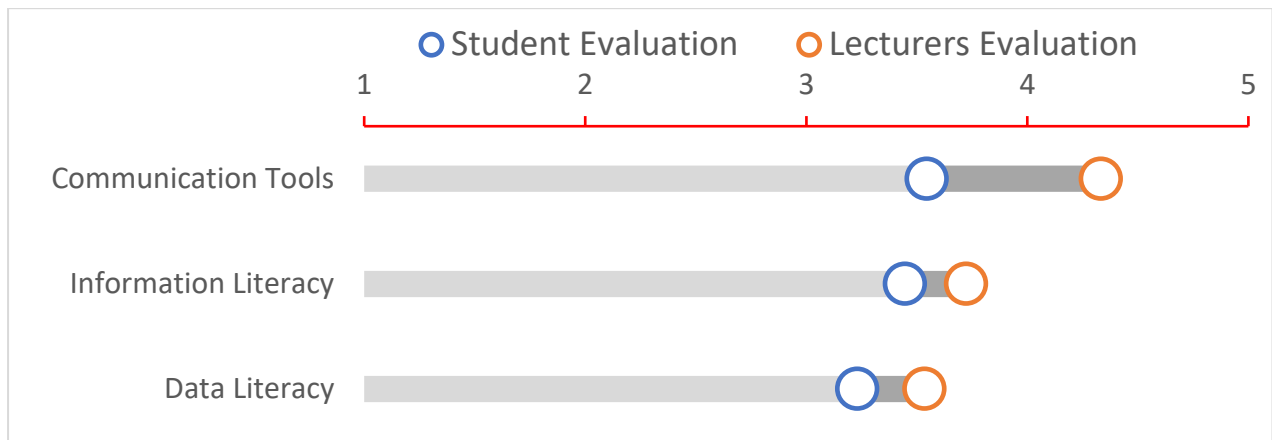
About 38% of the respondents are interested in training on specific AI software tools and in industry-specific AI applications.

On the other hand, only 7% of the respondents are not interested in any AI or machine learning resources or training to help them improve their research.

To capture different perspectives on the evaluation of knowledge in Digital literacies, in this study we have asked 3 similar questions to students for lecturers and the opposite. In opposite to how lecturers evaluate themselves on Digital literacies, students think they have a lower level of knowledge. There is a significant difference in all the three questions that were asked to students and lecturers.



Figure 28: Comparison of evaluation for Lecturers' knowledge, Student and Lecturer evaluation



Focus Group: Findings from Focus Groups show that all lecturers want to be part of Digital literacies training, because they declare to have a pre-intermediate level of Digital literacies knowledge.

Focus Groups were conducted with stakeholders and administrative staff, and not only with students and lecturers. This way we can see the stakeholders view of the situation to better prepare students and lecturers for the demands of the contemporary digital landscape.

For stakeholders the most important is the collaboration between them and the university. Lecturers according to them should be trained in adapting to new digital platforms and at there is a lack of hardware infrastructure at pre-university schools.

IV. CONCLUSIONS

University according to students should adapt the curricula for the digital future (to integrate digital tools, Ao applications and relevant technologies into the curricula.

Regarding the trainings, findings show that students think that university should facilitate face-to-face trainings over online trainings, to encourage collaboration and group work. Apart of good thing of technology, students are also concerned about the misuse of AI, lack of awareness about the effective AI use, and about the impact of AI on motivation and learning. For these reasons students suggest that university should promote ethical use of AI, and do trainings to address privacy and security concerns.

Lecturers of the Fan S. Noli University recommend that they need:

- Financial Support (if they have financial support, they can buy applications license and use them during the teaching)
- Improved infrastructure (new computer, not the old ones who are slow and old fashioned)
- To have appropriate online platforms for different fields of study
- Full access on online libraries
- Training about Digital literacies and to help the staff.



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Stakeholders recommend:

- Establishment of a strong university-business collaboration (they propose to create a university website where to connect students with their job opportunities). Also, they propose to create a communication platform which will serve as a communication bridge between university, business and other institutions.
- Enhance online libraries
- Explore audiobooks for education and proportion of podcasts
- Exploration of funding opportunities such as Horizon Europe to support the development and implementation of collaborative projects.
-

Stakeholders highlight the need to recognize the challenges faced by students from rural areas, so the digital platforms (that will be in the future) will provide equal opportunities for students regardless their geographic location.





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University to Society Collaborations for Inclusive Digital Transformation in the Western Balkans

Report

NEEDS ASSESSMENT SURVEY OF DIGITAL LITERACIES IN U2SID PARTNER UNIVERSITY OF SHKODRA “LUIGJ GURAKUQI”





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This report is prepared by the Center Science and Innovation for Development (SCiDEV)

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Tirana, Albania, January 2024

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EXECUTIVE SUMMARY

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PROJECT SNAPSHOT

Project Title	University to society collaborations for inclusive digital transformation in the Western Balkans
Project's acronym	U2SID
Webpage	[insert project website]
Project's budget	EUR 398,650.00
Funded by	Erasmus+ Programme Capacity building in Higher Education
Project number	101083131
Project duration	24 months
Project Coordinator	University of Shkodra Luigj Gurakuqi
Countries involved	Albania; Serbia; Montenegro; Italy
Project partners	<p>University of Shkodra Luigj Gurakuqi</p> <p>University „Fan S. Noli” of Korca</p> <p>Mediterranean University of Albania</p> <p>Center Science and Innovation for Development</p> <p>Center for Comparative and International Studies</p> <p>National Agency for Scientific Research and Innovation</p> <p>University of Montenegro</p> <p>University of Belgrade</p> <p>University of Salento</p>
Aim and objective	<p>Project's aim: To foster inclusive digital transformation in the Western Balkans through increased collaboration between universities with other stakeholders such as businesses, policy makers, civil society, and media.</p> <p><i>The specific objectives of U2SID are:</i></p> <p>SO1 – To strengthen digital competences of teachers, students, and professionals through the development of a Digital Literacies Acceleration Programme as a collaborative programme among universities on one side and businesses, civil society, local decision makers and media on the other.</p> <p>SO2 – To improve innovative teaching methods through piloting a Digital Transformation Challenge for students as a project-based and solution-oriented learning based on mentoring, coaching and placement at businesses, civil society, local decision makers and media.</p> <p>SO3 – To raise awareness on the importance of inclusive digitalisation by including vulnerable target groups in the digitalization process.</p>





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ABBREVIATIONS

CCIS	Center for Comparative and International Studies (Qendra për Studime Krahasuese dhe Ndërkombëtare)
EACEA	European Union or European Education and Culture Executive Agency
EU	European Union
NASRI	National Agency for Scientific Research and Innovation (Agjencia Kombëtare e Kërkimit Shkencor dhe Inovacionit)
PSC	Project Steering Committee
SciDEV	Center Science and Innovation for Development (Qendra Shkencë dhe Inovacion për Zhvillim)
U2SID	University to society collaborations for inclusive digital transformation in the Western Balkans
UCG	University of Montenegro (Univerzitet Crne Gore)
UMSH	Mediterranean University of Albania (Universiteti Mesdhetar i Shqipërisë)
UNIBELGRADE	University of Belgrade (Univerzitet u Beogradu)
UNIKO	University „Fan S. Noli” of Korca (Universiteti i Korçës "Fan S. Noli")
UNISALENTO	University of Salento (Università del Salento)
UNISHK	University of Shkodra Luigj Gurakuqi (Universiteti i Shkodrës “Luigj Gurakuqi”)
WP	Work Package





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I. INTRODUCTION

The U2SID project aims to drive inclusive digital transformation in higher education in Western Balkans by fostering collaboration between universities, businesses, policymakers, civil society, and media. It emphasizes safe digitalization through enhancing awareness and capacity in privacy, data protection, and digital literacies, thus promoting digital rights. The aim of the project is to foster inclusive digital transformation in the Western Balkans through increased collaboration between universities with other stakeholders such as businesses, policy makers, civil society, and media.

The U2SID project's specific objectives encompass three key areas. Firstly, it focuses on enhancing digital competencies among teachers, students, and professionals via a Digital Literacies Acceleration Programme. This program promotes collaboration between universities and various stakeholders like businesses, civil society, and media. Secondly, it aims to advance innovative teaching methods through the Digital Transformation Challenge, offering project-based, solution-oriented learning with mentorship and professional placements. Lastly, it emphasizes raising awareness about inclusive digitalization, particularly targeting and including vulnerable groups in the digitalization process.

In this light, the central objective of this research exercise is to evaluate the current state of digital literacies among two primary groups within the academic sphere: lecturers and students in 4 partner universities of the U2SID project, namely: University of Shkodra “Luigj Gurakuqi”, University of Korça “Fan S. Noli”, Mediterranean University of Albania and University of Montenegro. The study recognizes the increasing role those digital competencies play in both delivering and accessing higher education. By assessing the needs, the study intends to identify gaps in knowledge, skills, and infrastructure that may be hindering the effective use of digital tools and resources in teaching and learning environments in the universities involved in this project in Albania and Montenegro.

Furthermore, the study seeks to incorporate diverse perspectives by engaging with stakeholders who are directly or indirectly impacted by the digital literacies of lecturers and students. These stakeholders may include administrative staff, IT personnel, policy makers, and employers. The input from these groups will provide a multi-dimensional understanding of digital literacies needs, expectations, and the potential barriers to implementing digital literacies programs.

II. METHODOLOGY

The methodology for this need assessment exercise on digital literacies at university level is crafted to facilitate an understanding of the subject within academic contexts of partner universities involved in the project and to inform with evidence the next activities to be implemented by the project partners such as the Digital Literacies Accelerator Programme and Digital Transformation Challenge. This approach embraces both quantitative and qualitative data collection methods, harmonizing them to draw a reliable picture of the digital literacies needs and gaps in these the academic context of University of Shkodra “Luigj Gurakuqi”. The study was conducted in November and December 2023 and the data analysis in January 2024.

Central to the quantitative dimension of our research are online questionnaires with a total of 152 students surveyed and 49 lecturers. These instruments are designed to quantitatively assess lecturers’ and students’ self-reported competencies in digital literacies, their habitual use of digital resources, their preferences for certain technologies, and their perceived needs for further support and





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development. Ensuring a representative sample in each partner university is important; therefore, the study encompasses a diverse cross-section of departments, faculties, and educational levels both Bachelor and Masters. Subsequent statistical analyses scrutinize this quantitative information to identify prevalent patterns and trends, which provide insights for recommendations for the next activities to be implemented by the project partners.

Parallel to this, the qualitative component through structured focus group discussions delves into the more subjective dimensions of digital literacies. These sessions are planned to reveal the attitudes, personal experiences, and the various contextual factors that shape individuals' engagement with digital tools and resources. Discussion guides, prepared in advance and based on literature reviews, steered conversations to meaningful depths. The discussions were then transcribed in detailed focus group reports by each partner university. 3 focus groups were organized by with lecturers, students, and stakeholders, with a total of 34 participants.

The integration of quantitative and qualitative data is necessary for the cross-verifying data points but also minimizes the biases that any single method might introduce. The findings of the need assessment are relevant for participating partner universities and cannot be generalized to entire academic contexts in Albania and Montenegro.

The online questionnaire and focus group guidelines, used this “Digital literacies” definition:

- Basic Computer Skills: Using an operating system, managing files, and understanding basic hardware.
- Internet Navigation: Using search engines, evaluating online sources, and understanding internet safety.
- Productivity Software: Proficiency in word processing, spreadsheets, and presentation software.
- Communication Tools: Email, instant messaging, video conferencing, and collaboration platforms.
- Digital Creation: Basic photo editing, video production, or website creation.
- Information Literacy: Finding, evaluating, using, and citing digital information.
- Cybersecurity Awareness: Understanding of personal data protection, password security, and awareness of phishing scams.
- Social Media Literacy: Creating content, understanding digital footprints, and privacy settings.
- Data Literacy: Understanding of data collection, analysis, and interpretation.
- E-Learning Platforms: Navigating online learning systems and digital libraries.





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III. DATA ANALYSIS AND FINDING

The study investigates digital literacies among students and lecturers at University of Shkodra “Luigj Gurakuqi” of Albania. In total part of the study were surveyed 152 students, (18% males and 82% females; 55% living in urban areas and other 45% in rural areas), and 49 lecturers (18% males and 82% females). The margin of error for the student’s study is 7.8%, meaning that the confidence interval of every result is $\pm 7.8\%$.

Data Analyses are conducted using IBM SPSS. Data for students are weighted in order to be representative of the total students of the university. This was done so the contribution of male and female respondents was proportional to the real population of the total students of the university.

1. FINDINGS

This section of the report is structured around three primary components: firstly, it presents both quantitative and qualitative findings related to students; secondly, it delves into similar types of data concerning lecturers; and thirdly, it incorporates qualitative insights obtained from focus groups with various stakeholders.

2.1 Findings regarding students

The results from the University of Shkodra “Luigj Gurakuqi”, show that half of the students lack ability in the Digital Creation (Website creation). About 50% of the students declare to have “no proficiency” or “limited proficiency” in the Website Creation. Almost 37% of the University of Shkodra “Luigj Gurakuqi”, Students do not have Productivity Software Skills (Proficiency on Spreadsheets). Also, about 36% of the respondents say that they have “no proficiency” or “limited proficiency” in Video production.

On the other hand, fewer students declare to have “no proficiency” or “limited proficiency” in Instant messaging as a communication tool (only 15%), in Information Literacy (18%), in Email as a communication tool (18%), on the Social Media Literacy (20%).

The data used for the total students of the University of Shkodra “Luigj Gurakuqi”, are weighted so the results would be representative of the whole students. The margin of error in this case is equal to 7.8%, so the interval of confidence is $\pm 7.8\%$ for all the results presented in this paper.

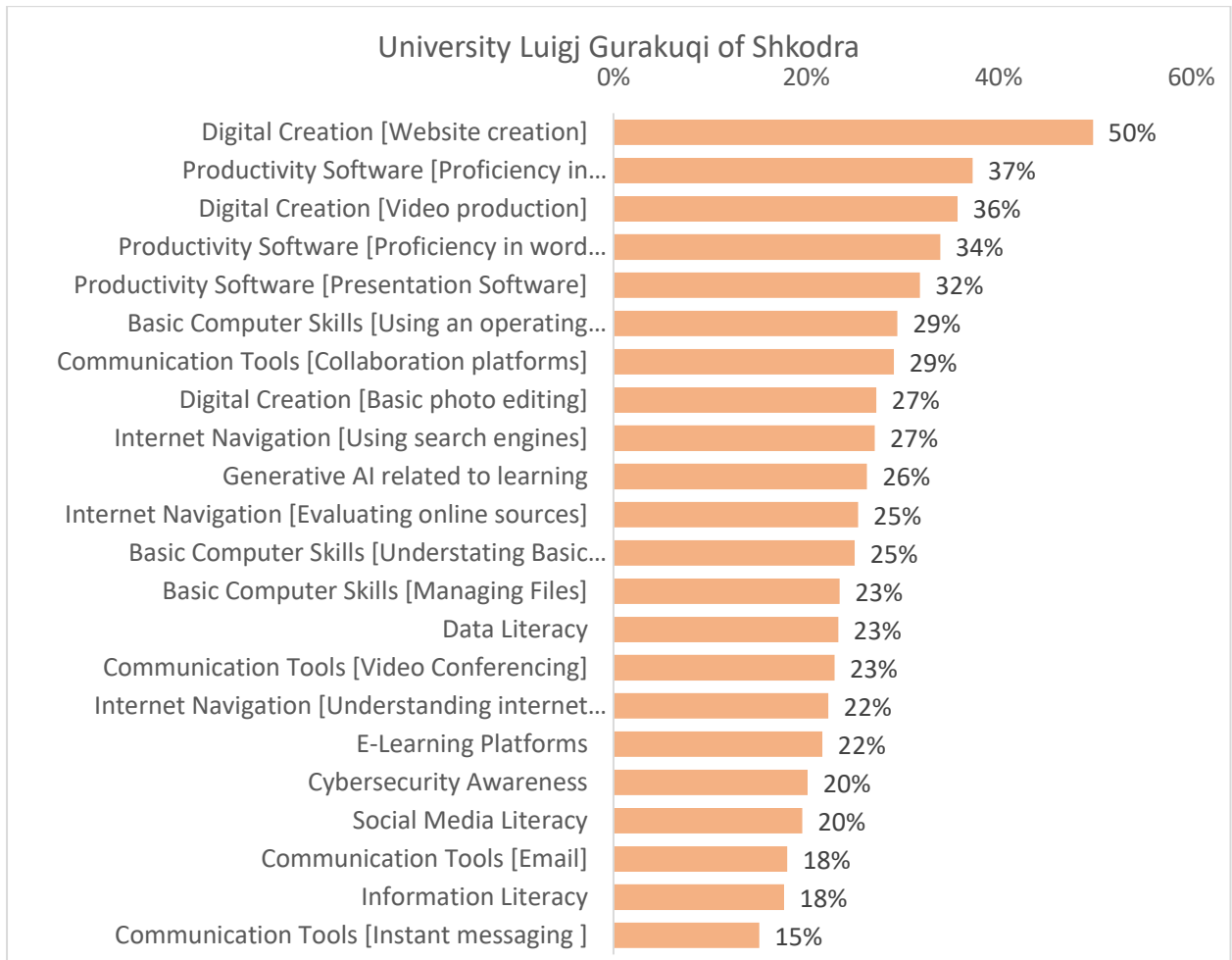
Focus Group results show that common digital tools that students use are Microsoft Office, Word, Power Point Presentation, Google forms, Python, Canva, Photoshop, Voice record, media networking platforms, and AI applications like ChatGPT. Regarding the educational platforms the mentioned ones are Microsoft Teams and Zoom.





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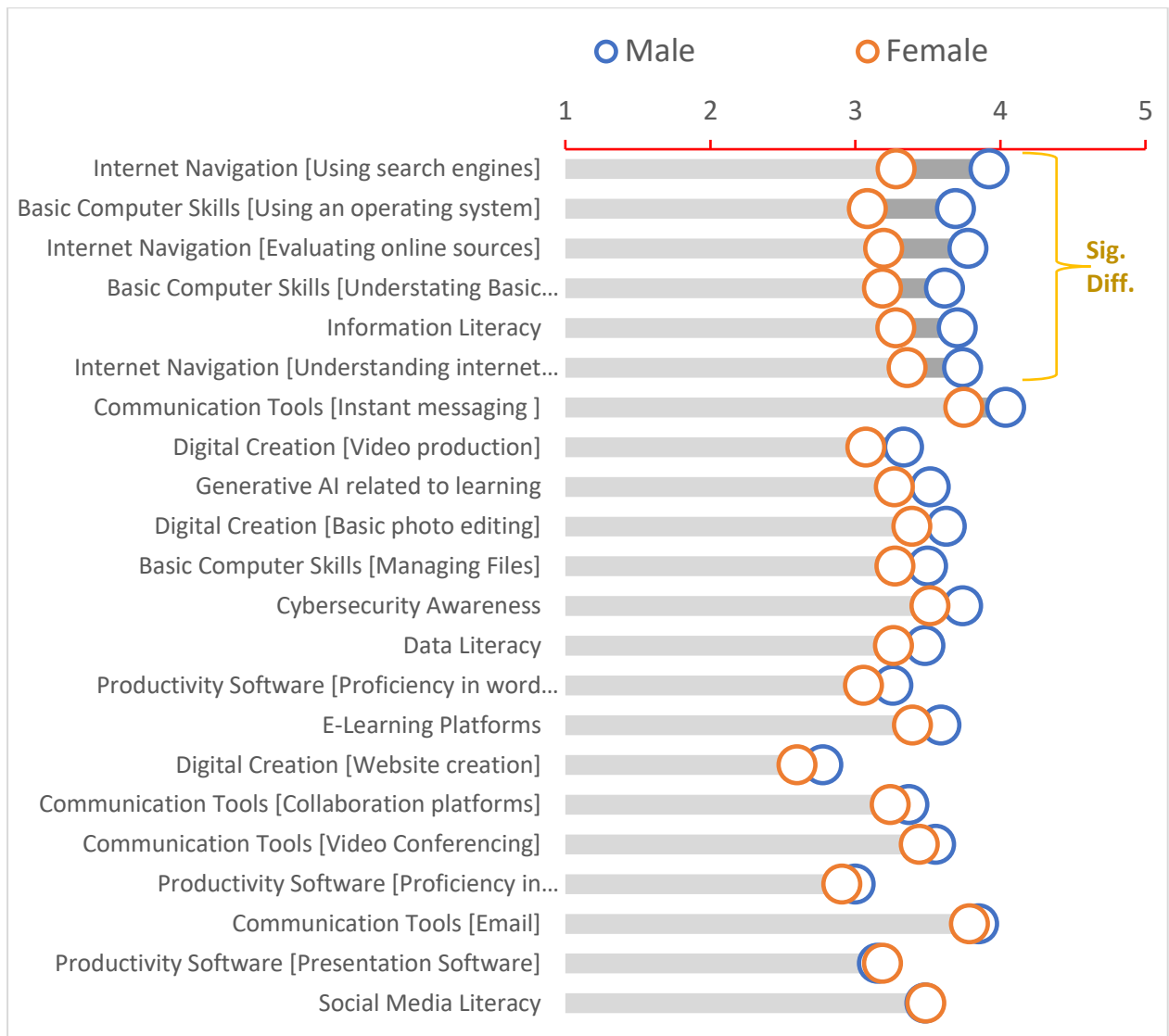
Figure 1: Students - Share of students who have “no proficiency” or “limited proficiency” in Digital Literacies.



When we check if there are significant differences related to the gender of the students, it can be shown that overall males tend to have a higher level of knowledge on Digital Literacies. The largest differences are shown in Internet Navigation (Using search engines), and in Basic Computer Skills (Using an Operating System).

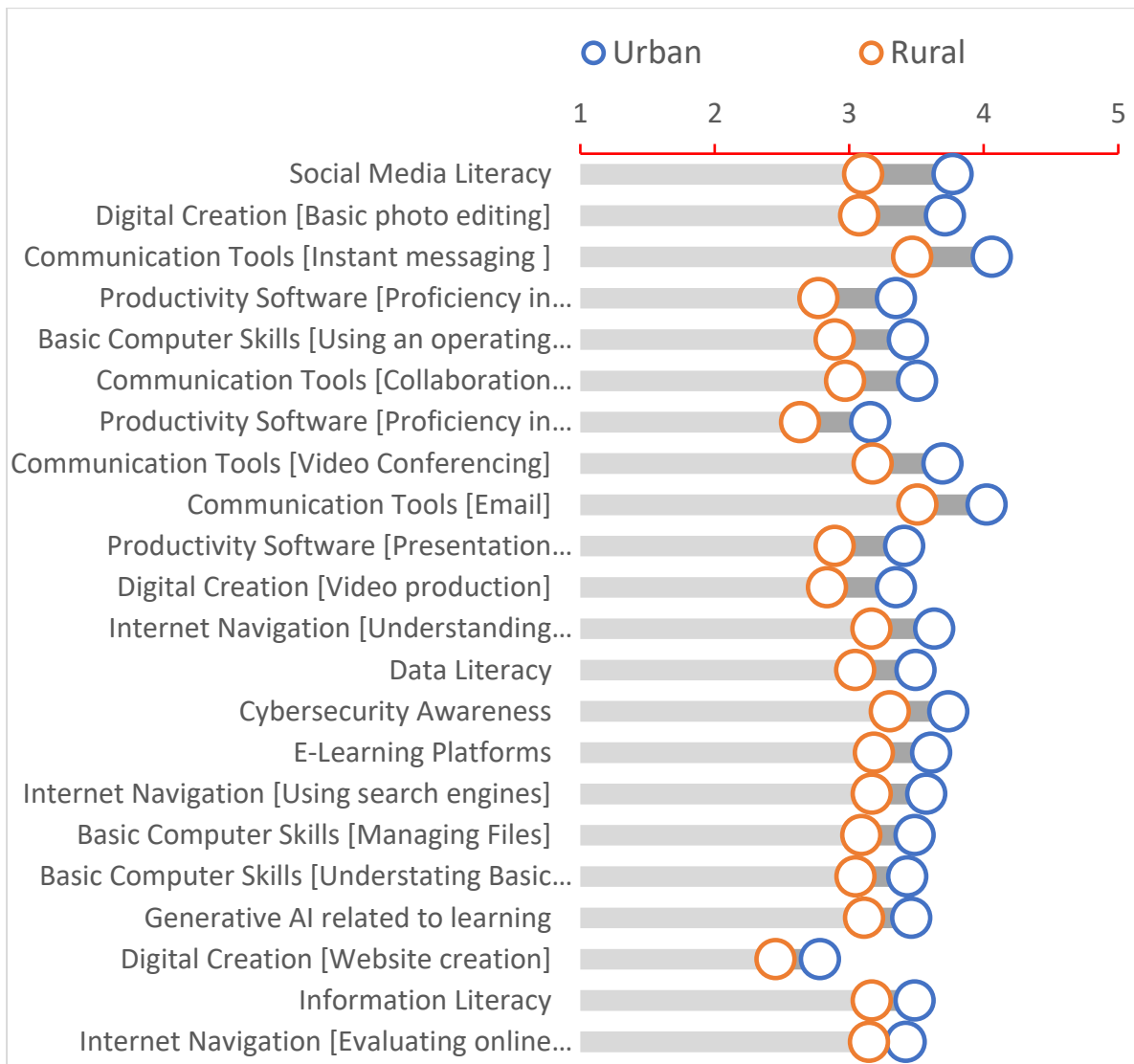


Figure 2: Students - Level of knowledge on Digital Literacies by gender



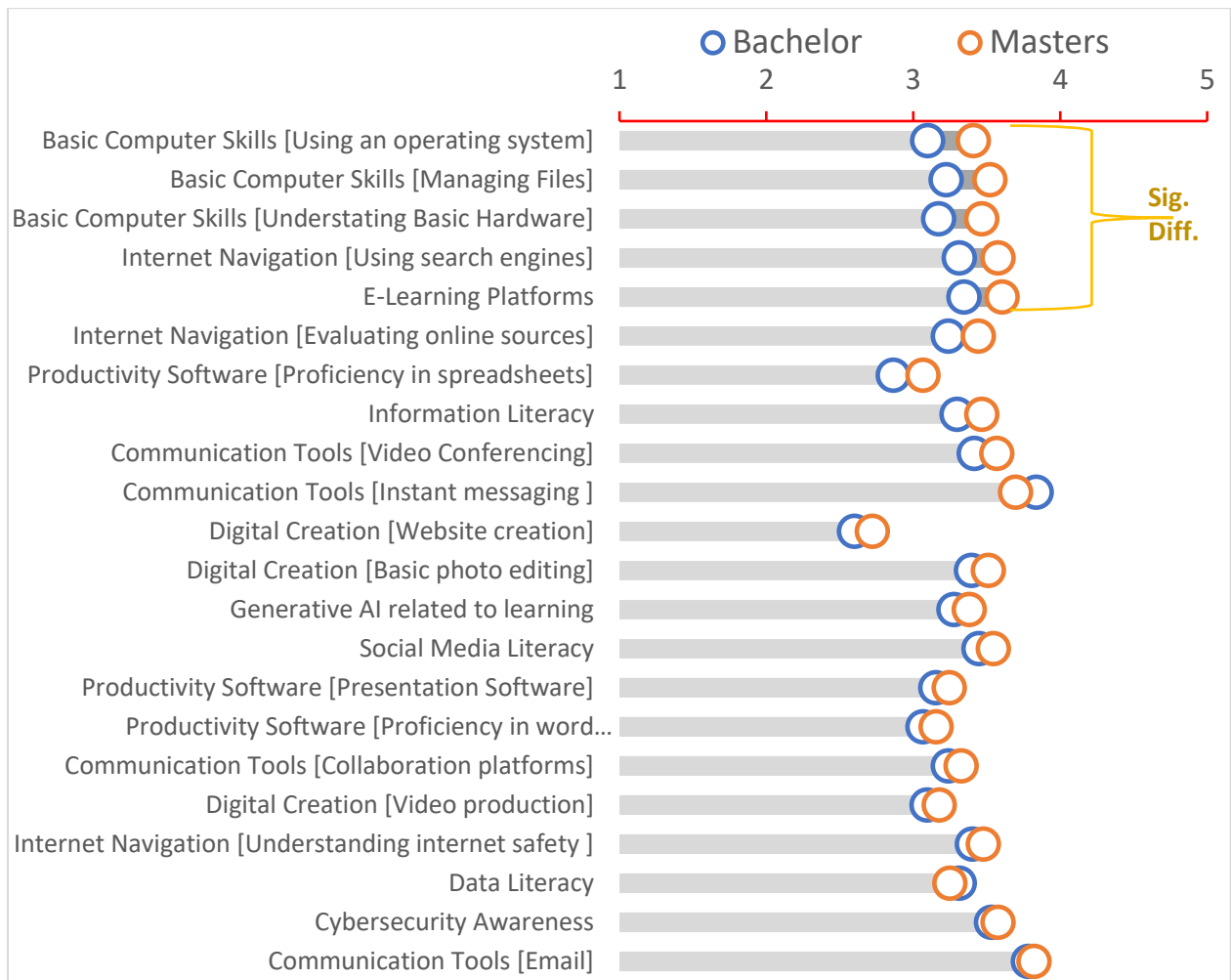
Results by Urbanity show that respondents from urban areas have a significantly higher level of knowledge on all the indicators used to measure Digital Literacies compared to respondents from rural areas. The largest differences are shown in Social Media Literacy, Basic Photo Editing, Instant Messaging, and so on.

Figure 3: Students - Level of knowledge on Digital Literacies by Urbanity



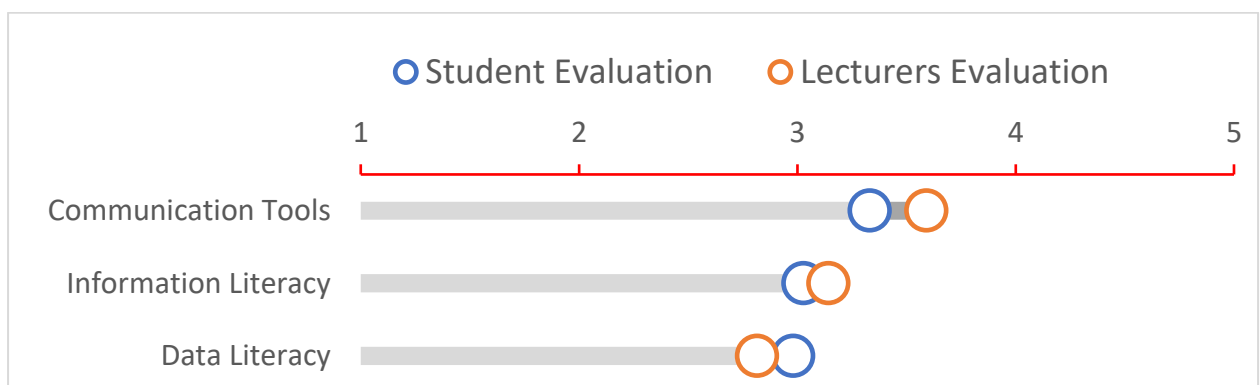
As expected, results by the level of degree show that Master Students tend to have a higher level of knowledge on most of the Digital Literacies Indicators. The largest difference is shown in Basic Computer Skills.

Figure 4: Students - Level of knowledge on Digital Literacies by degree



To capture different perspectives on the evaluation of knowledge in Digital Literacies, in this study we have asked 3 similar questions to lecturers for students and the opposite. As can be seen in the graph below, there is a difference in the evaluation of the Communication Tools, where lecturers tend to think that students have a higher level of knowledge compared to what they declared by themselves.

Figure 5: Students - Comparison of evaluation for Student knowledge, Student and Lecturers evaluation





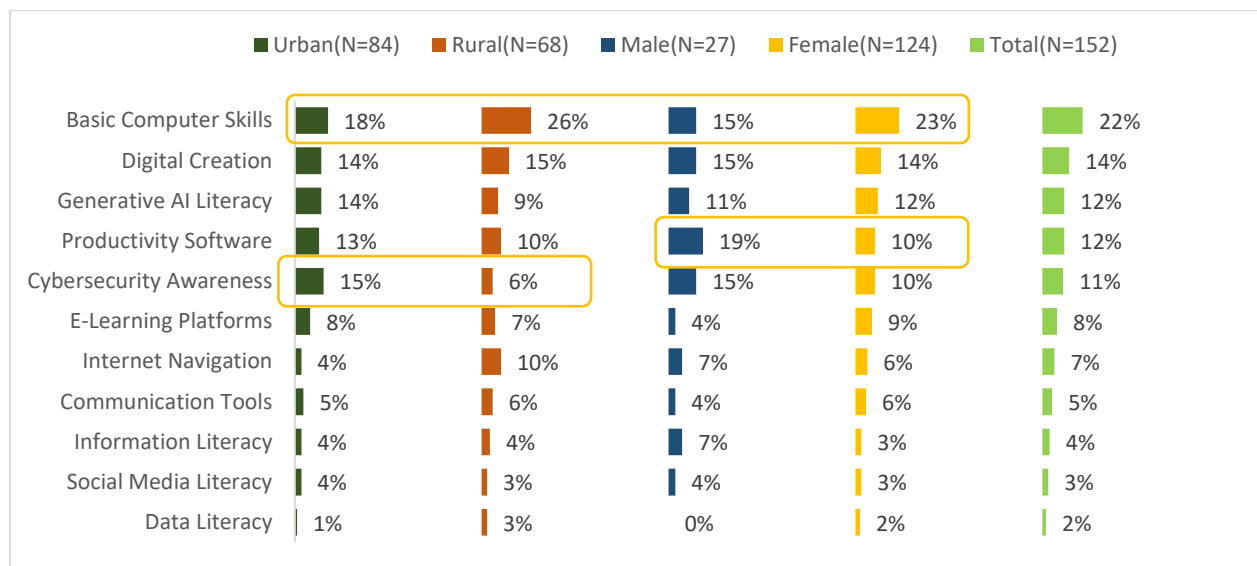
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When students were asked what specific Digital Literacies they were interested in improving, 22% chose Basic computer skills, 14% Digital Creation, and 12% Generative AI Literacy.

There are some differences between males and females, where females are more interested in improving Digital Creation, while men are interested more in Basic computer skills (23% vs 15% of male students). On the other hand, Male students are more interested in improving Productivity Software skills (19% of males vs 10% of females).

There are some differences related to the area where students live. The largest difference is in the interest of improving Cybersecurity Awareness (15% of students living in urban areas vs 6% of others in rural areas).

Figure 6: Students - Skills that students are interested in improving, by urbanity and gender



When asked about preferred formats of Digital Literacies Training, 40% of the respondents wanted In-Person Workshops. The second most preferred format of training by 41% of the students is Online Video Tutorials.

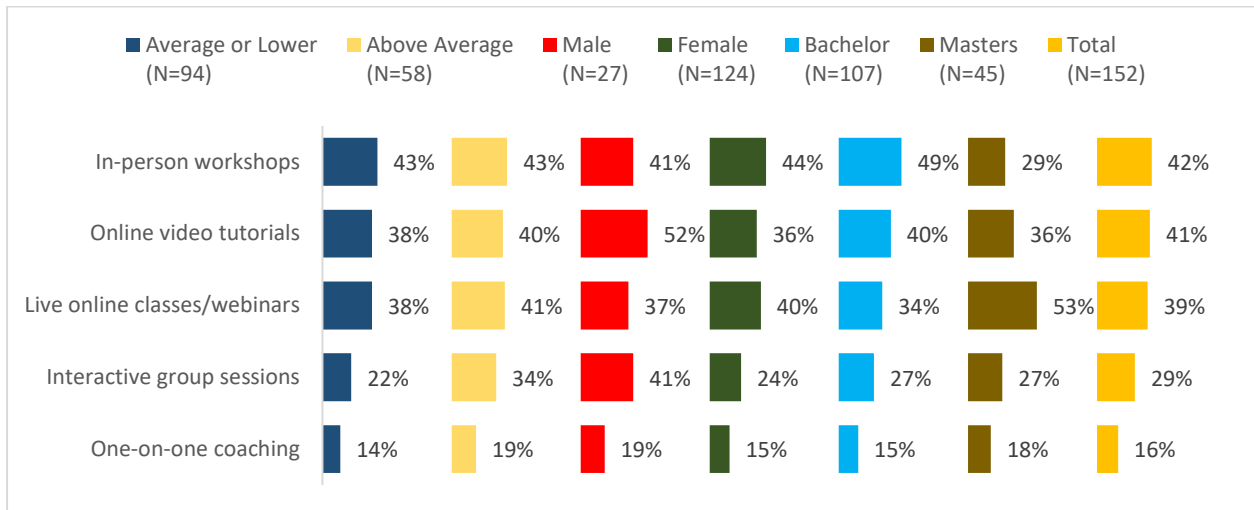
There is a large difference on the Online Video Tutorials as a preferred format by gender (52% of male students prefer it vs 36% of female students). Also, a large difference is regarding the preference of Interactive Group Sessions (41% of males vs 24% of females).

To measure what students of different levels of overall Digital Literacies knowledge want, we have created an indicator where students with an average or lower level of knowledge overall are separated from others with a higher level of knowledge. Students with a higher overall level of Digital Literacies Knowledge prefer more Interactive Training Sessions compared to others (34% vs 22%).

Students who were part of the Focus Groups preferred online trainings because they were more flexible.



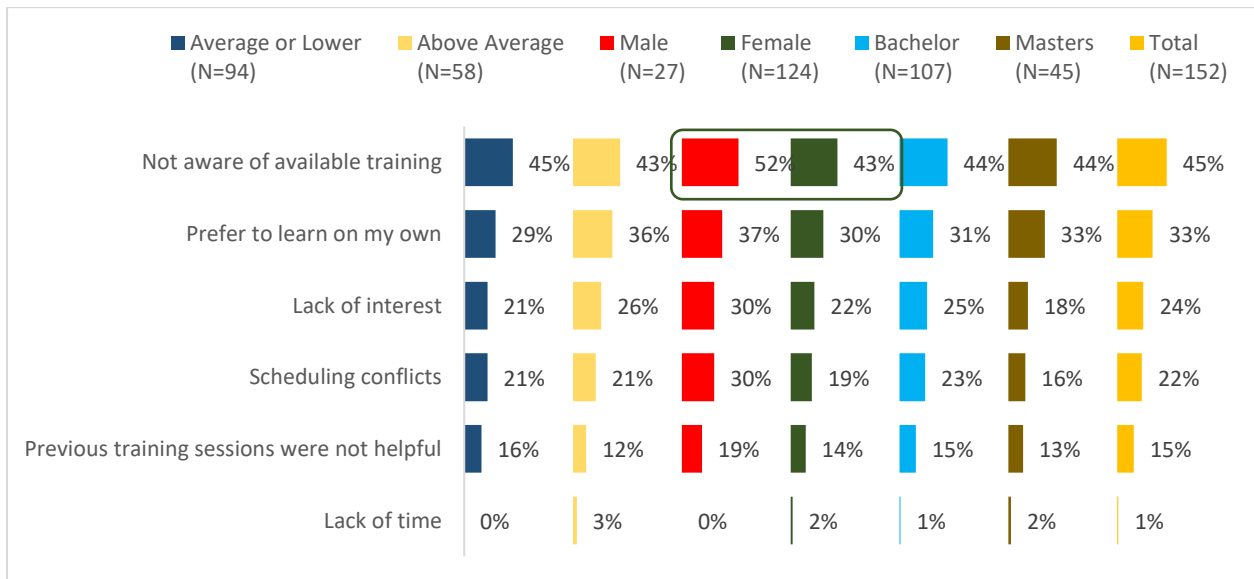
Figure 7: Students - Preferred formats of Digital Literacies, by degree, gender, and overall level of Digital Literacies knowledge



Students were asked about barriers to attending the training sessions. Awareness of available training was the main problem for more for almost half (45%) of the students. Next was that 33% of the students wanted to learn by themselves, and 24% have had lack of interest in trainings.

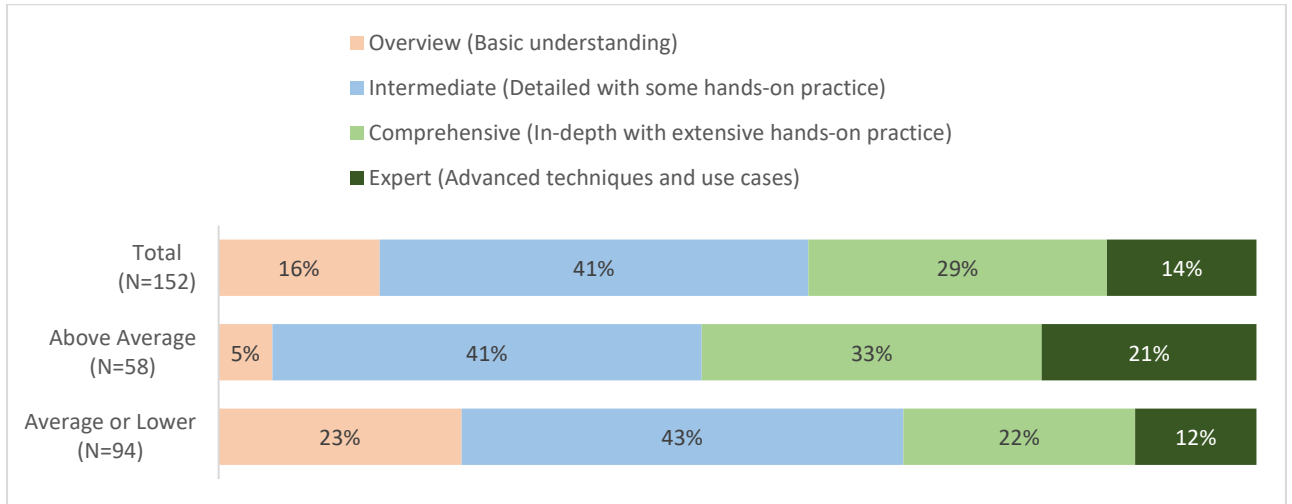
The largest difference between males and females is the awareness of available training (52% of males consider it as a barrier, compared to 43% of females).

Figure 8: Students - Barriers to attending training sessions by gender, degree, and the overall level of Digital Literacies Knowledge



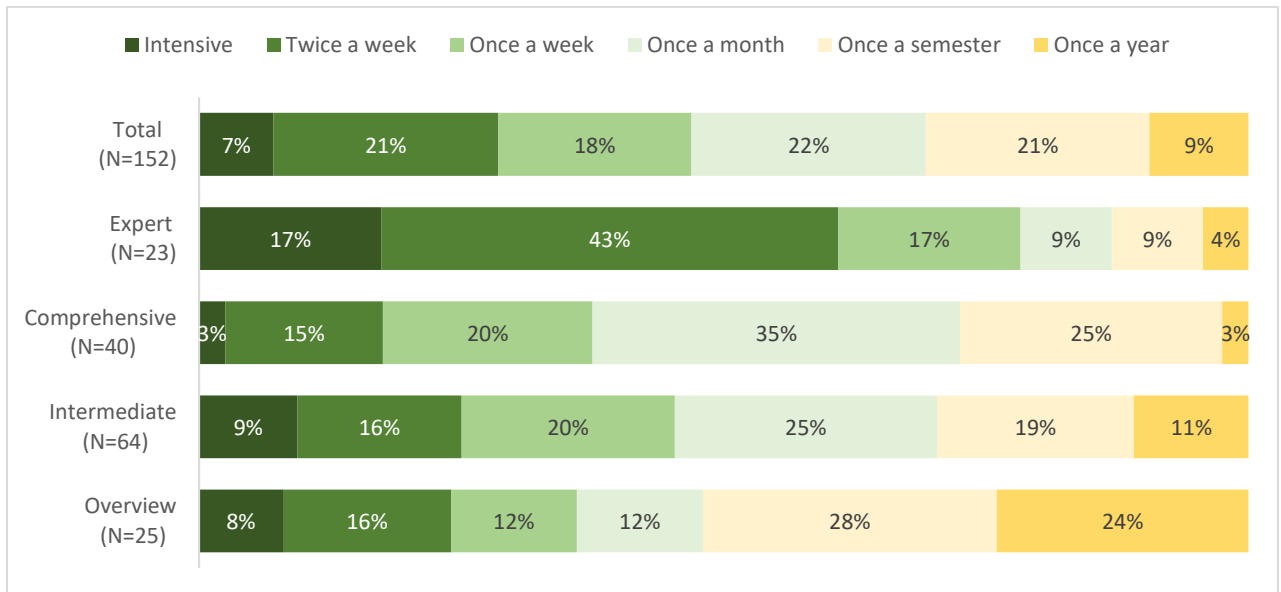
When asked about the preferred format of Digital Literacies training, 14% wanted expert-level training. More students with higher overall Digital Literacies knowledge prefer expert training 21% vs 12% for others.

Figure 9: Students - The preferred format of Digital Literacies training by the overall level of Digital Literacies Knowledge



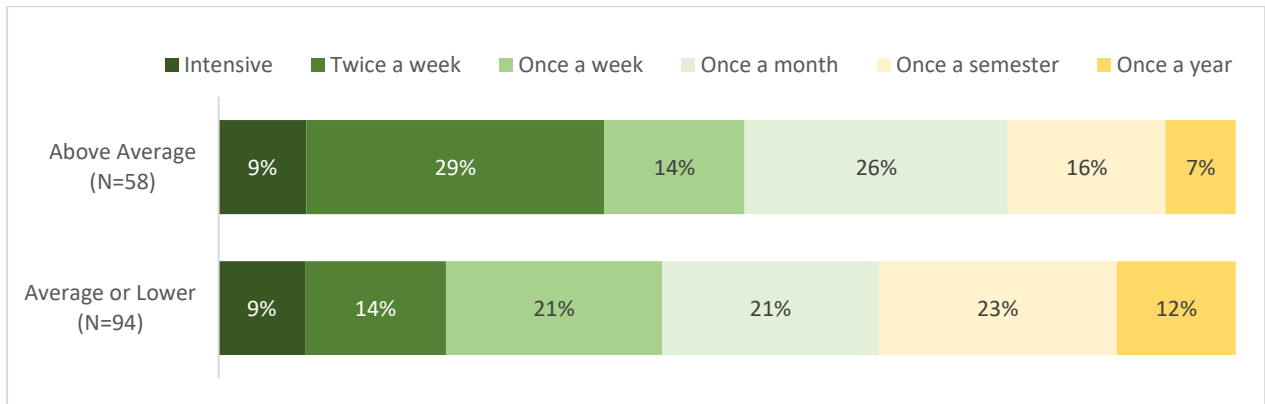
About 7% of the students are interested in taking an intensive course, while 21% prefer twice a week, and 18% once a week. Students who prefer Expert training want it to be more intensive compared to others (17% intensive, 43% twice a week, and 17% once a week).

Figure 10: Students: Frequency of the training sessions by desired training by students



Students with more overall level of Digital Literacies knowledge prefer to take more intensive courses compared to others with a lower level of knowledge.

Figure 11: Students: Frequency of the training sessions by the overall level of Digital Literacies Knowledge

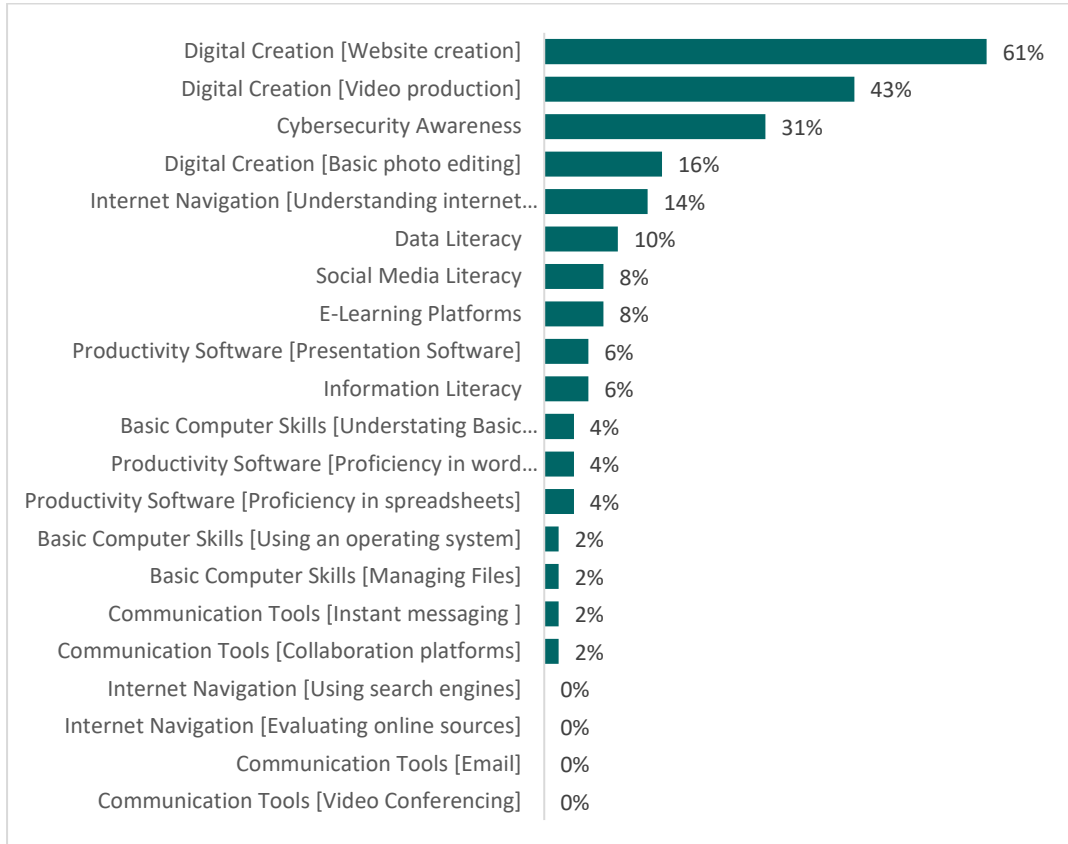


Results from qualitative approach show that students prefer to be part of the Digital Literacies trainings. Some students are concerned about AI because they are worried about the negative impact on creativity, motivation and individualism, while other ones see AI as a great tool for boosting the critical thinking of the students.

2.2 Findings regarding lecturers

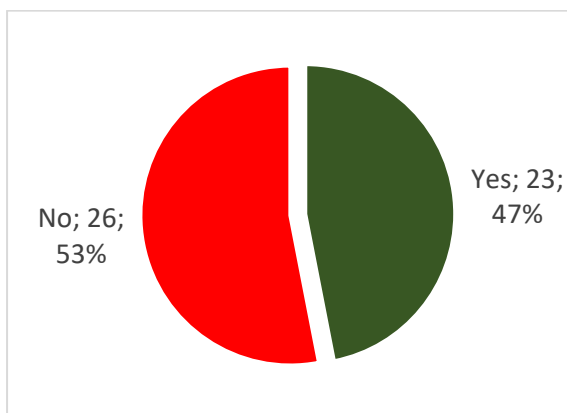
Results for Lectures show that they have less knowledge of Digital Creation, respectively 61% declare to have “No Proficiency” or “Limited Proficiency” in Website Creation and 43% in Video Production. Furthermore, one-third of the lecture respondents declare they have “No proficiency” or “Limited Proficiency” in Cybersecurity Awareness (31%)

Figure 12: Lecturers - Share of lecturers who have “no proficiency” or “limited proficiency” in Digital Literacies.



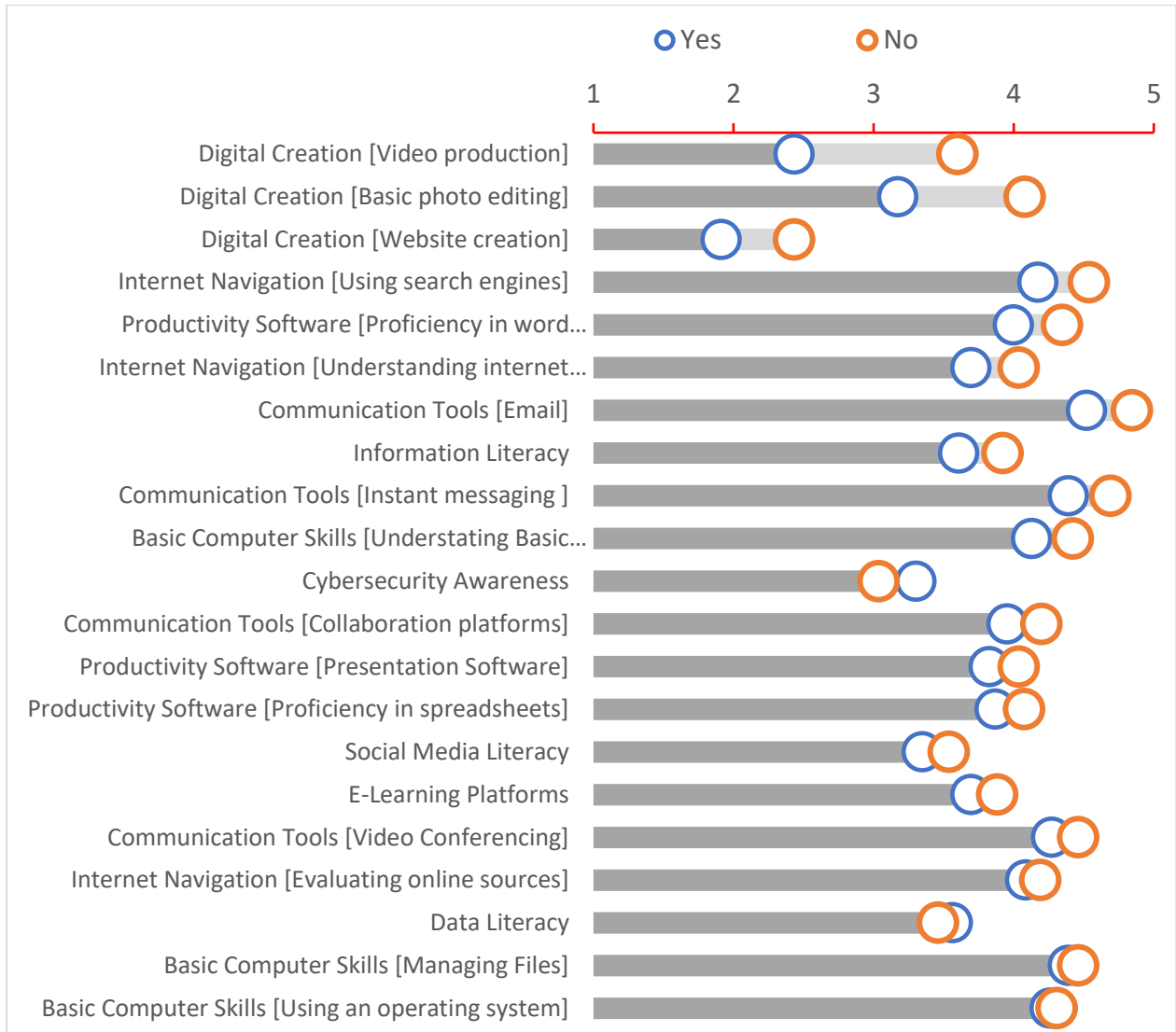
About 47% of the Lectures at the University of Shkodra “Luigj Gurakuqi” have participated in trainings related to digital literacies in the past years.

Figure 13: Lecturers: Participation in training in last years.



Results show that lecturers who have participated in at least one training in the last years related to digital literacies tend to evaluate themselves with a lower level of knowledge in almost all the indicators used to measure the level of knowledge on digital literacies. This can come due to the knowledge of how much it can be learned in each of the areas mentioned in the questionnaire.

Figure 14: Lecturer: Level of knowledge on Digital Literacies by participation in previous training

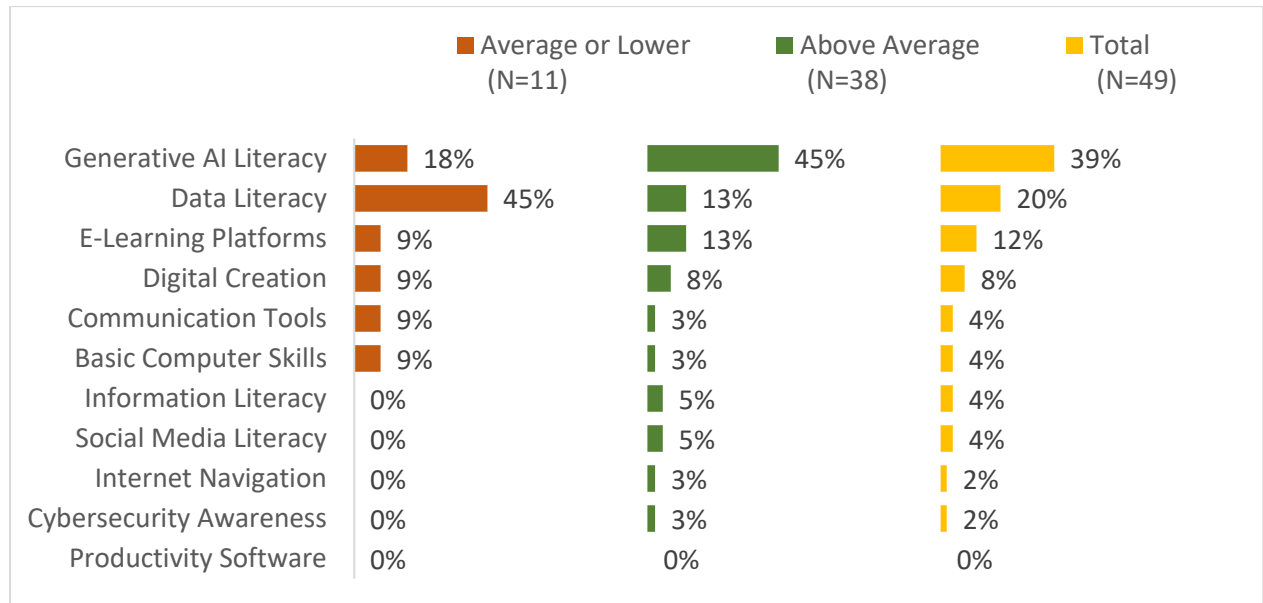


To measure what lectures need to be trained, it is created a new variable named knowledge, which shows if a respondent has knowledge (for all the indicators) below the average or higher. When respondents had to choose the one most important skill they want to improve, 39% chose Generative AI Literacy (as ChatGPT, Claude; accessing Generative AI and understanding its capabilities). Results show that the second Digital Literacies respondents are more interested in improving is E-Learning Platforms (20%).

Disaggregation by the level of Knowledge on Digital Literacies shows that those who have a lower level of knowledge (Average or lower) are more interested compared to others with a higher level of knowledge in learning Data Literacy (45% vs only 13% for those with higher knowledge levels. On the

other hand, lecturers with a higher level of knowledge of Digital Literacies are more interested in learning about Generative AI Literacy (45% vs 18%).

Figure 15: Lecturers: Digital Literacies skills that lecturers want to improve the most by the Digital Literacies Knowledge level



Another question in the survey is about what respondents are interested in improving but they can choose more than one answer and not only the one they are most interested in.

Again, as before more than half of the respondents are interested in improving their skills in Generative AI Literacy (55% overall, 64% for those with average or lower level of knowledge, and 53% for those with a higher level of knowledge on Digital Literacies). This result is interesting because only 18% of the respondents with an overall lower level of Digital Literacies wanted to improve Generative AI Literacy when they had to choose only one, but now when they had the opportunity to choose more than one, 64% of them were interested.

More than half of the Lectures want to improve their skills in Data Literacy (53% overall).

There is a large difference regarding the knowledge of Digital Literacies on Data Literacy, and on Social Media Literacy.

Figure 16: Digital Literacies skills that lecturers want to improve by Digital Literacies Knowledge level

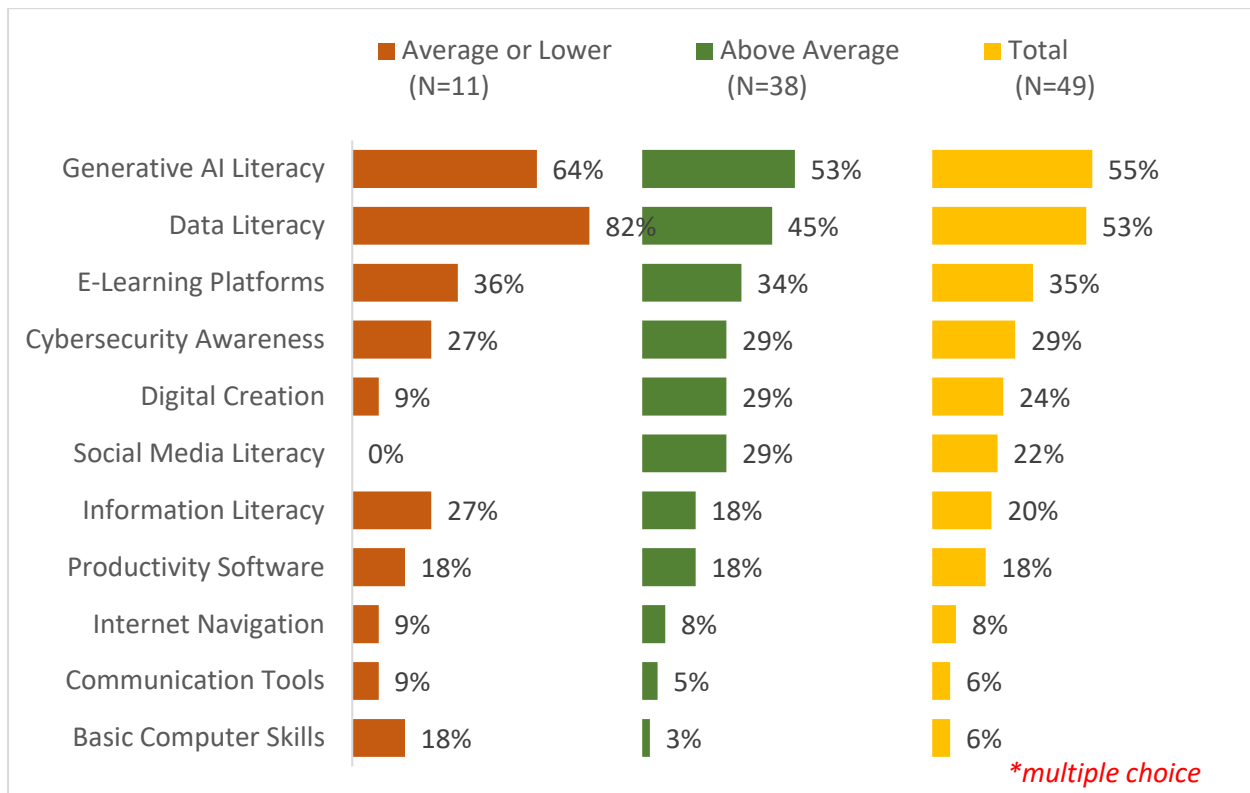
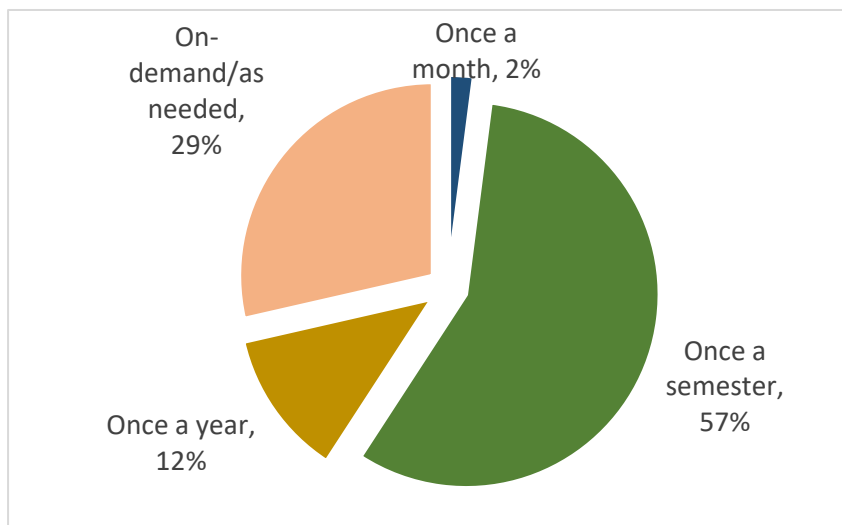


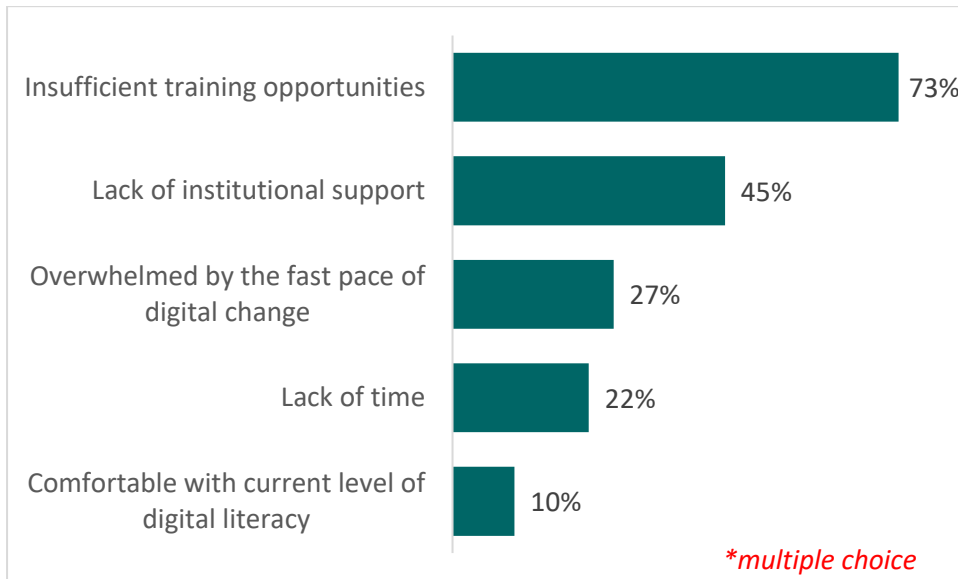
Figure 17: Lectures: Frequency of desired training



About 29 of the lectures at the University of Luigj Gurakuqi declare that they would like to receive Digital Literacies training “On-demand/As needed”. 57% of the respondents say they want those kinds of trainings once a semester, 12% once a year, and only 2% want them once a month.

When asked about barriers to improving their Digital Literacies skills, 74% said that there are Insufficient Training Opportunities, 45% “Lack of Institutional Support”, 27% “Overwhelmed by the fast pace of digital change, and 22% “Lack of time”. About 10% of the respondents declare that they are comfortable with their current level of Digital Literacies.

Figure 18: Lectures - Barriers to attending training sessions

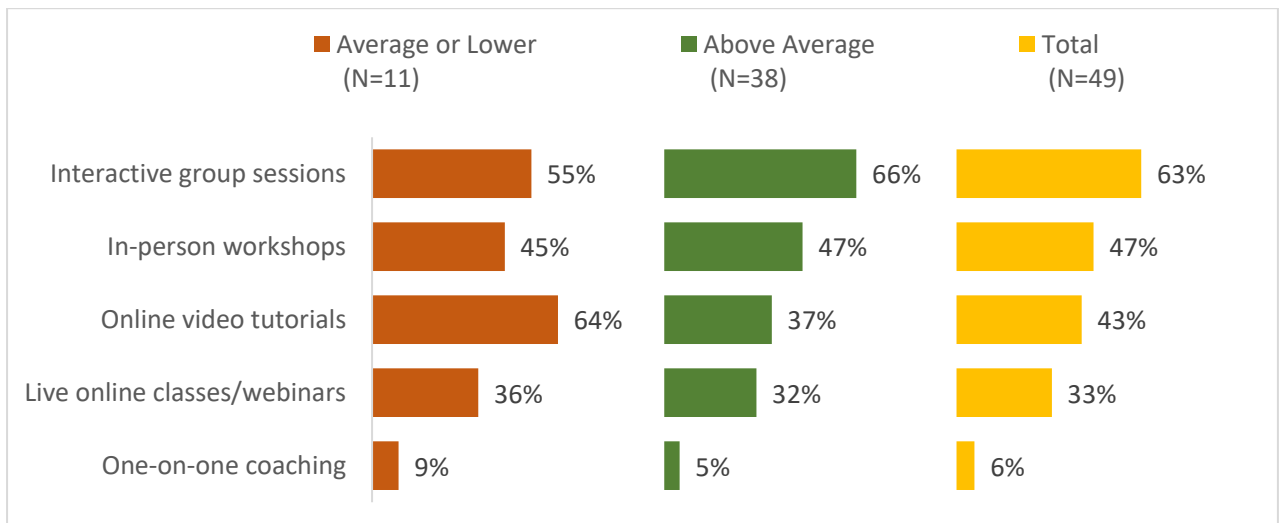


Preferred Training

About 63% of the respondents prefer Interactive Group Sessions related to Digital Literacies (55% of lecturers who have an average or lower level of knowledge in Digital Literacies would prefer to be part of Interactive Group Sessions, compared to 66% of those with a higher level of knowledge).

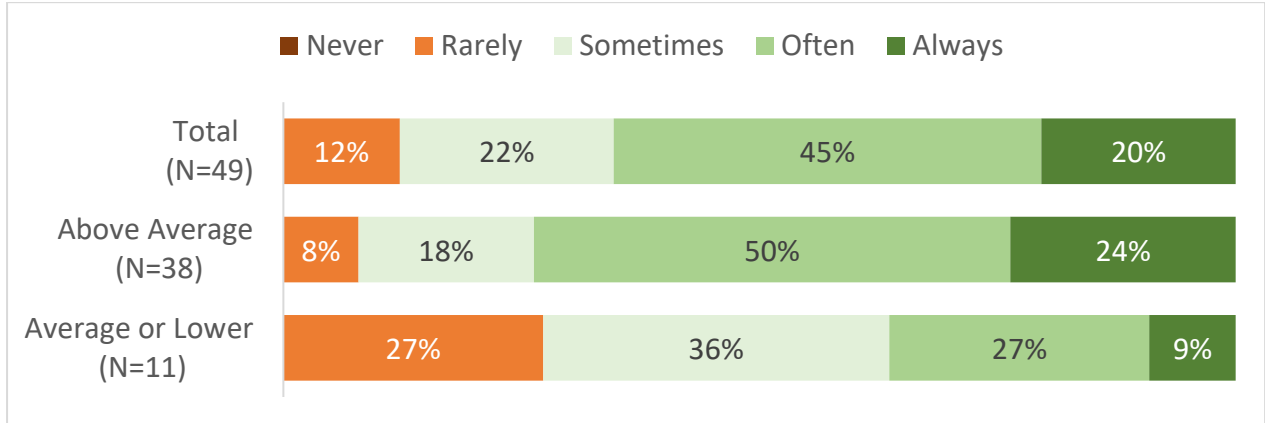
Almost half (47%) of the respondents prefer In-person Workshops. Respondents with an average or lower level of Digital Literacies knowledge prefer Online Video Tutorials, respectively 64%, versus 37% of those with a higher knowledge level.

Figure 19: Lectures: Preferred formats of Digital Literacies training



When Lecturers were asked how often they use digital tools in their teaching, 20% declared to always use them (24% of those with a higher level of knowledge on Digital Literacies compared to only 9% of others). About 27% of the lecturers with an average or lower level of overall knowledge on Digital Literacies declare to rarely use digital tools in their teaching compared to 8% of those with a higher level of knowledge.

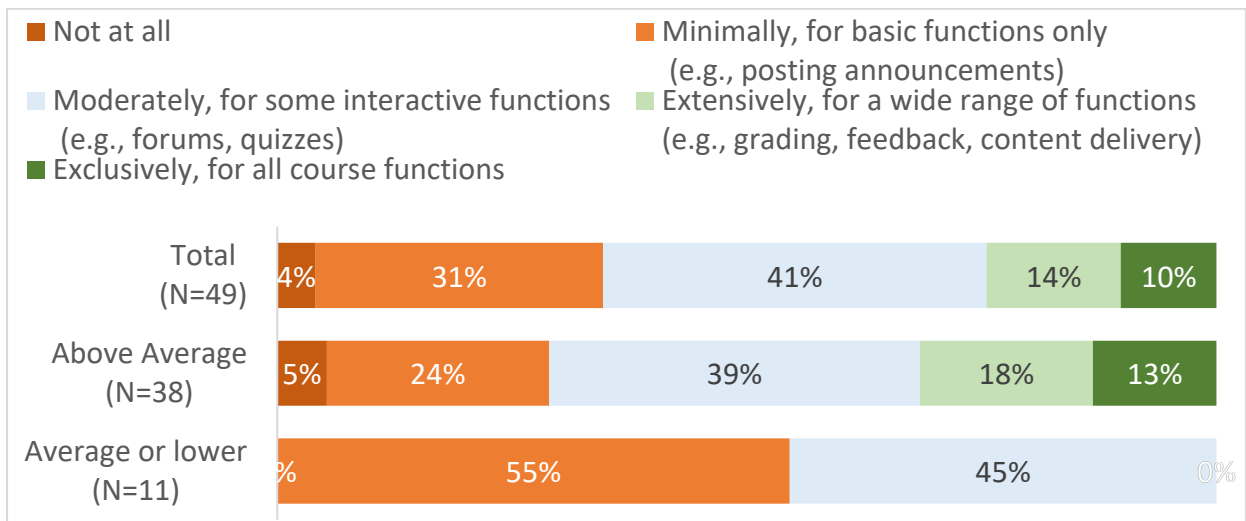
Figure 20: Lecturers: Frequency of desired training by overall Digital Literacies Knowledge level



Lecturers were asked to what extent they integrate learning management systems in their courses. Disaggregation by the level of overall knowledge of Digital Literacies shows that 55% of lecturers with a lower level of overall knowledge minimally integrate learning management system, compared to 29% of those with a higher level of knowledge (5% never and 24% minimally integrate them). About 13% of the respondents with a higher Digital Literacies Knowledge integrate Learning Management Systems for all the courses, compared to 0% of others with a lower level of knowledge.

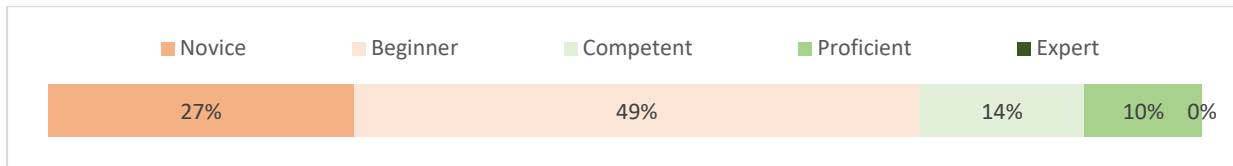
Findings from Focus Group show that most of the professors started using some educational platforms during Covid 19 pandemic but then stopped and they do not use them nowadays. The mentioned platforms are Google Classroom and Microsoft Teams. Also they used some Google forms as online tests but due to the copying issues they do not use them anymore.

Figure 21: Lecturer - Usage of Learning Management Systems in the Lecturer Courses



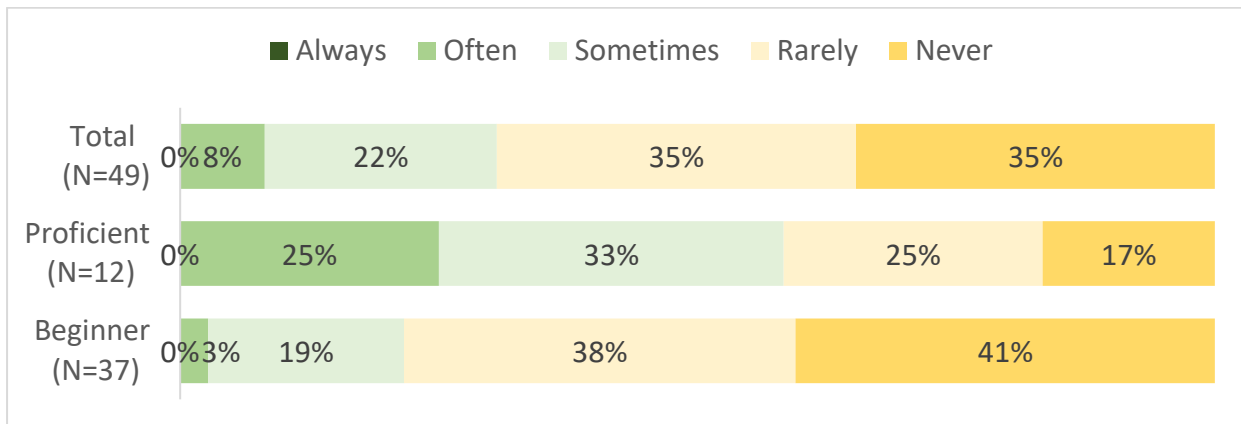
Results show that in using AI and machine learning tools, 0% of lecturers consider themselves as “Experts”, 10% as “Proficient”, and 14% as “Competent”. On the other hand, 76% consider them self as “Beginner” or “Novice”

Figure 22: Lecturer - Usage of AI and machine learning tools



One in four lecturers who consider themselves proficient (Competent, Proficient, or Expert) in AI and machine learning tools “often” utilize them, compared to only 3% of the Beginners. On the other hand, 35% “never” or “rarely” utilize them in their research activities (17% Proficient versus 41% Beginners).

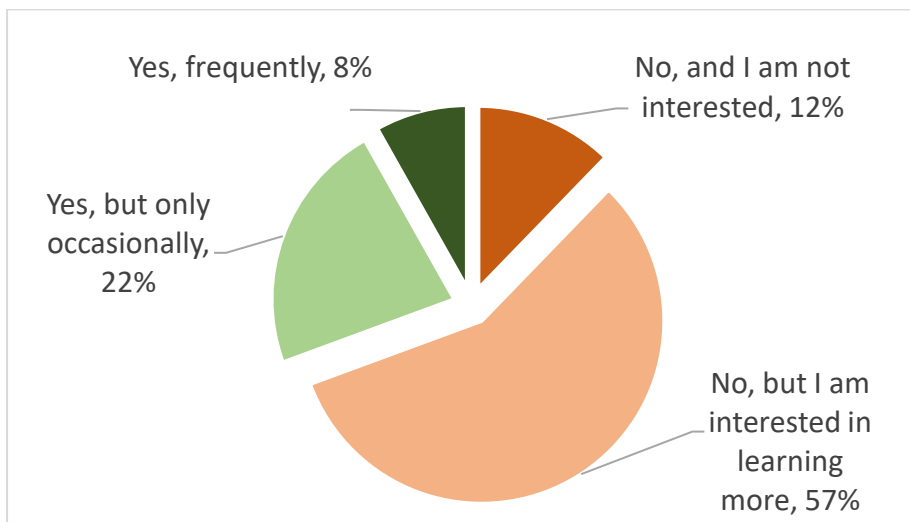
Figure 23: Lecturers - Usage of AI or learning machines by knowledge level of them



Only 8% of the lecturers have used AI-based tools frequently for personalizing learning or student engagement at the University of Shkodra “Luigj Gurakuqi”.

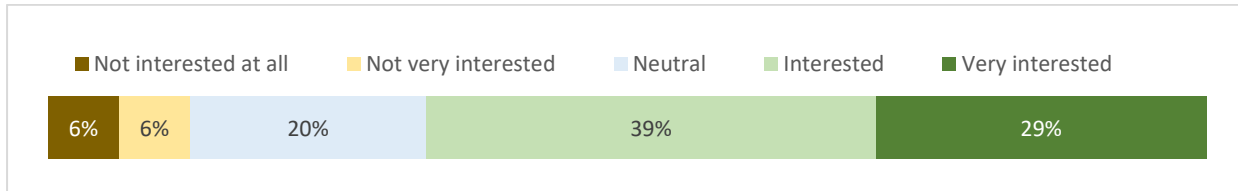
About 57% of the lecturers declare that they have not used AI-based tools for personalizing Learning or Student engagement, but they are interested in learning more.

Figure 24: Lecturer: Usage of AI-based tools for personalizing learning or student engagement



When Lecturers are asked how interested they are in incorporating AI/machine learning into their curriculum, 29% are “very interested”, and 39% are “interested”.

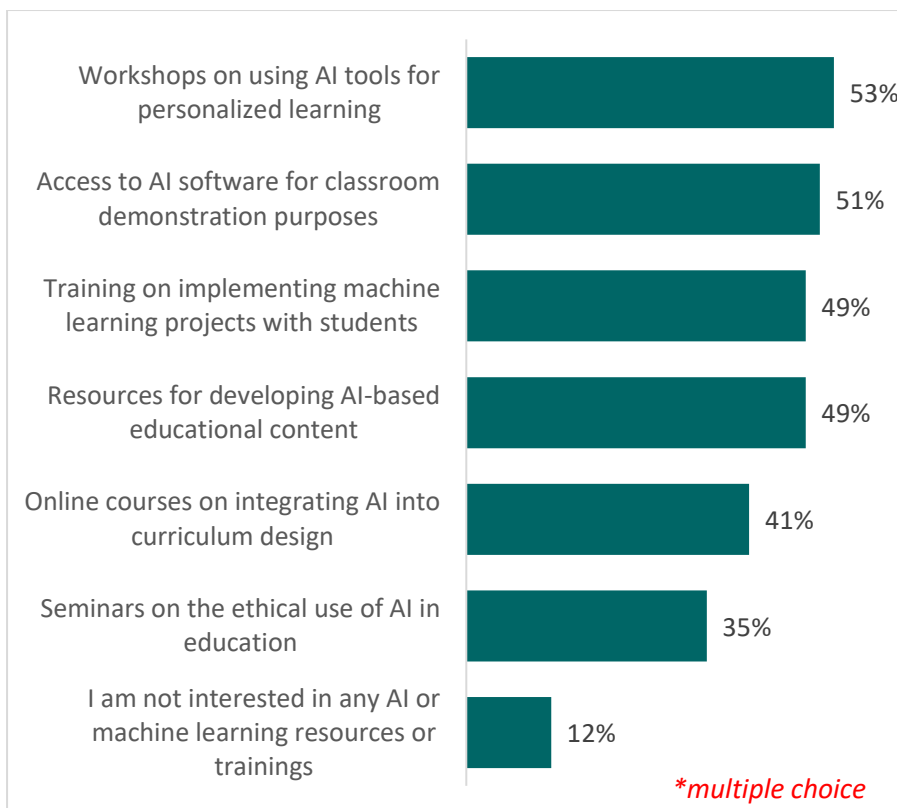
Figure 25: Lecturer - Level of interest in incorporating AI/machine learning into their curriculum



About 53% of the lecturers wish to have Workshops on using AI tools for personalized learning, so they can improve their teaching. Also, 51% of them want to have access to AI software for classroom demonstration purposes, and 49% want to have training on implementing machine learning projects with students and Recourses for developing AI-based educational content.

Only 12% of lecturers are not interested in any AI or machine learning resources or training.

Figure 26: Lecturer - Desired resources or training that lecturers are interested in having access to improve their teaching

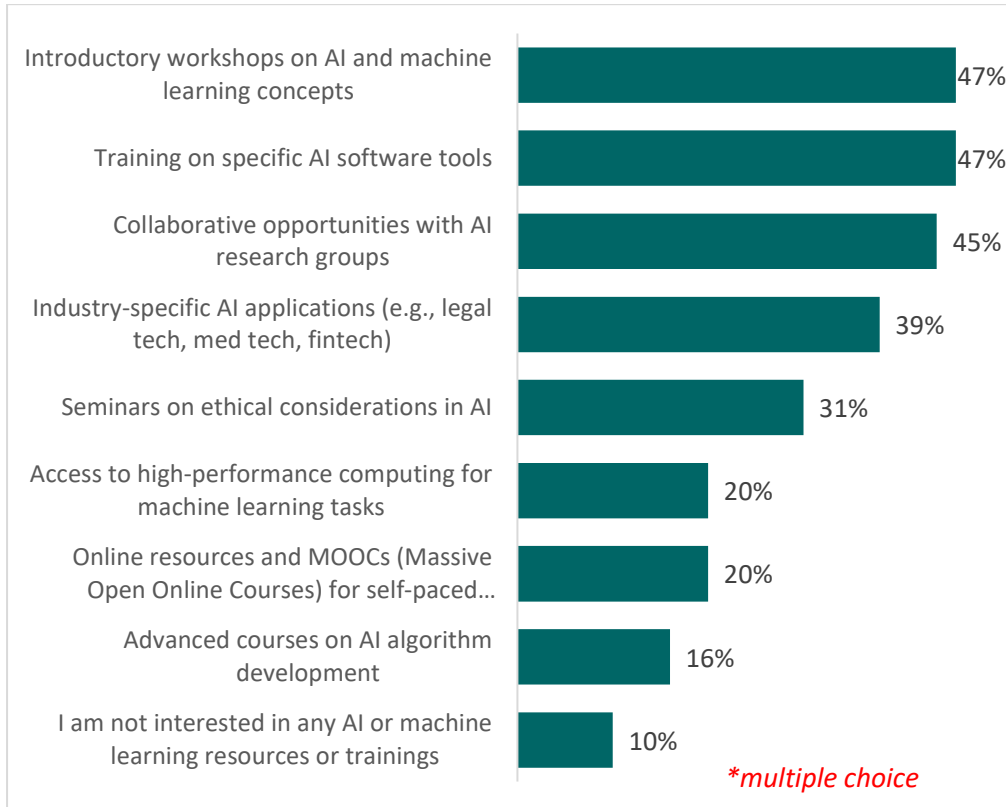


Almost half of the lecturers are interested in Introductory on AI and machine learning concepts (47%) and in Training on specific AI Software tools (47%), so they can improve their research.

About 45% of the respondents are interested in a Collaborative opportunity with AI research groups.

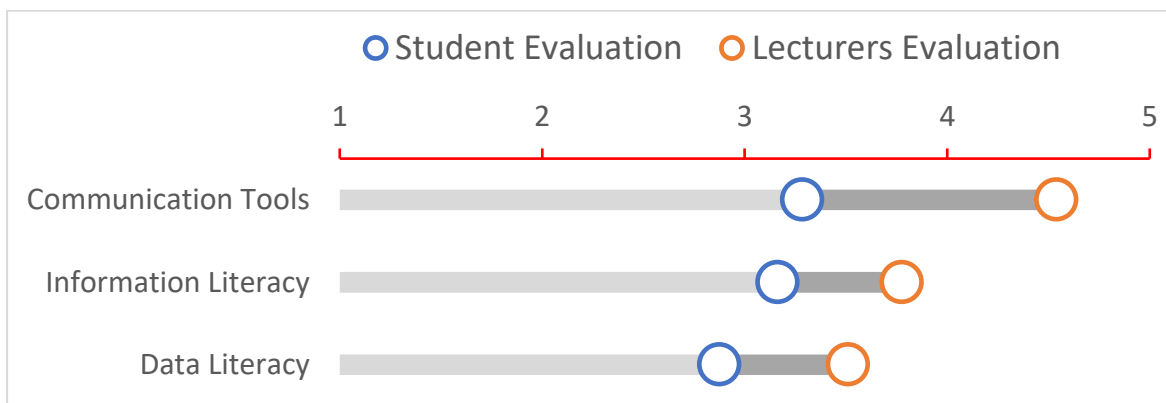
On the other hand, only 10% of the respondents are not interested in any AI or machine learning resources or training.

Figure 27: Lecturer - Desired resources or training that lecturers are interested in having access to improve their research



To capture different perspectives on the evaluation of knowledge in Digital Literacies, in this study we have asked 3 similar questions to students for lecturers and the opposite. In opposite to how lecturers evaluate themselves on Digital Literacies, students think they have a lower level of knowledge. There is a significant difference in all the three questions that were asked to students and lecturers.

Figure 28: Comparison of evaluation for Lecturers' knowledge, Student and Lecturer evaluation



Findings from Focus Group with lecturers show that there are some challenges like lack of digital infrastructure, and the lack of skills to adapt to modern teaching methods.



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Focus Groups was conducted with stakeholders and not only with students and lecturers. This way we can see the stakeholders view of the situation to better prepare students and lecturers for the demands of the contemporary digital landscape.

Stakeholders think that students lack of Digital Literacies knowledge and have lower knowledge level even in basic skills like Word, Excel, and PPT. Covid 19 helped them to enhance their level of knowledge regarding the Digital skills but still they need to have a higher knowledge level. They suggest that trainings and courses about Digital skills should start in primary years of school and not only when they grow. Most of the students increase their ability on Digital Literacies by themselves and not because of where they study. Stakeholders declare that curricula at the University is not updated so they do not blame students for their lack of knowledge.

IV. CONCLUSIONS

Students recommend:

- That infrastructure should be improved, more computers and projectors
- Provide Digital Literacies training on various digital tools, platforms and AI applications
- Adaptation to the modern teaching methods and technological advancement
- Adaptation of the curricula for the digital future
- Access in online libraries
- Formalization of the communication channels (like email and not WhatsApp).

Lecturers recommend:

- Digital Literacies training so they can be able to provide a meaningful experience to students (they are interested in every training related to Digital Literacies, and they think it is better to be organized in the form of workshops or online courses).
- Lecturers should be more creative in designing and implementing learning using digital tools. Also, to use more the digital tools during the teaching process
- To create an effective and standardized E-Learning platform for the Institution

Stakeholders recommend:

- To include into the curricula the digital software's: web, advanced excel, financial and accounting software's etc.
- To held training for both students and professors (to shape training according to specific needs of the students)
- To have meetings with stakeholders to bring their expertise and address their needs
- To engage in common projects with university students that empower the need for digital skills.





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University to Society Collaborations for Inclusive Digital Transformation in the Western Balkans

REPORT

NEEDS ASSESSMENT SURVEY OF DIGITAL LITERACIES IN U2SID PARTNER UNIVERSITY OF MONTENEGRO





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This report is prepared by the Center Science and Innovation for Development (SciDEV)

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This document is produced in the framework of the Erasmus+ Capacity Building in Higher Education Project: U2SID - University to Society Collaborations for Inclusive Digital Transformation in the Western Balkans.

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PROJECT SNAPSHOT

Project Title	University to society collaborations for inclusive digital transformation in the Western Balkans
Project's acronym	U2SID
Webpage	[insert project website]
Project's budget	EUR 398,650.00
Funded by	Erasmus+ Programme Capacity building in Higher Education
Project number	101083131
Project duration	24 months
Project Coordinator	University of Shkodra Luigj Gurakuqi
Countries involved	Albania; Serbia; Montenegro; Italy
Project partners	<p>University of Shkodra Luigj Gurakuqi</p> <p>University „Fan S. Noli” of Korca</p> <p>Mediterranean University of Albania</p> <p>Center Science and Innovation for Development</p> <p>Center for Comparative and International Studies</p> <p>National Agency for Scientific Research and Innovation</p> <p>University of Montenegro</p> <p>University of Belgrade</p> <p>University of Salento</p>
Aim and objective	<p>Project's aim: To foster inclusive digital transformation in the Western Balkans through increased collaboration between universities with other stakeholders such as businesses, policy makers, civil society, and media.</p> <p><i>The specific objectives of U2SID are:</i></p> <p>SO1 – To strengthen digital competences of teachers, students, and professionals through the development of a Digital Literacies Acceleration Programme as a collaborative programme among universities on one side and businesses, civil society, local decision makers and media on the other.</p> <p>SO2 – To improve innovative teaching methods through piloting a Digital Transformation Challenge for students as a project-based and solution-oriented learning based on mentoring, coaching and placement at businesses, civil society, local decision makers and media.</p> <p>SO3 – To raise awareness on the importance of inclusive digitalisation by including vulnerable target groups in the digitalization process.</p>





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ABBREVIATIONS

CCIS	Center for Comparative and International Studies (Qendra për Studime Krahasuese dhe Ndërkombëtare)
EACEA	European Union or European Education and Culture Executive Agency
EU	European Union
NASRI	National Agency for Scientific Research and Innovation (Agjencia Kombëtare e Kërkimit Shkencor dhe Inovacionit)
PSC	Project Steering Committee
SCiDEV	Center Science and Innovation for Development (Qendra Shkencë dhe Inovacion për Zhvillim)
U2SID	University to society collaborations for inclusive digital transformation in the Western Balkans
UCG	University of Montenegro (Univerzitet Crne Gore)
UMSH	Mediterranean University of Albania (Universiteti Mesdhetar i Shqipërisë)
UNIBELGRADE	University of Belgrade (Univerzitet u Beogradu)
UNIKO	University „Fan S. Noli” of Korca (Universiteti i Korçës "Fan S. Noli")
UNISALENTO	University of Salento (Università del Salento)
UNISHK	University of Shkodra Luigj Gurakuqi (Universiteti i Shkodrës “Luigj Gurakuqi”)
WP	Work Package





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I. INTRODUCTION

The U2SID project aims to drive inclusive digital transformation in higher education in Western Balkans by fostering collaboration between universities, businesses, policymakers, civil society, and media. It emphasizes safe digitalization through enhancing awareness and capacity in privacy, data protection, and digital literacies, thus promoting digital rights. The aim of the project is to foster inclusive digital transformation in the Western Balkans through increased collaboration between universities with other stakeholders such as businesses, policy makers, civil society, and media.

The U2SID project's specific objectives encompass three key areas. Firstly, it focuses on enhancing digital competencies among teachers, students, and professionals via a Digital Literacies Acceleration Programme. This program promotes collaboration between universities and various stakeholders like businesses, civil society, and media. Secondly, it aims to advance innovative teaching methods through the Digital Transformation Challenge, offering project-based, solution-oriented learning with mentorship and professional placements. Lastly, it emphasizes raising awareness about inclusive digitalization, particularly targeting and including vulnerable groups in the digitalization process.

In this light, the central objective of this research exercise is to evaluate the current state of digital literacies among two primary groups within the academic sphere: lecturers and students in 4 partner universities of the U2SID project, namely: University of Shkodra “Luigj Gurakuqi”, University of Korça “Fan S. Noli”, Mediterranean University of Albania and University of Montenegro. The study recognizes the increasing role those digital competencies play in both delivering and accessing higher education. By assessing the needs, the study intends to identify gaps in knowledge, skills, and infrastructure that may be hindering the effective use of digital tools and resources in teaching and learning environments in the universities involved in this project in Albania and Montenegro.

Furthermore, the study seeks to incorporate diverse perspectives by engaging with stakeholders who are directly or indirectly impacted by the digital literacies of lecturers and students. These stakeholders may include administrative staff, IT personnel, policy makers, and employers. The input from these groups will provide a multi-dimensional understanding of digital literacies needs, expectations, and the potential barriers to implementing digital literacies programs.

II. METHODOLOGY

The methodology for this need assessment exercise on digital literacies at university level is crafted to facilitate an understanding of the subject within academic contexts of partner universities involved in the project and to inform with evidence the next activities to be implemented by the project partners such as the Digital Literacies Accelerator Programme and Digital Transformation Challenge. This approach embraces both quantitative and qualitative data collection methods, harmonizing them to draw a reliable picture of the digital literacies needs and gaps in these the academic context of University of Montenegro. The study was conducted in November and December 2023 and the data analysis in January 2024.

Central to the quantitative dimension of our research are online questionnaires with a total of 88 students surveyed and 38 lecturers. These instruments are designed to quantitatively assess lecturers' and students' self-reported competencies in digital literacies, their habitual use of digital resources, their preferences for certain technologies, and their perceived needs for further support and





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development. Ensuring a representative sample in each partner university is important; therefore, the study encompasses a diverse cross-section of departments, faculties, and educational levels both Bachelor and Masters. Subsequent statistical analyses scrutinize this quantitative information to identify prevalent patterns and trends, which provide insights for recommendations for the next activities to be implemented by the project partners.

Parallel to this, the qualitative component through structured focus group discussions delves into the more subjective dimensions of digital literacies. These sessions are planned to reveal the attitudes, personal experiences, and the various contextual factors that shape individuals' engagement with digital tools and resources. Discussion guides, prepared in advance and based on literature reviews, steered conversations to meaningful depths. The discussions were then transcribed in detailed focus group reports by each partner university. 3 focus groups were organized by with lecturers, students, and stakeholders, with a total of 30 participants.

The integration of quantitative and qualitative data is necessary for the cross-verifying data points but also minimizes the biases that any single method might introduce. The findings of the need assessment are relevant for participating partner universities and cannot be generalized to entire academic contexts in Albania and Montenegro.

The online questionnaire and focus group guidelines, used this “Digital literacies” definition:

- Basic Computer Skills: Using an operating system, managing files, and understanding basic hardware.
- Internet Navigation: Using search engines, evaluating online sources, and understanding internet safety.
- Productivity Software: Proficiency in word processing, spreadsheets, and presentation software.
- Communication Tools: Email, instant messaging, video conferencing, and collaboration platforms.
- Digital Creation: Basic photo editing, video production, or website creation.
- Information Literacy: Finding, evaluating, using, and citing digital information.
- Cybersecurity Awareness: Understanding of personal data protection, password security, and awareness of phishing scams.
- Social Media Literacy: Creating content, understanding digital footprints, and privacy settings.
- Data Literacy: Understanding of data collection, analysis, and interpretation.
- E-Learning Platforms: Navigating online learning systems and digital libraries.





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III. DATA ANALYSIS AND FINDINGS

The study investigates digital literacies among students and lecturers at University of Montenegro. Involving 88 students and 38 lecturers, it utilized an online survey method. The margin of error for the student's study is 10.4%, meaning that the confidence interval of every result is $\pm 10.4\%$. The large margin of error is due to the low number of surveyed students.

Data Analyses is conducted using IBM SPSS. Data for students are weighted in order to be representative of the total students of the university. This was done so the contribution of male and female respondents was proportional to the real population of the total students of the university.

Furthermore, a qualitative approach was used as well. In total 3 Focus Groups were conducted, including one focus group with students, one with lecturers and one with stakeholders. Their findings are used to confirm or not and to give reasons to the results of the quantitative research.

1. FINDINGS

This section of the report is structured around three primary components: firstly, it presents both quantitative and qualitative findings related to students; secondly, it delves into similar types of data concerning lecturers; and thirdly, it incorporates qualitative insights obtained from focus groups with various stakeholders.

2.1 Findings regarding students

The results from University of Montenegro show that more than half of the students lack of ability on the Digital Creation (Website creation). One-third declare to have "no proficiency" or "limited proficiency" in Video Production (34%), Generative AI related to learning (34%), Proficiency in Spreadsheets (33%), and Basic Photo Editing (32%).

On the other hand, fewer students declare to have "no proficiency" or "limited proficiency" in Information Literacy (7%), in Email as a communication tool (9%), in Instant Messaging (10%), etc.

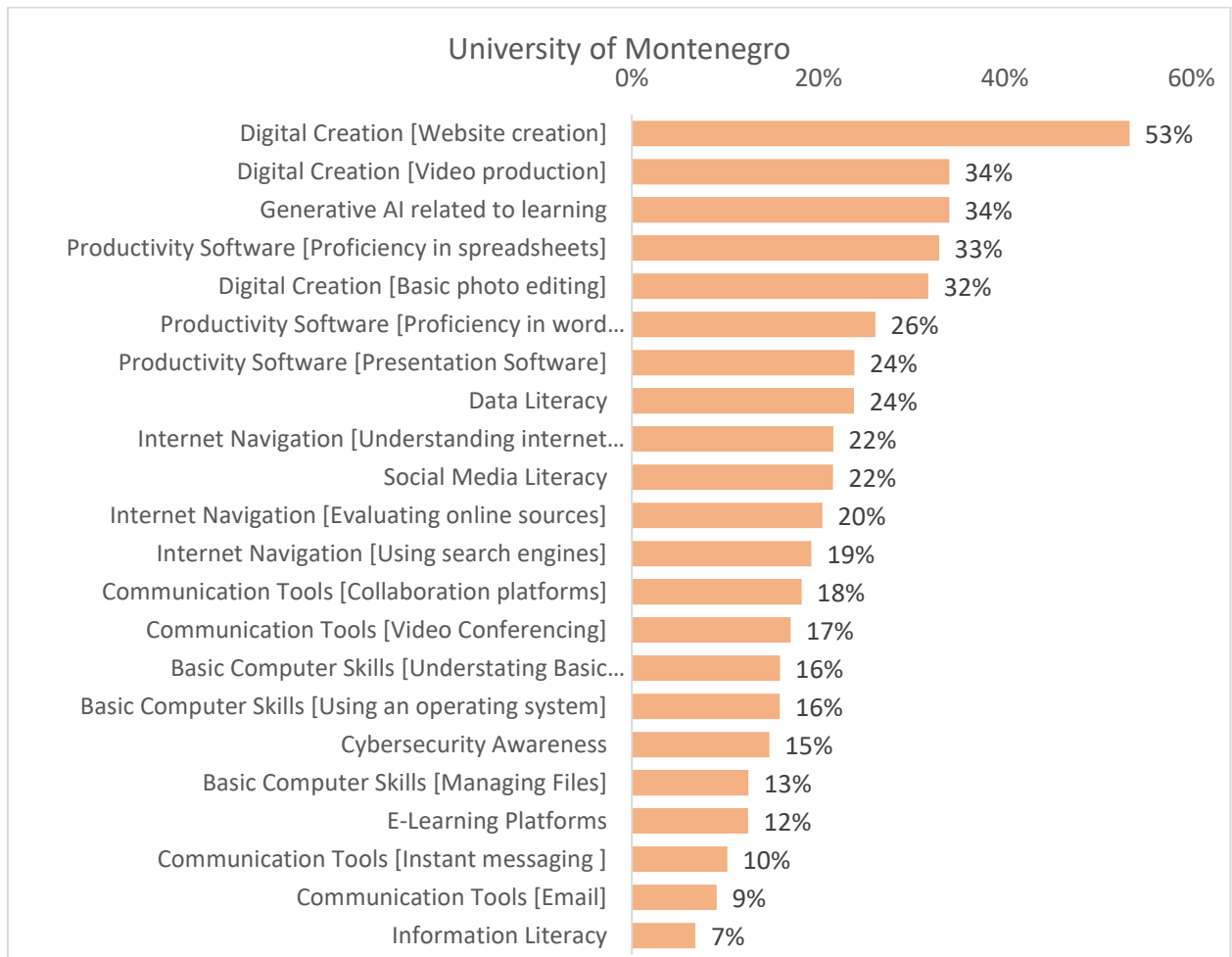
The data used for the total students of University of Montenegro are weighted so the results would be representative of the whole students. The margin of error in this case is equal to 10.4%, so the interval of confidence is $\pm 10.4\%$ for all the results presented in this paper. The large Margin of Errors comes due to the low number of observations we have.

Focus Groups: Data from Focus Groups supports the evidence from quantitative approach that most of the students have a lower level of knowledge on Website Creation, where only some students of the technology fields have some experience with it.

The most mentioned digital tools that students use during the focus group were: Viber and Instagram (they use to communicate with other students and to share materials); Zoom, Teams and Moodle (they used these tools during the Covid 19); Google Search (the most used engine to search for information); ChatGPT (to help them with homework).

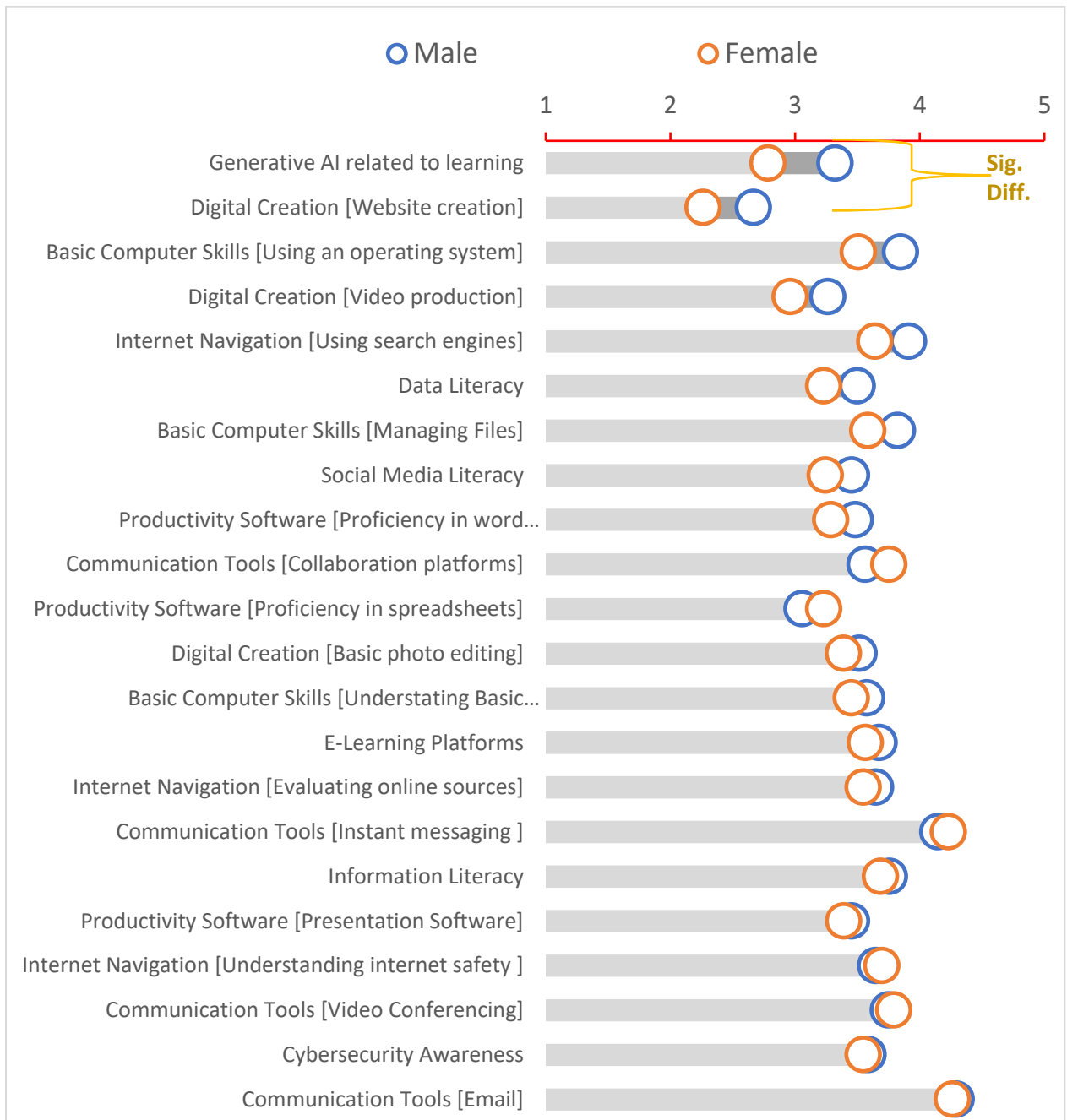


Figure 1: Students - Share of students who have “no proficiency” or “limited proficiency” in Digital Literacies.



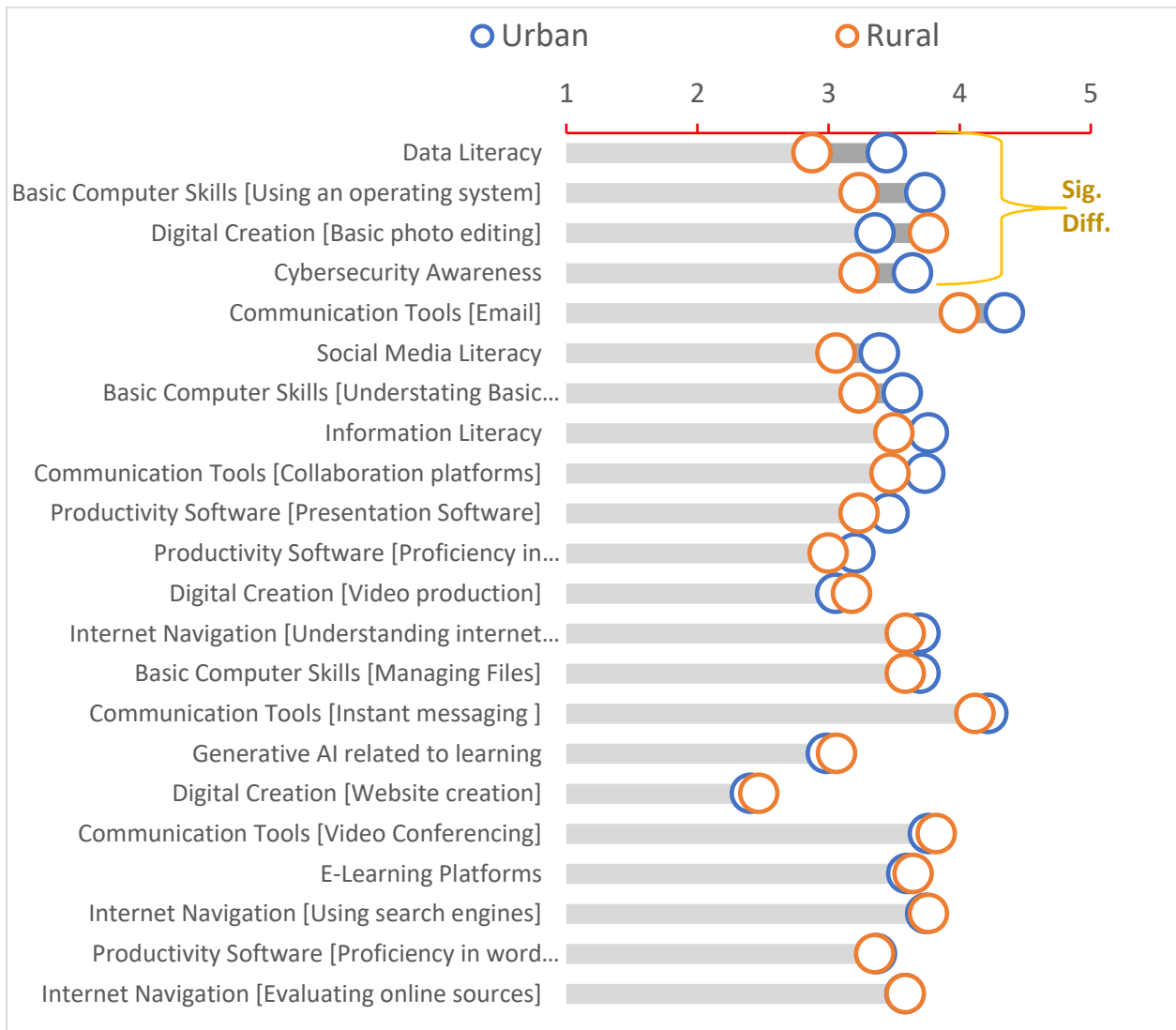
When we check if there are significant differences related to the gender of the students, it can be shown that males tend to have a higher level of knowledge on most of the indicators used to measure the knowledge of Digital Literacies. The significant difference results only in Generative AI related to learning and in Website Creation.

Figure 2: Students - Level of knowledge on Digital Literacies by gender



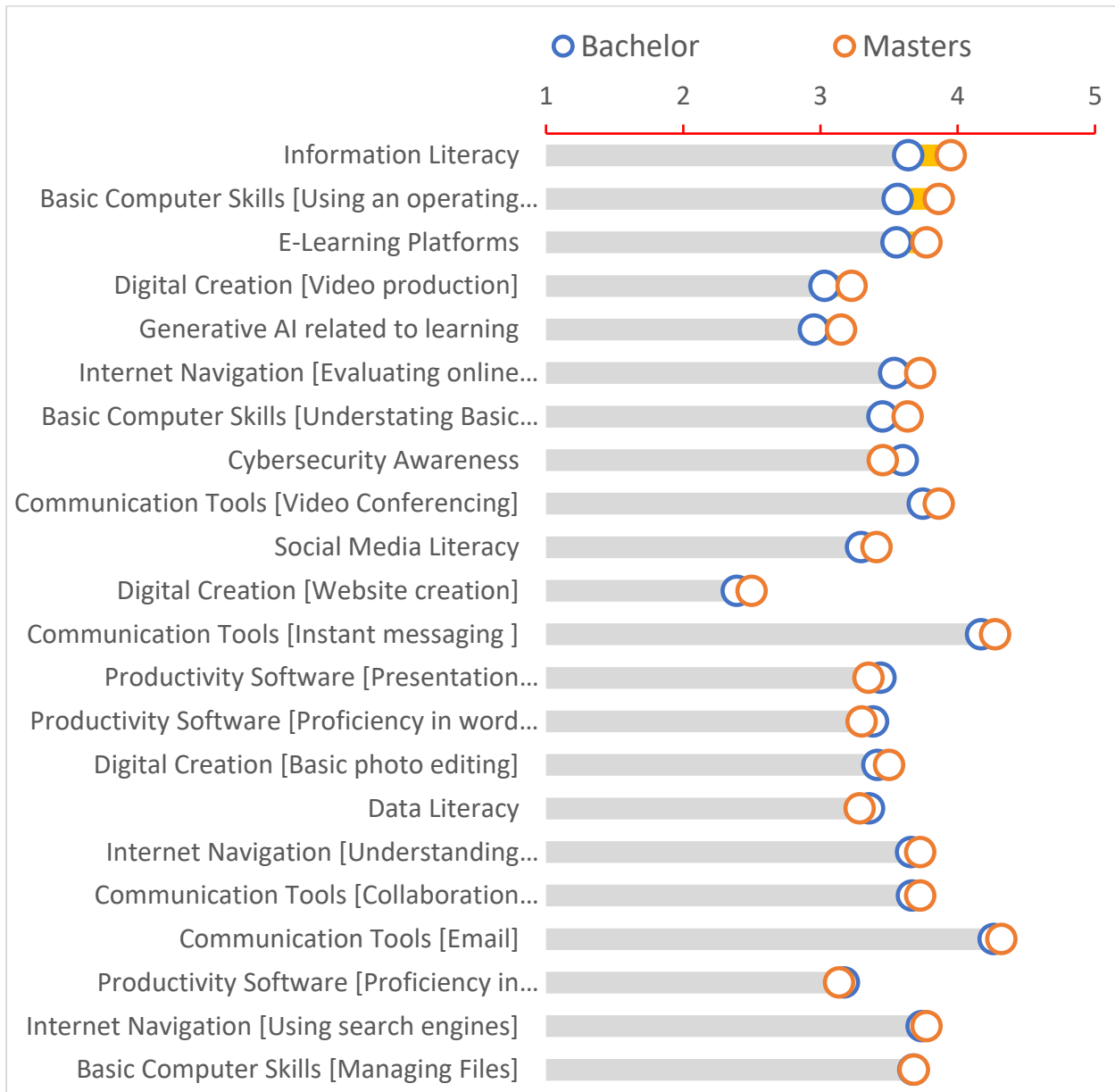
Results by Urbanity show that respondents from urban areas tend to have a higher level of knowledge on most of the indicators used to measure Digital Literacies compared to respondents from rural areas. The other is true Basic Photo Editing. We should be careful with the interpretation of the results because due to the low number of respondents living in rural areas, their results are only indicative. But, as it can be seen, overall respondents from rural areas tend to have lower knowledge of Digital Literacies. The largest difference is shown in Data Literacies.

Figure 3: Students - Level of knowledge on Digital Literacies by Urbanity



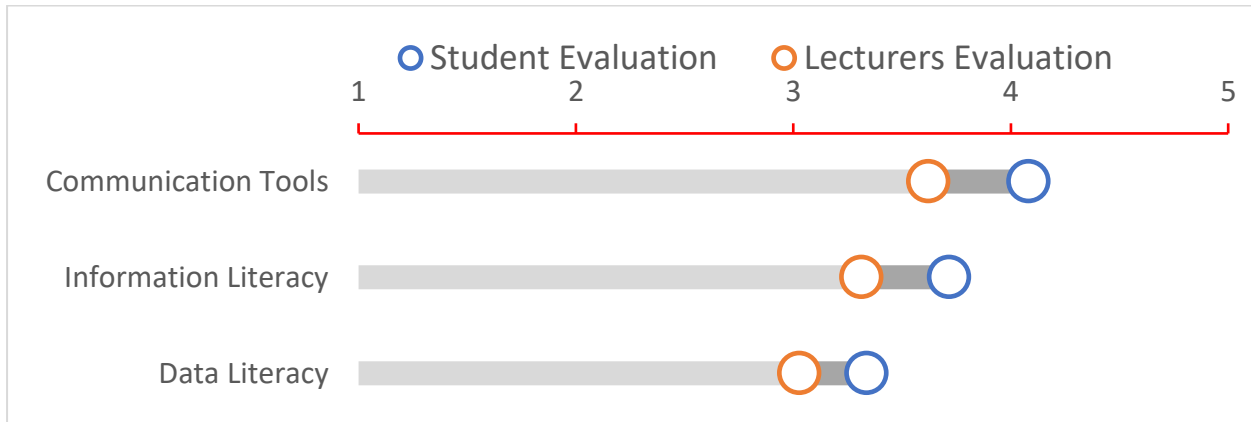
As expected, results by the level of degree results that Master Students tend to have a higher level of knowledge on most of the Digital Literacies Indicators, but the differences are small and not significant.

Figure 4: Students: Level of knowledge on Digital Literacies by degree



To capture different perspectives on the evaluation of knowledge in Digital Literacies, in this study we have asked 3 similar questions to lecturers for students and the opposite. As can be seen in the graph below, Lecturers are prone to think that students have a lower level of knowledge regarding Digital Literacy compared to what students evaluate themselves.

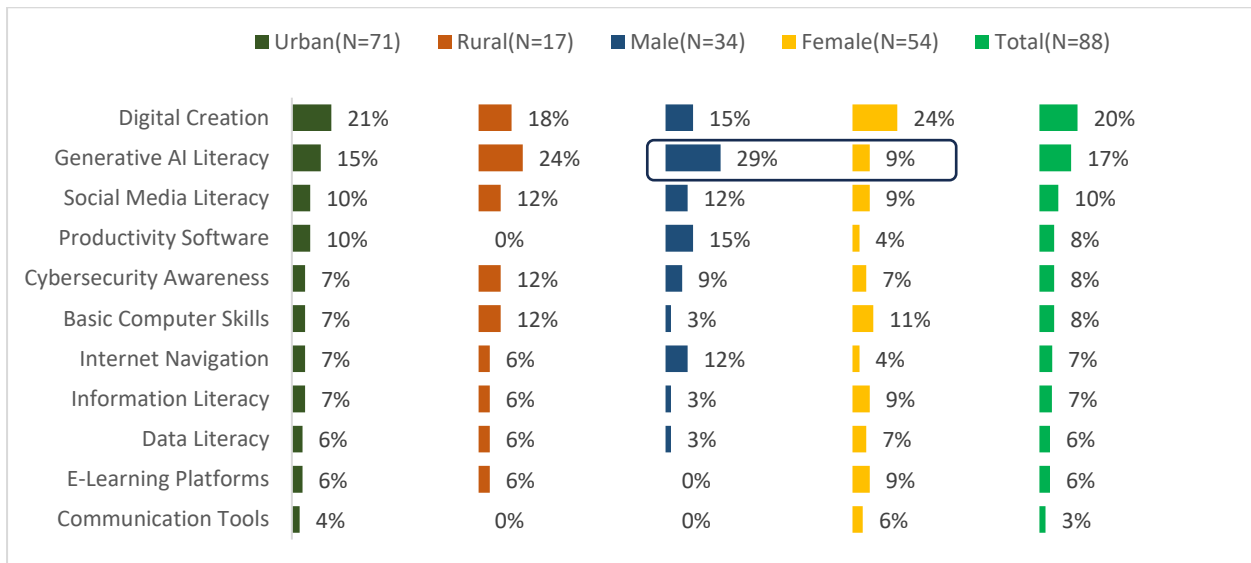
Figure 5: Students: Comparison of evaluation for Student knowledge, Student and Lecturers perspective



When students were asked what specific Digital literacies they were interested in improving, 20% chose Digital Creation, 17% Generative AI Literacy, 10% Generative Social Media Literacy, and so on.

There are some differences between males and females, where females are more interested in improving Digital Creation, while men are interested more in Generative AI literacy. Furthermore, there are some differences related to the area where students live. Students living in urban areas are most interested in improving Digital Creation Skills, while respondents from rural areas are more interested in improving Generative AI Literacy. For the total are used weighted data so the results can be representative. Results for students from rural areas are only indicative, not significant.

Figure 6: Students: Skills that students are interested in improving, by urbanity and gender

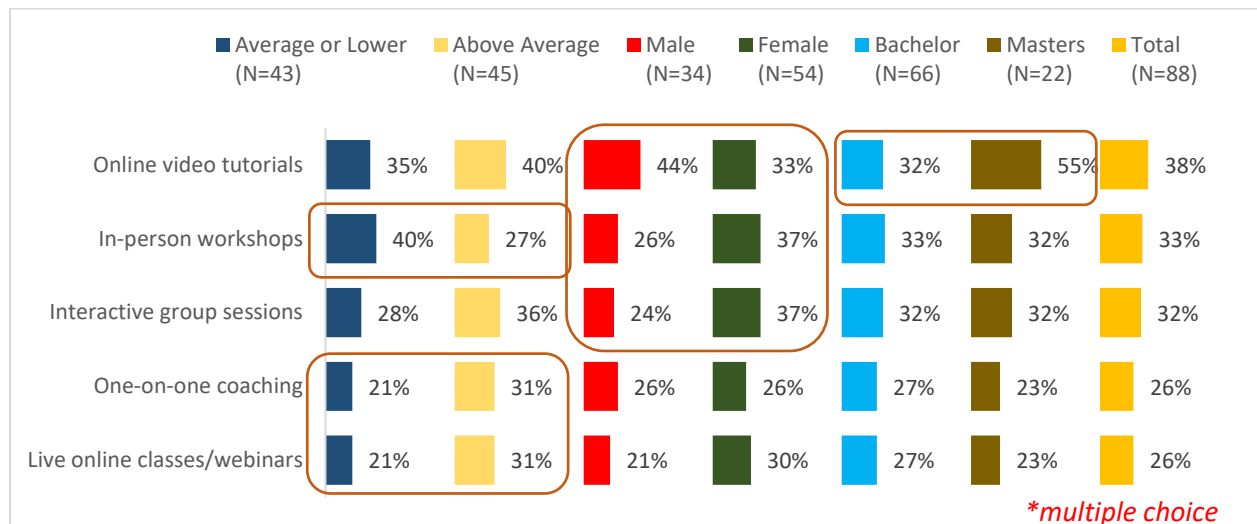


When asked about preferred formats of Digital literacies Training, 38% of the respondents wanted Online Video Tutorials. For Online Video Tutorials we have a large difference between males and females, and bachelor vs master students. Respectively, 44% of male students prefer Online Video Tutorials compared to 33% of females. Also, 55% of the master students prefer online video tutorials compared to 32% of bachelor students.

To measure what students of different levels of overall Digital Literacies knowledge want, we have created an indicator where students with an average or lower level of knowledge overall are separated from others with a higher level of knowledge. About 27% of the students with a higher level of Digital Literacy knowledge prefer In-person Workshops, compared to 40% of other students.

In opposite, findings from Focus groups show that students prefer more face-to-face training compared to the online ones. But they state that online video tutorials are a great way of learning if the trainer is an expert. Its advantages are that sessions are recorded and if you do not understand something you will go back and check it again.

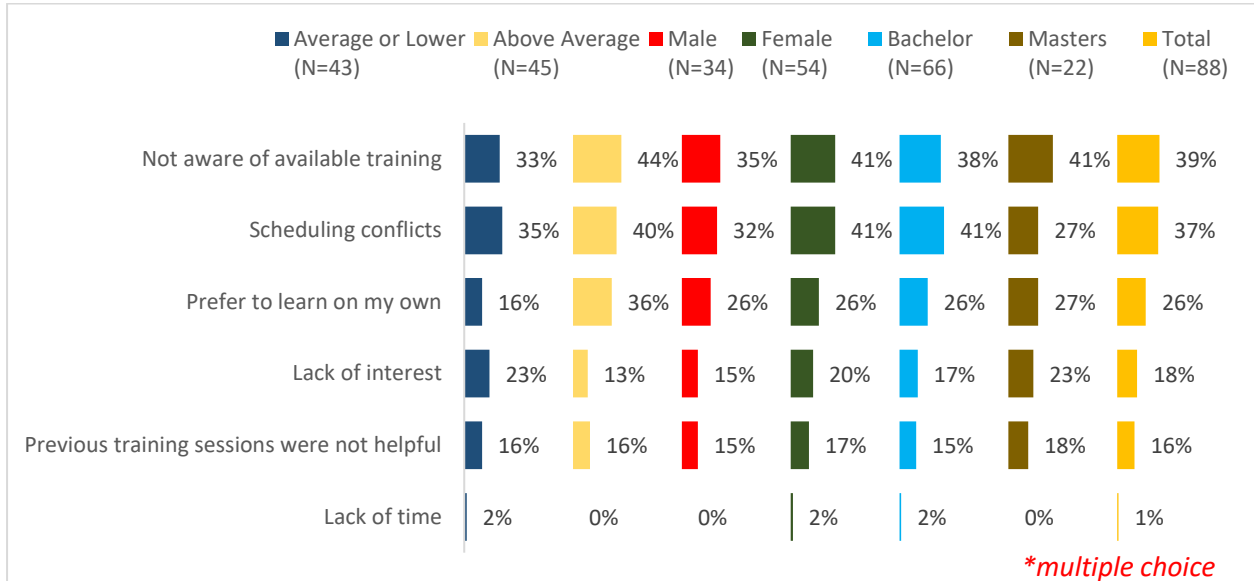
Figure 7: Students: Preferred formats of Digital Literacies, by degree, gender, and overall level of Digital Literacies knowledge



Students were asked about barriers to attending the training sessions. Awareness of available trainings was the main problem for 39% of the students. The second problem for 37% of the students was Scheduling Conflicts, and 26% of the students prefer to learn on their own.

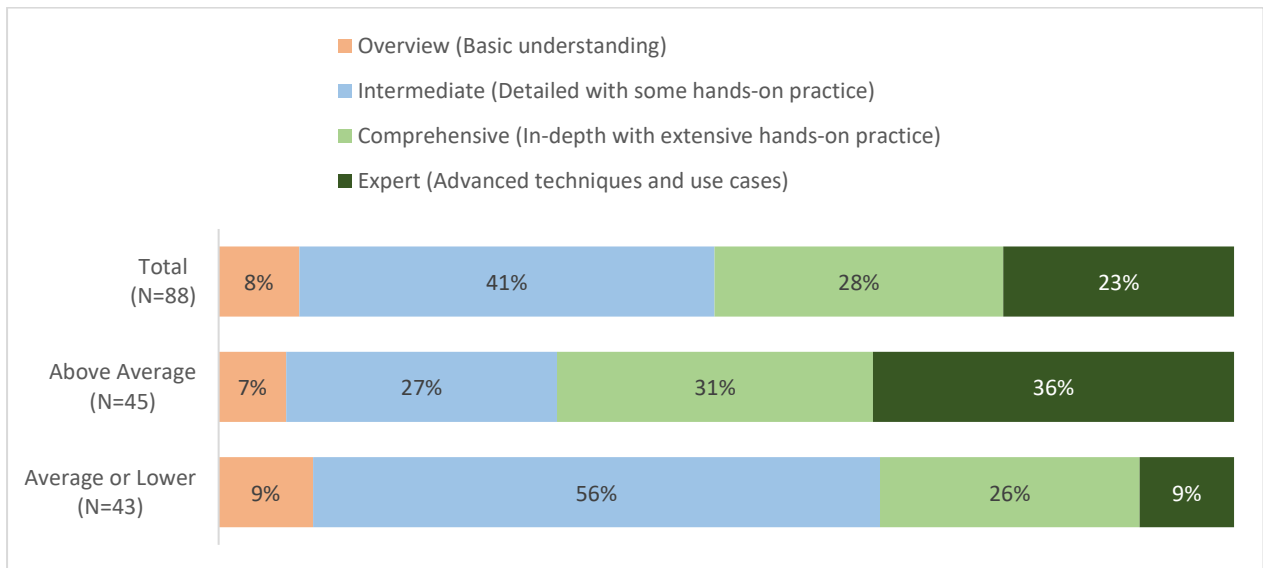
The largest difference between students with higher levels of overall knowledge and others is in the preference to learn by their own (16% for the average or lower knowledge students and 36% for others with higher knowledge). Also, there is a large difference for bachelor and master students regarding scheduling conflicts, respectively 41% and 27%.

Figure 8: Students: Barriers to attending training sessions by gender, degree, and the overall level of Digital Literacies Knowledge



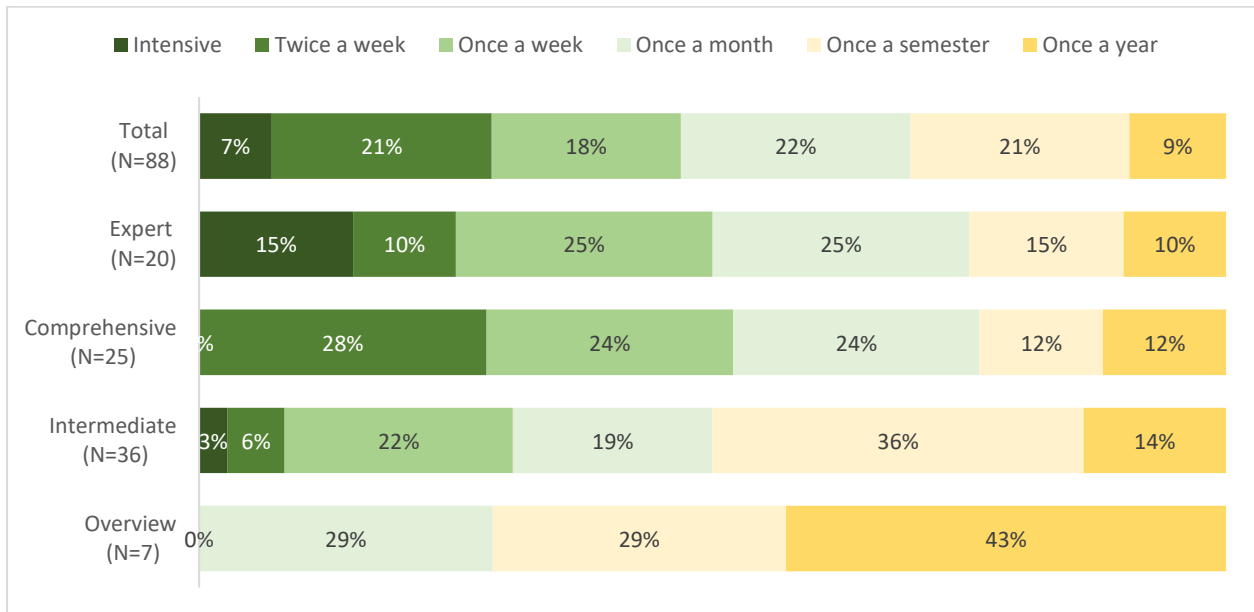
When asked about the preferred format of Digital Literacies training, 23% of students wanted expert-level training. More students with higher overall digital literacies knowledge prefer expert training 36% vs 9% for others.

Figure 9: Students: The preferred format of Digital Literacies training by the overall level of Digital Literacies Knowledge



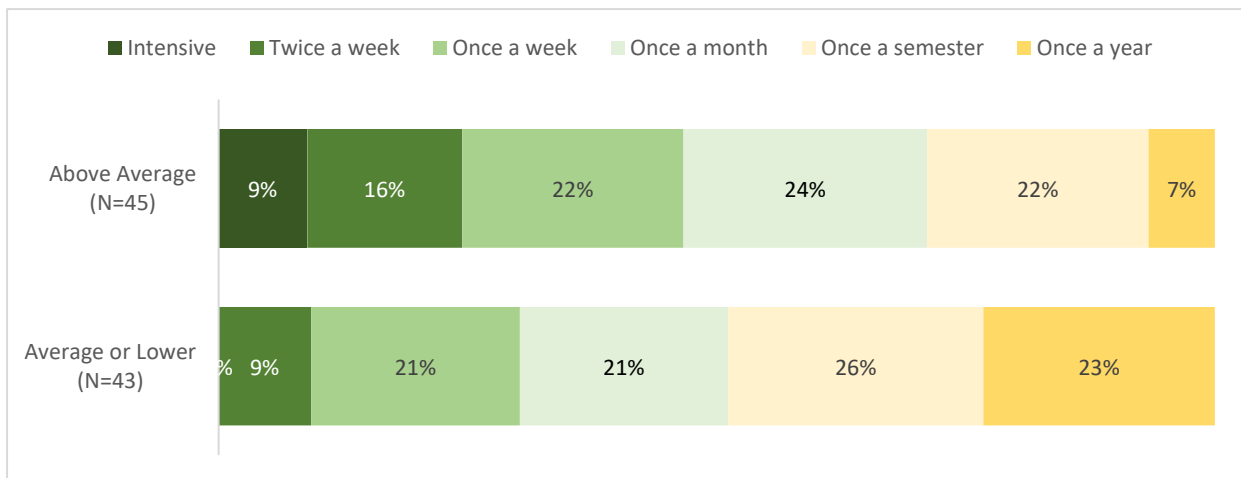
About 7% of the students are interested in taking an intensive course, while 21% prefer twice a week, and 18% once a week. Students who prefer Expert training want it to be more intensive compared to others.

Figure 10: Students - Frequency of the training sessions by desired training of students



Students with more overall level of Digital literacies knowledge prefer to take more intensive courses compared to others with a lower level of knowledge.

Figure 11: Students - Frequency of the training sessions by the overall level of Digital Literacies Knowledge

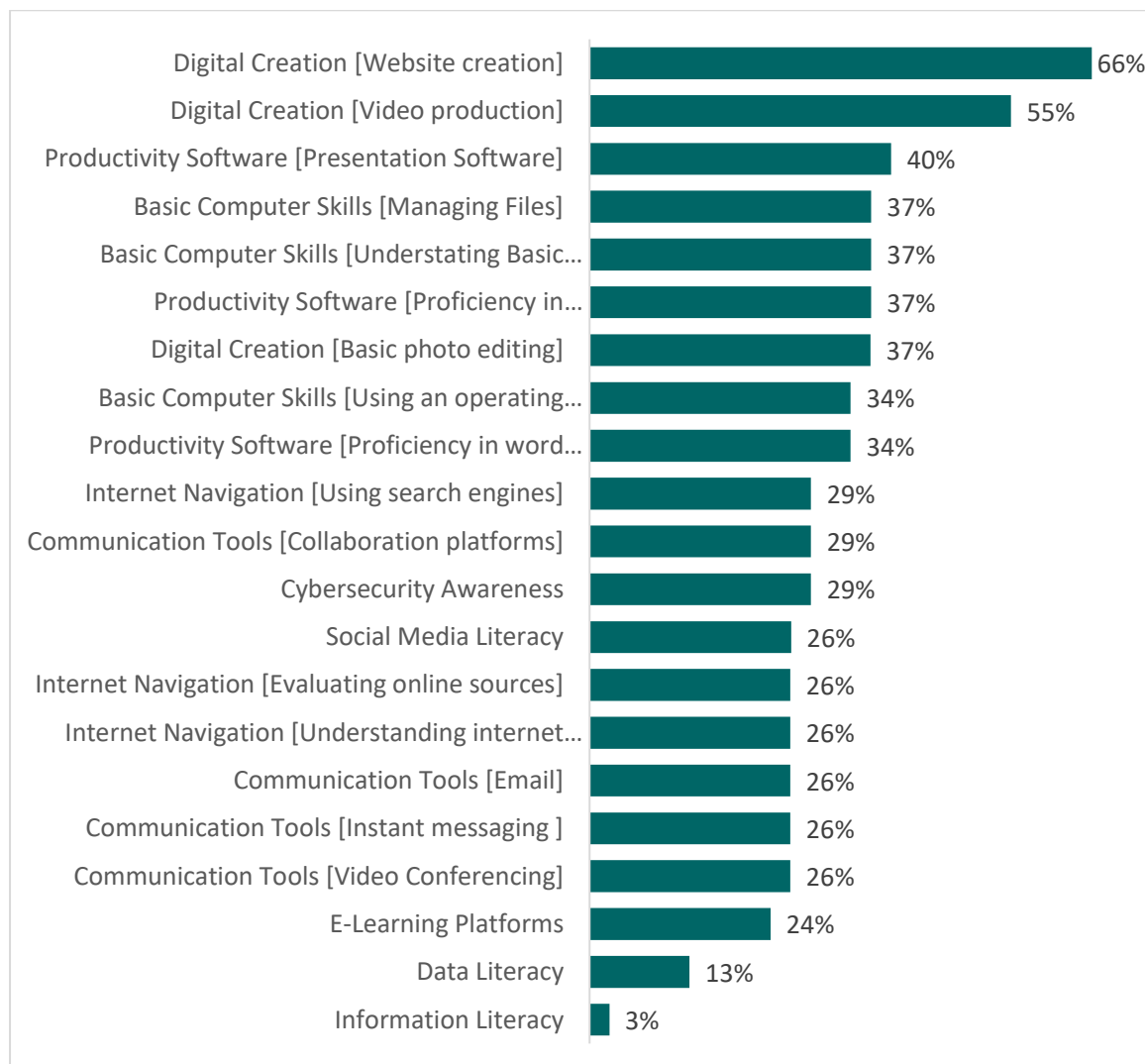


Findings from Focus Groups show that most of the students are concerned about the usage of the Digital tools. They say that Artificial Intelligence can change a person, destroy individuality and creativity of a person. One of the students said during the discussion that “I have the feeling that as Artificial Intelligence grows, our intelligence decreases and we have no need to develop”. That is why a lot of students are concerned because a lot of homeworks today can be done by AI without any effort of the student.

2.2 Findings regarding lecturers

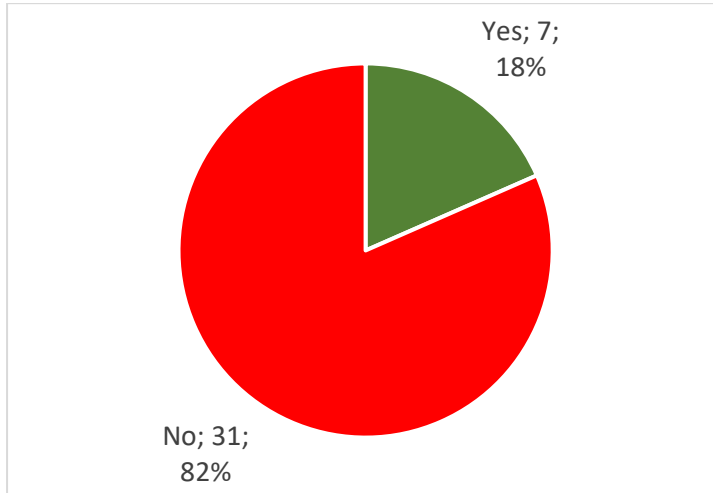
Results for Lectures show that they have less knowledge of Website Creation and Video Production, respectively 65% declare to have “No Proficiency” or “Limited Proficiency” in Website Creation and 55% in Video Production. Furthermore, more than 40% of the lecture respondents declare they have “No proficiency” or “Limited Proficiency” in Production Software (40%), Managing Files (37%), Proficiency in Spreadsheets (37%), and Basic Photo Editing (37%). Findings from Focus Group show that lecturers think they are relatively digitally literate.

Figure 12: Lecturers - Share of lecturers who have “no proficiency” or “limited proficiency” in Digital Literacies.



About 18% of the Lecturers at the University of Montenegro have participated in trainings related to digital literacies in the past years.

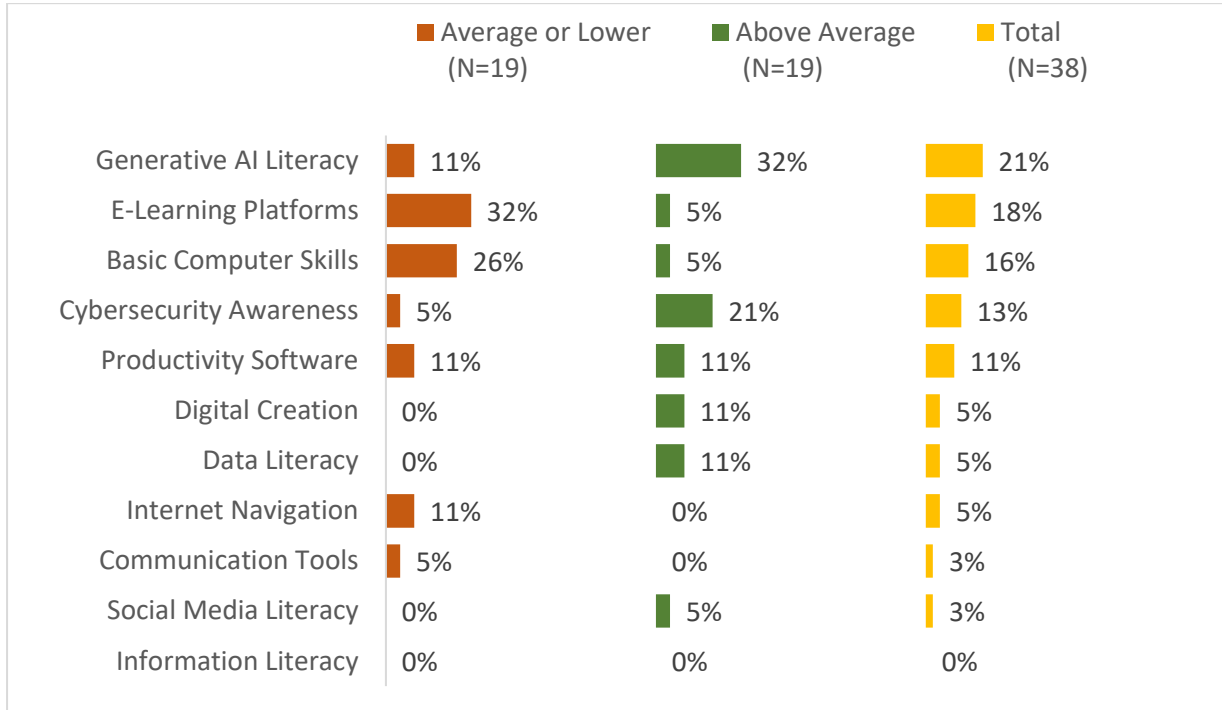
Figure 13: Lecturers - Participation in training in last years.



To measure what lectures need to be trained, it is created a new variable named knowledge, shows if a respondent has knowledge (for all the indicators) below the average or higher. When respondents had to choose the one most important skill they want to improve, 21% chose Generative AI Literacy (as ChatGPT, Claude; accessing Generative AI and understanding its capabilities). Results show that the second and third Digital Literacies they are more interested in improving are E-Learning Platforms (18%), and Basic Computer Skills (16%).

Disaggregation by the level of Knowledge on Digital Literacies shows that those who have a lower level of knowledge (Average or lower) are more interested compared to others with a higher level of knowledge in learning skills like E-Learning Platforms, Basic Computer Skills (Using operating system, managing files and understanding basic hardware, and in Internet Navigation. On the other hand, lecturers with a higher level of knowledge of Digital Literacies are more interested in the more advanced Digital Skills, like Generative AI Literacy, Cybersecurity Awareness, and Digital Creation, and Data Literacy.

Figure 14: Lecturers - Digital Literacy skills that lecturers want to improve the most by the Digital Literacy Knowledge level

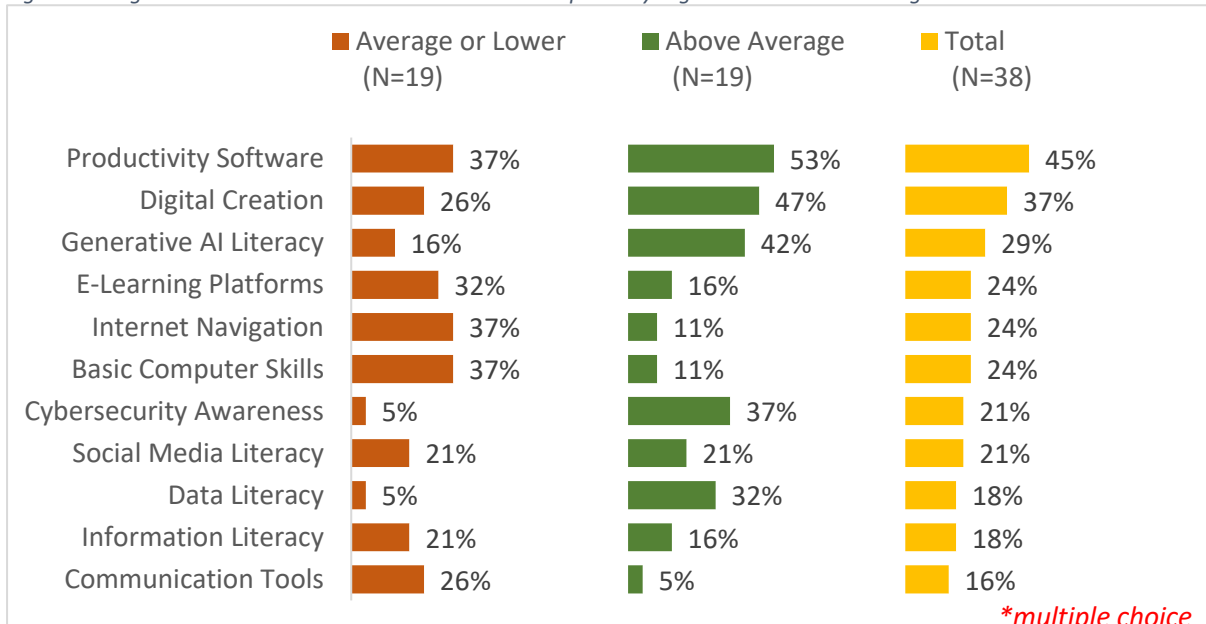


Another question in the survey is about what respondents are interested in improving but they can choose more than one answer and not only the one they are most interested in.

About 45% of the respondents are interested in improving their skills in Productivity Software (45% overall, 37% for those with average or lower level of knowledge, and 53% for those with a higher level of knowledge on Digital Literacy). 37% of the Lecturers want to improve their skills in Digital Creation.

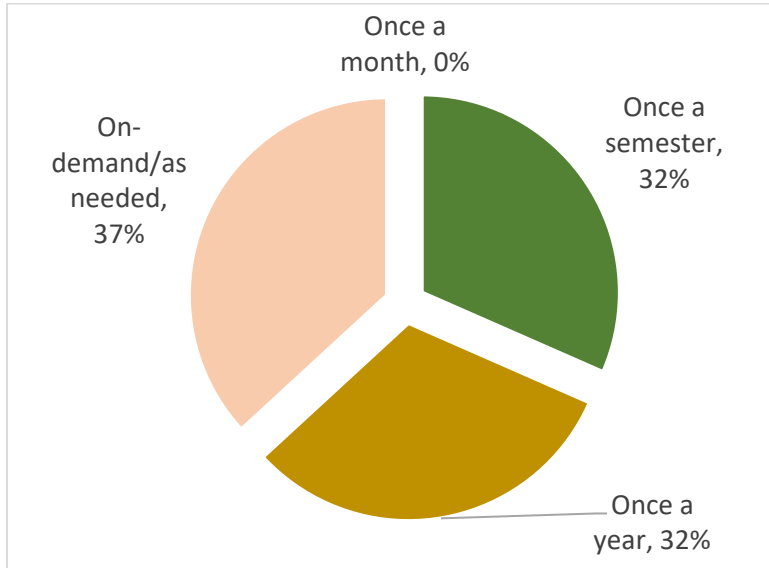
There are large differences regarding Digital Literacy Knowledge on what lecturers want to improve. The largest difference results in Cybersecurity Awareness (5% for those with average or lower level of knowledge, and 37% for those with a higher level of knowledge on Digital Literacy).

Figure 15: Digital Literacies skills that lecturers want to improve by Digital Literacies Knowledge level



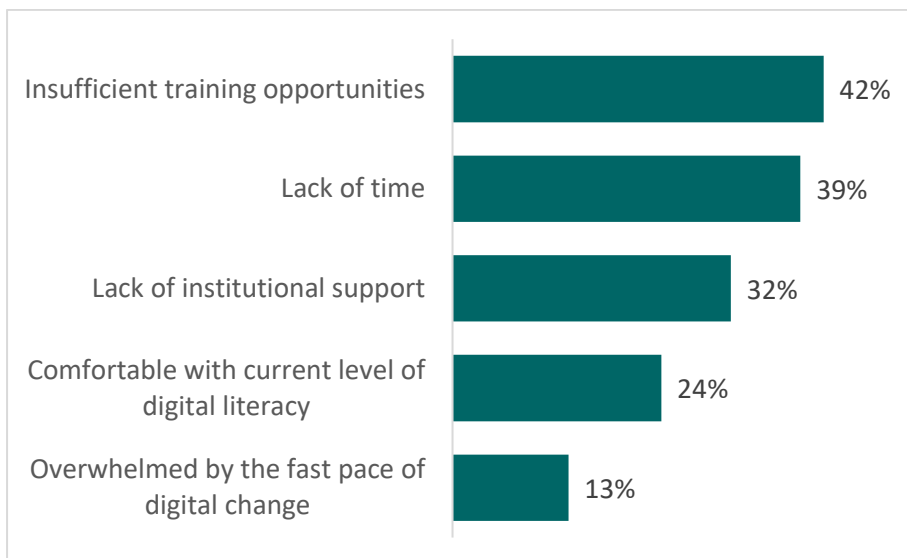
About 37% of the lecturers at University of Montenegro declare that they would like to receive Digital Literacies training “On-demand/As needed”. One-third of the respondents say they want those kinds of training once a semester (32%), and the other one-third once a year (32%).

Figure 16: Lectures - Frequency of desired training



When asked about barriers to improving their Digital literacies skills, 42% said that there are Insufficient Training Opportunities, 39% “Lack of time”, 32% “Lack of Institutional Support”, and 13% “Overwhelmed by the fast pace of digital change. About 24% of the respondents declare that they are comfortable with their current level of digital literacy.

Figure 17: Lectures- Barriers to attending training sessions



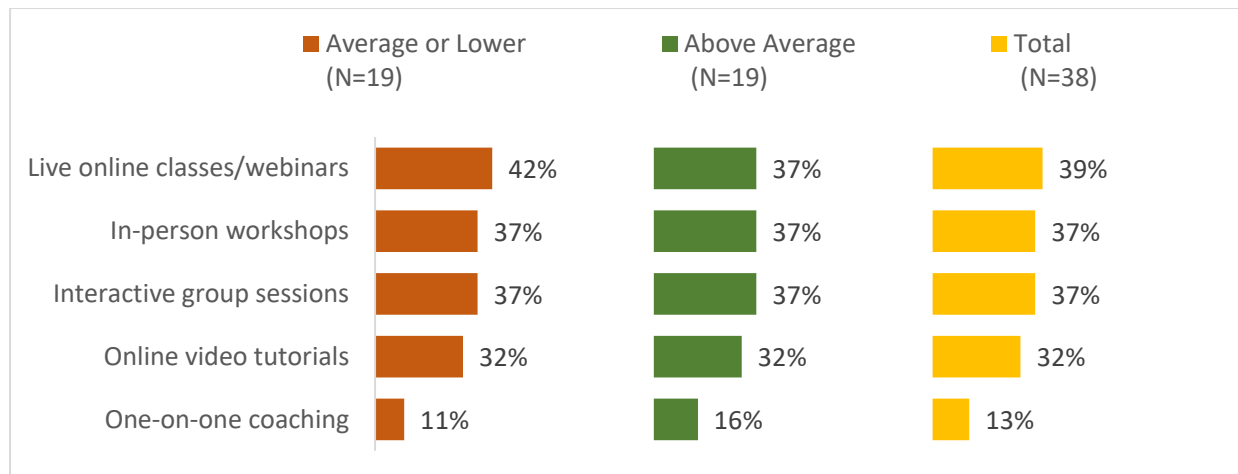
Preferred Training

About 39% of the respondents prefer Live Online Classes/Webinars related to Digital Literacies. The second and third most preferred formats of training are In-person workshops (37%) and Interactive Group Sessions (37%).

There is no significant difference in the format's preference regarding the level of Digital Literacies Knowledge.

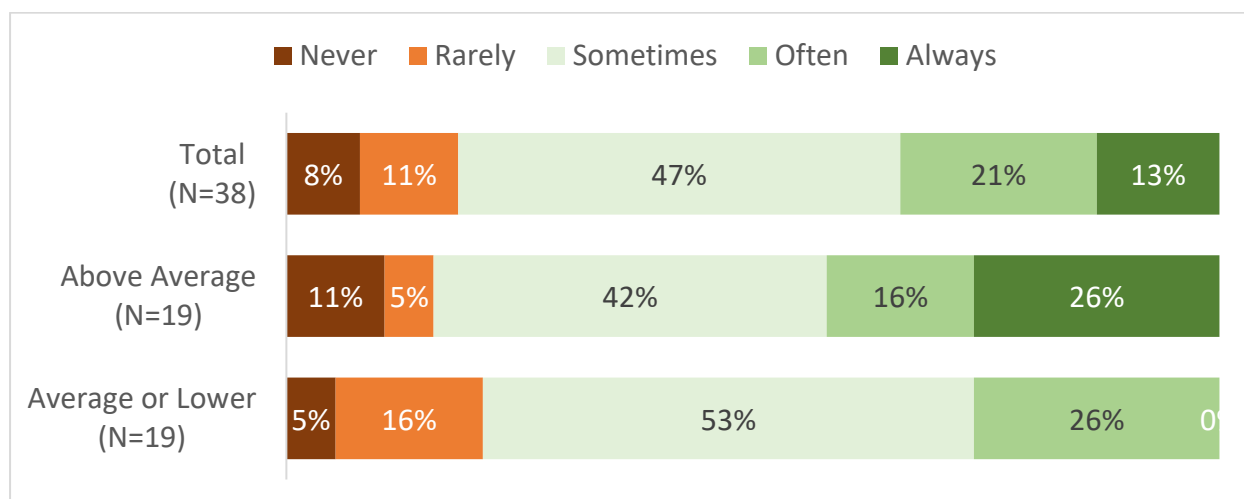
Findings from quantitative research are confirmed from Focus Groups, where it was not shown any difference on the preference between online and live training sessions. What is important for lecturers, is that those training should be conducted and both forms of training are good.

Figure 18: Lectures - Preferred formats of Digital Literacies training



When Lecturers were asked how often they use digital tools in their teaching, 13% declared to “always” use them (26% of those with a higher level of knowledge on Digital Literacies compared to 0% of others).

Figure 19: Lectures: Frequency of desired training by overall Digital Literacies Knowledge level

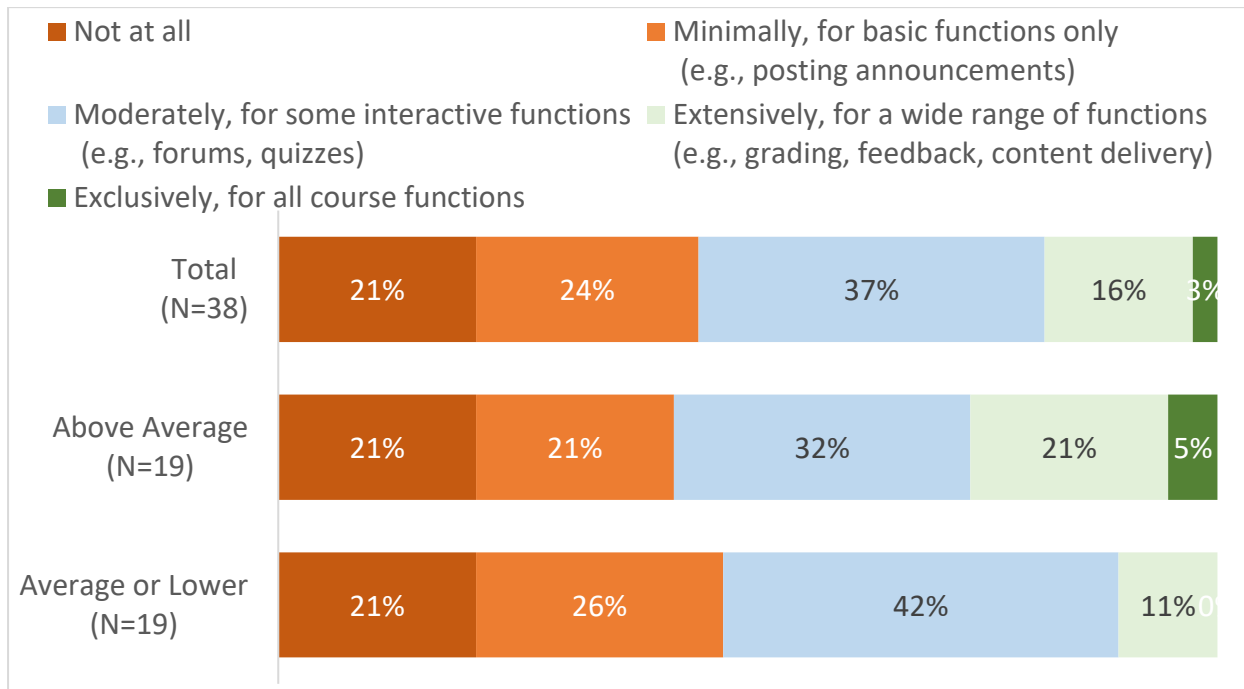


Lecturers were asked to what extent they integrate learning management systems in their courses. About 21% declared that they never integrated them (same for all groups). Disaggregation by the level of overall knowledge of digital literacy shows that 0% of lecturers with an average or lower

level of overall knowledge of Digital literacies integrate learning management system for all the courses, compared to 5% of those with a higher level of knowledge.

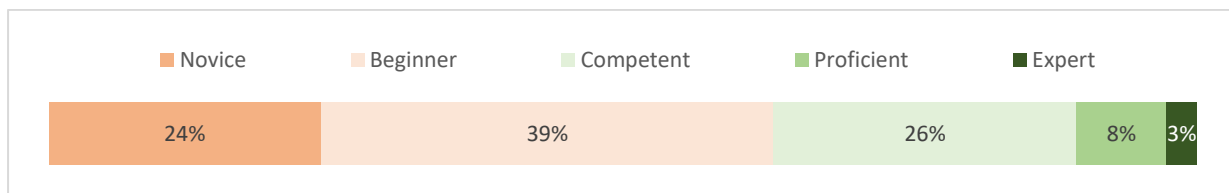
Results from Focus Groups show that lecturers use some digital tools that are useful for their teaching and the research. Professors of different fields use different digital tools, for example Language lecturers use Google Translate, lecturers of Faculty of Tourism use GIS tool, ARK GIS, Office, and a large number of professors use SPSS. Regarding educational tools professors use Zoom and that is because of the Covid 19 pandemic. Also, lecturers are familiar with Blue Button, Teams, and Moodle but they emphasize they prefer to do live classes.

Figure 20: Lecturer - Usage of Learning Management Systems in the Lecturer Courses



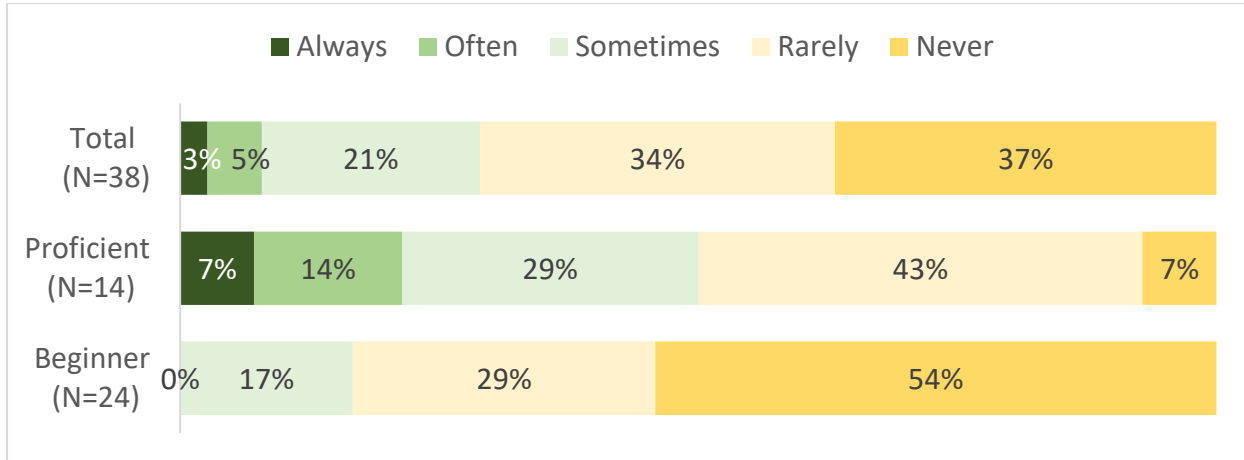
Results show that in using AI and machine learning tools, only 3% of lecturers consider themselves as “Experts”, 8% as “Proficient”, and 26% as “Competent”. On the other hand, 53% consider them self as “Beginner” or “Novice”

Figure 21: Lecturer - Usage of AI and machine learning tools



Only 7% of the lecturers who consider themselves proficient (Competent, Proficient, or Expert) in AI and machine learning tools always utilize them. On the other hand, 7% “never” or “rarely” utilize them in their research activities. On the other hand, only 17% of beginners often utilize AI and machine learning tools in their research activities and 54% who never utilize them in their research activities.

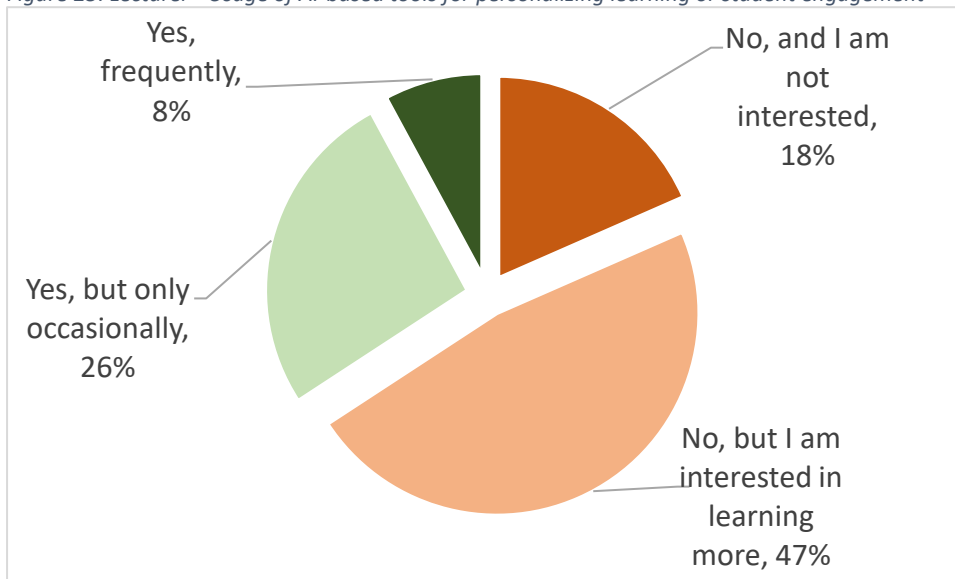
Figure 22: Lecturers - Usage of AI or learning machines by knowledge level of them



Only 8% of the lectures use frequently AI-based tools for personalizing learning or student engagement at University of Montenegro.

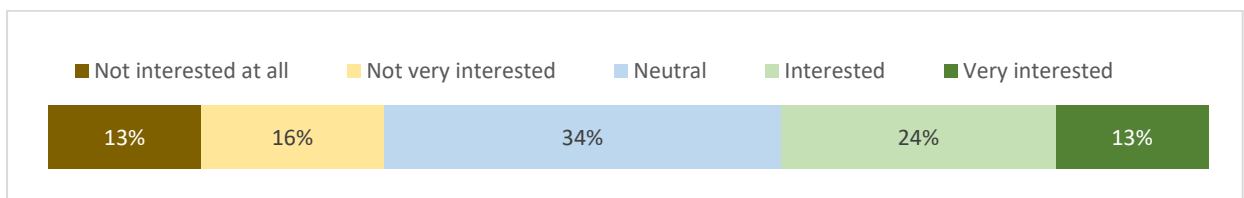
Almost half of the lecturers (47%) declare that they have not used AI-based tools for personalizing Learning or Student engagement, but they are interested in learning more.

Figure 23: Lecturer - Usage of AI-based tools for personalizing learning or student engagement



When Lectures are asked how interested they are in incorporating AI/machine learning into their curriculum, 13% are “very interested”, and 24% are “interested”.

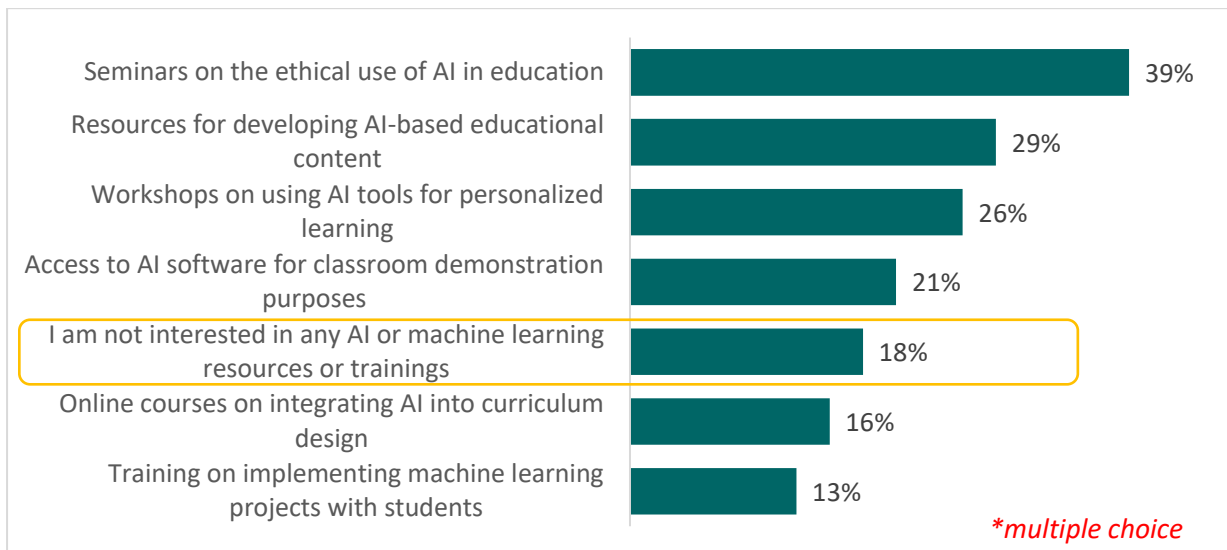
Figure 24: Lecturer - Level of interest in incorporating AI/machine learning into their curriculum



About 39% of the lecturers wish to have Seminars on the ethics of AI in education, so they can improve their teaching. Also, 29% of them want to have resources for developing AI-based educational content.

Only 18% of lecturers are not interested in any AI or machine learning resources or training.

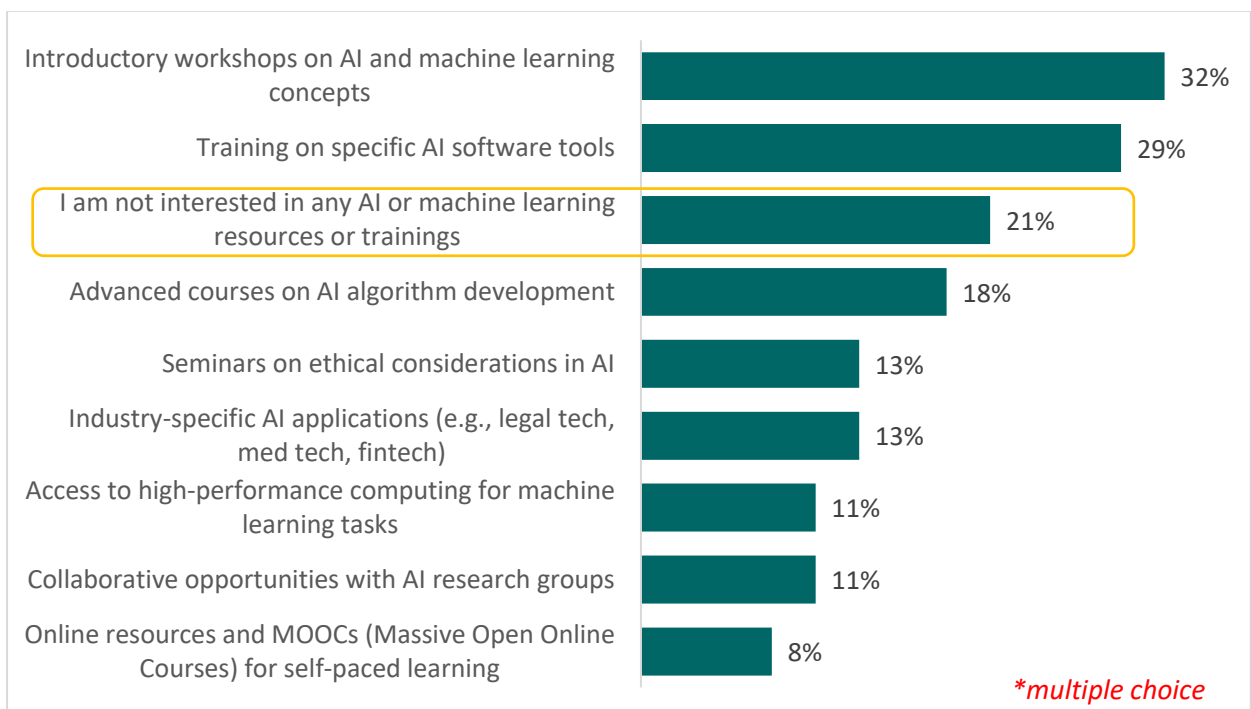
Figure 25: Lecturer - Desired resources or training that lecturers are interested in having access to improve their teaching



One-third of the lecturers are interested in Introductory workshops on AI and machine learning concepts (32%). About 29% of the respondents are interested in Training on specific AI software tools.

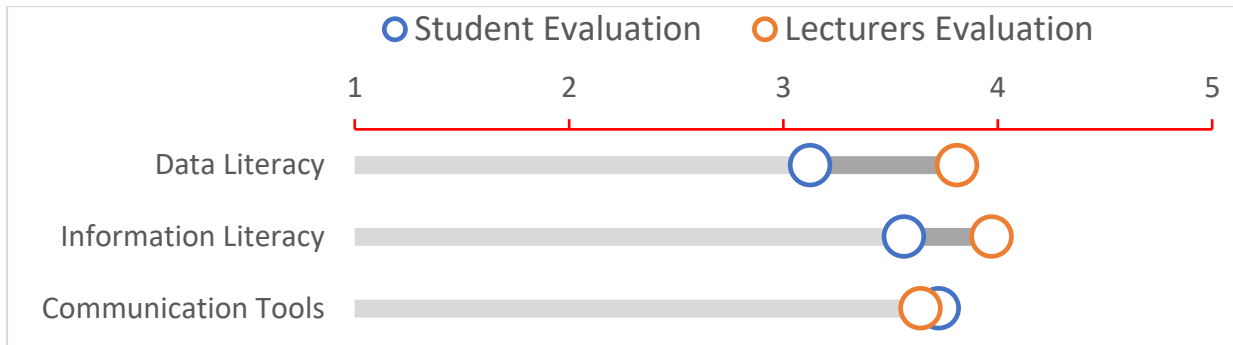
On the other hand, 21% of the respondents are not interested in any AI or machine learning resources or training.

Figure 26: Lecturer - Desired resources or training that lecturers are interested in having access to improve their research



To capture different perspectives on the evaluation of knowledge in Digital Literacies, in this study we have asked 3 similar questions to students for lecturers and the opposite. In opposite to how lecturers evaluate themselves on digital literacy, students think they have a lower level of knowledge, especially regarding Data Literacy.

Figure 27: Comparison of evaluation for Lecturers' knowledge, Student and Lecturer evaluation



Focus Group: Findings from Focus Groups show that lecturers want to be part of Digital Literacies training, because these training would help them in their work and professional development, as well in the quality of teaching. If lecturers get those trainings, then they would have the opportunity to share their knowledge with their students and teach them how to use those tools. Apart from advantages that Digital tools brings to society, most of the lecturers are concerned about the negative aspects. That is why they think that teachers should not let students to rely only on artificial intelligence. One of the professors' states that their only task now is to teach their students how to use the digital tools in the right way.

Lecturers ask to increase internet access, not only to professors but also to students, and to have good technical equipment so they can improve their teaching, and research activities using digital tools.

Stakeholders

Focus Groups were conducted with stakeholders and not only with students and lecturers. This way we can see the stakeholders view of the situation to better prepare students and lecturers for the demands of the contemporary digital landscape.

Stakeholders think that students do not have a higher level of Digital Literacies knowledge and they even think that the situation is much worse among the professors regarding usage of the Digital tools. The biggest problem with students is that even if they learn how to use some digital tool, they use it only for one certain subject and then they do not use it anymore so they forget it. Also, stakeholders say that students have better knowledge on using social media like Instagram that using properly a laptop.



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IV. CONCLUSIONS

Most of the students recommend to organize courses and workshops so they can be informed about certain topics, to build wider horizons. Also they suggest that those courses that they attend should be with certificates so it would be a useful reference for them.

Students state that internship programs should be available to them so they can be successful in their professional life.

In conclusion, findings underscore the strong desire among lecturers to engage in Digital Literacies training, recognizing its potential to enhance both their professional development and the quality of teaching. While acknowledging the societal benefits of digital tools, lecturers express concerns about potential drawbacks, emphasizing the need to guide students in using artificial intelligence responsibly. Moreover, lecturers advocate for increased internet access and quality technical equipment to further leverage digital tools in teaching and research activities.

According to stakeholders:

- Trainings about digital tools should start from the earliest age, from primary school
- The most important skill that students should improve is internet browsing as a basic skill
- Students need to improve digital marketing so it can help them in the future
- University should include digital tools in their curricula and they can learn from what others has done in this aspect
- To improve the infrastructure at the University (everyone to have computers)
- To collaborate with Ministry of Science, Education and Innovation, and with public organization.

There is a need for trainings for both students and professors regarding Digital Literacies and especially in the proper use of them. Stakeholders agree to collaborate with the university so they can help students improve their digital literacy knowledge as the need market. Knowledge of Digital tools and especially about Data Literacy is very important because the job market need people who know these skills.





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EVENT DISSEMINATION REPORT

Name				
Activity	Location (Place, City)	Date	Target Audience	Participants reached
Final report for the pre-evaluation and need assessment of digital literacies	Online meeting	29 January 2024	Internal Meeting of Steering Committee	All project partners / Steering Committee
Dissemination Event <input checked="" type="checkbox"/>	Communication Event <input checked="" type="checkbox"/>			
<p>Brief description of the event:</p> <p>Project partner SCiDEV finalizes the Digital Needs Assessment within the U2SID project. The team presented to the project partners, the findings and the data gathered from students, lecturers, and stakeholders during a two-month assessment period. The findings were compiled in a final report with recommendations which will soon be published on website and social media.</p> <p>The objective of the Digital Needs Assessment was to conduct an evaluation of the current state of digital literacies among lecturers and students in 4 partner universities of the U2SID project namely: University of Shkodra “Luigj Gurakuqi”, University of Korça “Fan S. Noli”, Mediterranean University of Albania, and University of Montenegro. The final report identified the gaps in knowledge, skills and infrastructure that hinder the effective use of digital tools and resources in teaching and learning environments in the universities involved in this project in Albania and Montenegro. The study also included the perspective of stakeholders who are impacted by the digital literacies of lecturers and students that include administrative staff, IT personnel, policy makers and employers. Their input was important to provide an understanding of digital literacies needs, expectations and the potential barriers to implementing digital literacies programs.</p> <p>This report will inform with evidence the future activities to be implemented by the project partners such as the Digital Literacies Accelerator Programme and the Digital Transformation Challenge. SCiDEV methodology included both quantitative and qualitative data collection methods, harmonizing them to draw a reliable picture of the digital literacies needs and gaps. The online questionnaire as the main quantitative method gathered data from 705 students and 199 lecturers where they self-reported their competencies in digital literacies, their habitual use of digital resources, their preferences for certain technologies and their perceived needs for further support and development.</p>				





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The qualitative approach was accomplished through structured focus groups discussions, where they revealed the personal experiences, contextual factors that shape individuals engagement with digital tools and resources. The qualitative approach conducted by all 4 partner universities had in focus students, lecturers and stakeholders with a total of 12 focus groups and 146 participants.

Some of the key findings from the online survey and the 12 focus group conducted during two month period November-December 2023 as shown below encompass the needs of the target groups in 4 partner universities.

Students : Students are most interested in improving Digital Creation (16 %) and Basic Computer Skills (15%). Findings indicate a lack of awareness regarding accessible training opportunities, which constitutes the primary obstacle hindering student participation in Digital Literacies Training. The preferred format of training is Online Video Tutorials (48%), and In-Person Workshops (37%). Findings from Focus Groups show that face-to-face training is preferred over online training, but they show a preference for Online Video Tutorials.

Lecturers: More than half of lecturers (56%) mention that the main barrier to attending to attending Digital Literacy training the Insufficient training opportunities, while 30% lack time. Lecturers are open to all kinds of Digital Literacy Training (52% prefer Interactive Group Sessions, 43% Online Video Tutorials, 42% In-Person Workshops, 41% Live Online Classes/Courses) – multiple choice. Digital tools are used always in teaching by 18% of lecturers, 39% often, 33% sometimes, and so on.

Stakeholders: During the focus group discussions the stakeholders emphasize the Significant discrepancy between digital skills learnt from university and the ones required in the professional realm. There is a Disparity in digital skills across different academic levels. Stakeholders overall claim a lack of continued application leads to skills attrition over time.

Based on the key findings from the report, SCiDEV team of experts compiled some of the below recommendations, where they emphasize the need of a comprehensive and extensive intervention in the digital literacies university programs in the Western Balkans.

Enhancement of University Infrastructure – requirement to invest in technology infrastructure are important to the improvement of digital literacies of students.

Optimization of Online Library Access – enhancement of online library access and support to the students to increase their outputs relying on the wealth of information available to them.





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Strengthening of Digital Literacies Training – enhancement of academic performance, employability, and lifelong learning through comprehensive Digital Literacies Training through skills and competencies required to use technology effectively, critically, and ethically.

Curricular Adaption for the Digital Future – development of new curricula to provide education fit for the needs of the labor market and the ever-evolving digital landscape.

Continuous Engagement and Development – foster continuous engagement and regularly review and enhance collaborative programs with students – lecturers – stakeholders.

The Final Report for the Pre-Evaluation and Need Assessment of Digital Literacies gives valuable insight in the current landscape of digital literacies in the four partner universities in Albania and Montenegro. The emerging consensus points towards a need for enhanced IT and digital infrastructure, face-to-face digital literacies training, and collaborative efforts across various sectors. The published report will be pivotal in shaping the strategies and initiatives of the Digital Literacies Accelerator Programme and the Digital Transformation Challenge.

Evidence (social media links, websites, press reports, photo/video links)





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Students - Key Findings (II)

- Students are most interested in improving **Digital Creation (16%)** and **Basic Computer Skills (15%)**.
- The preferred format of training is **Online Video Tutorials (48%)**, and **In-Person Workshops (37%)**. Findings from Focus Groups show that face-to-face training is preferred over online training, but they show a preference for Online Video Tutorials.
- The findings indicate that a **lack of awareness regarding accessible training opportunities** constitutes the primary obstacle hindering student participation in Digital Literacy Training.
- About **15%** of students would like training to be at the **expert level**, **32% Comprehensive**, **35% Intermediate level**, and **18%** just to have a **basic understanding**.
- About **45%** of students would prefer training to be **at least once a week**.

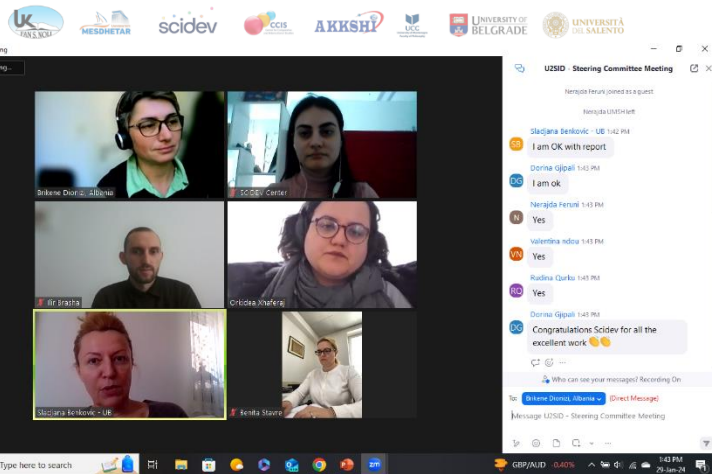
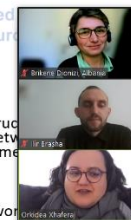
Conclusion and Recommendations

Students

- Formalization of Communication
- Enhancement of University Infrastructure
- Optimization of Online Library Access
- Adoption of modern teaching methods
- Strengthening of Digital Literacies Training
- 6. Curricular Adaptation for the Digital Future: Integrate digital tools into the curriculum to align educational programs with the demands of the evolving digital landscape.

Lecturers

- Improved technology infrastructure (new computers, improved network, Access to WiFi, etc.)
- Enhancement of University Infrastructure
- Access to Online Libraries
- Institutional strategic framework of digital literacies
- Curricula and trainings on digital literacies
- Standardized tools and platforms at the university level.
- Erasmus+ knowledge sharing.
- Ensuring a flexible legal framework.
- Privacy and Security Training





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EVENT DISSEMINATION REPORT

Name				
Activity	Location (Place, City)	Date	Target Audience	Participants reached
Launching Digital Need Assessment within the U2SID project	Online	13/11/2023	All project partners	All project partners
Dissemination Event <input checked="" type="checkbox"/>	Communication Event <input checked="" type="checkbox"/>			
<p>Brief description of the event:</p> <p>Project partner SCiDEV launches the Digital Needs Assessment within the U2SID project. The team compiled the methodology and instruments which will be used to gather data from students, lecturers, and stakeholders for the next two months. The findings of which will be compiled in a final report with recommendations which will be published on website and social media.</p> <p>The objective of this assessment is to conduct an evaluation of the current state of digital literacies among lecturers and students in 4 partner universities of the U2SID project namely: University of Shkodra, University of Korca, Mediterranean University of Albania and University of Montenegro. This study intends to identify gaps in knowledge, skills and infrastructure that may be hindering the effective use of digital tools and resources in teaching and learning environments in the universities involved in this project in Albania and Montenegro. The study also seeks to include diverse perspectives of stakeholders who are impacted by the digital literacies of lecturers and students. This input from groups such as administrative staff, IT personnel, policy makers and employers, will provide an understating of digital literacies needs, expectations, and the potential barriers to implementing digital literacies programs.</p> <p>SCiDEV methodology approach for this assessment on digital literacies is both quantitative as well as qualitative. The quantitative instruments of the research are online questionnaires for lecturers and students so they can self-report competencies in digital literacy, their habitual use of digital resources, and their needs for future support. The qualitative instruments are focus groups discussions organized by each partner with lecturers, students, and stakeholders. These discussions will inform us on experiences and specific circumstances that have shaped their use and understating of digital tools. The methodology and its instruments was designed to facilitate an understating of the subject in an academic</p>				





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context and inform with evidence the future activities to be implemented by the project partners such as the Digital Literacies Accelerator Programme and the Digital Transformation Challenge.

Evidence (social media links, websites, press reports, photo/video links)

If you wish to learn more about our methodology and research instruments (please attach the methodology PDF)

If you are a student and wish to take the survey, follow the link: <https://forms.gle/B2FzG5erHnVWut546>

If you are a lecturer and wish to take the survey, follow the link: <https://forms.gle/tJLBEQzErj46ED677>

<https://www.facebook.com/U2SIDPROJECT/posts/pfbid0QJBZsJ87CwKJSrXrKFTnAL6sXW3ecdBA653vqo2wQ14WGCjzo8ZjNoNrAa3pahSI>





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Recording...

Microsoft PowerPoint slide titled "Digital literacies definition" with the following content:

Digital literacies definition

- Basic Computer Skills: Using an operating system, managing files, and understanding basic hardware.
- Internet Navigation: Using search engines, evaluating online sources, and understanding internet safety.
- Productivity Software: Proficiency in word processing, spreadsheets, and presentation software.
- Communication Tools: Email, instant messaging, video conferencing, and collaboration platforms.
- Digital Creator: Basic photo editing, video production, or website creation.
- Information Literacy: Finding, evaluating, using, and citing digital information.
- Cybersecurity Awareness: Understanding of personal data protection, password security, and awareness of phishing scams.
- Social Media Literacy: Creating content, understanding digital footprints, and privacy settings.
- Data Literacy: Understanding of data collection, analysis, and interpretation.
- E-Learning Platforms: Navigating online learning systems and digital libraries.

Logos at the bottom include UK, scidev, AKKSHI, and others.

Zoom Meeting sidebar on the right shows participants: Enkera Gjoni, Albana; SULEJA CENTER; Nisazla KRICOSAP; Merta iPhone; Sllazara VETROCIU; Epko BASHUTAJI; Bleriana BIRI SCIDOV; Renata STARRI; Rudina QANTU; Dorrela KALITANI; Nikajda FERATI; Holta HACA; Suela; Adrian LEKA; Nijarja; Valentina NDOSU; Ajkuna; Dikilda ROLLATI; Ajkuna.

Zoom Meeting

Recording...

Zoom Meeting grid showing participants:

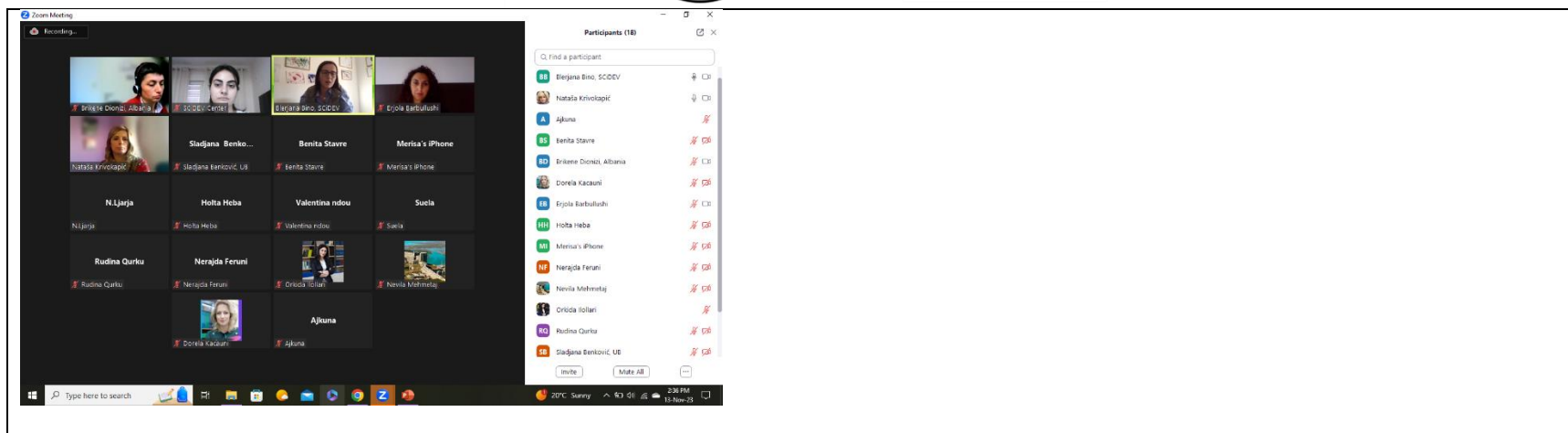
- Enkera Gjoni, Albana
- SULEJA CENTER
- Nisazla KRICOSAP
- Merta iPhone
- Sllazara VETROCIU
- Epko BASHUTAJI
- Bleriana BIRI SCIDOV
- Renata STARRI
- Rudina QANTU
- Dorrela KALITANI
- Nikajda FERATI
- Holta HACA
- Suela
- Adrian LEKA
- Nijarja
- Valentina NDOSU
- Ajkuna
- Dikilda ROLLATI
- Ajkuna

System tray at the bottom shows: 20°C Sunny, 3:00 PM, 10-Nov-21.





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EVENT DISSEMINATION REPORT

Name				
Activity	Location (Place, City)	Date	Target Audience	Participants reached
Focus groups “Need Assessment of lecturers, students and stakeholders on digital literacies”	All partner universities located in Shkodra, Korca, Tirana and Montenegro	Throughout End of November and December 2023	Students and lecturers from all partner universities, stakeholders in the fields of media, business, public institutions, civil society organizations which operate in the cities where all partner universities are located.	In all university partners the focus groups taken place in total have conducted 12 focus groups and have reached 146 participants, students, lecturers and stakeholders.
Dissemination Event <input checked="" type="checkbox"/>	Communication Event <input checked="" type="checkbox"/>			
<p>Brief description of the event:</p> <p>During the months of November and December, U2SID partner universities conducted focus groups with students, lecturers, and stakeholders on digital literacies, as part of the Need Assessment Survey Study on digital literacies, which will be used to develop the Digital Literacies Accelerator Programme and the Digital Transformation Challenge. The Need Assessment Survey has been launched by the project partner SCiDEV within the U2SID project, the team compiled the methodology and instruments, where the findings will be compiled in a final report with recommendations which will be published on the website and social media. SCiDEV methodology approach was both quantitative and qualitative. The qualitative instruments were focus groups discussions organized by University of Shkodra “Luigj Gurakuqi”, University “Fan.S.Noli” Korçë, Mediterranean University of Albania, and University of Montenegro, with lecturers, students and stakeholders. These discussions have informed the project team on experiences and specific circumstances that have shaped the understanding and use of digital literacies. A total of 12 focus groups were organized, 3 in each partner university, with a total of 146 participants: 54 students, 45 lecturers and 47 stakeholders.</p>				





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Students: Students focus groups gathered data on their experiences, challenges and needs regarding digital skills, digital tools, AI, and Machine Learning in higher education. All partners ensured meaningful discussion and diversification of data selecting students from different study programs and both cycles Bachelor's and Master's. The discussions within the groups focused on various aspects of digital literacies, including students' proficiency in using digital tools, their online information evaluation skills, familiarity with digital resources, and any challenges they face in the digital landscape. Topics included online safety, ethical use of technology, and strategies for improving digital literacies. Even though the focus groups took place in different universities and there is a diverse array of answers and discussions there seems to be a consensus that they are familiar with many digital tools and use them in their study life such as office packet and online meeting tools as well as specific programs on e-learning. All students have shown their willingness to learn more and are interested in Digital Literacies training and they request that the trainings take place in a face-to-face setting with trainers and not online.

Lecturers: Lectures/Academic Researchers focus groups gathered data on their experiences, challenges, and needs related to digital literacies, digital tools, AI, and machine learning in both teaching and research domains. As in the students focus groups, lecturers who participated were from a diverse academic background and faculties. Topics covered included the current state of digital literacy among lecturers and how they integrate digital tools into their curriculum. Lecturers were queried about their familiarity with machine learning and e-learning platforms and how these platforms support their teaching and research processes. This approach helped identify challenges and opportunities associated with digitalization, particularly in adapting these platforms to accessible systems for students. Participants were further inquired about the types of professional development or training they would find beneficial in enhancing their proficiency with digital tools and AI in their professional endeavors. The consensus of these focus groups for the 4 universities was that there is a lack of necessary IT Logistics infrastructure, which is needed to provide digital support toward efficient teaching and research processes. All lecturers were interested in Digital Literacies Training, but as students, they would prefer for it to happen face to face not online.

Stakeholders: Stakeholders focus groups gathered data on enhancing digital literacy skills among academics and students to better prepare them for the demands of the contemporary digital landscape. Stakeholders came from different backgrounds such as banks, public institutions, non-profit organizations and enterprises, AI sector, startup companies, digital agencies, and NGO sector. During the group discussion stakeholders agreed that digital literacy is very important in education as a tool that can help students to acquire certain knowledge more easily, as well as to better prepare them for performing the right skills in their future profession. All of them agree that to increase digital literacy of students and professor, it is necessary to make some systematic change in educational system. Stakeholders are concerned that there is no effective use of digital literacy tools in universities. They suggest that they need to start training on Digital Literacies since primary school, there should be introduction and hands on experience with digital tools not just training, there should be improvement of infrastructure for all students and equal opportunities should be provided for all students. The most important is the need for collaboration among stakeholders, the university, and students as the best way to improve their digital literacy skills and prepare them for future work.





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Evidence (social media links, websites, press reports, photo/video links)

<https://u2sid.al/news/launching-digital-need-assessment-within-the-u2sid-project>

<http://unkorce.edu.al/pervojat-e-pedagogeve-gjate-perdorimit-te-mjeteve-dixhitale-dhe-inteligjences-artificiale-ne-mesimdhene-dhe-ne-punen-kerkimore-u-diskutuan-ne-takimin-e-zhvilluar-ne-kuader-te-projektit-u2sid/>

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<https://www.facebook.com/U2SIDPROJECT/posts/pfbid02cRrYsjbX4uCbq9pGzEGmPQEVwbybH1CHfn9KHTTwAvWL5AfjikfDqDb7vHc8GKLyl>

<https://www.facebook.com/U2SIDPROJECT/posts/pfbid0uhXns4ZfLqujHbNETY4SnQa7rbUvtABzjNs5tVqn3bKjPq93GFpzVR6hEg8R8krxl>

<https://www.facebook.com/U2SIDPROJECT/posts/pfbid02CZHjgK4oCVapnnszEWLSuddgRpXQV2YcfsRRB2dP39bBpB9kAiQxFUVqDMGVvsycl>



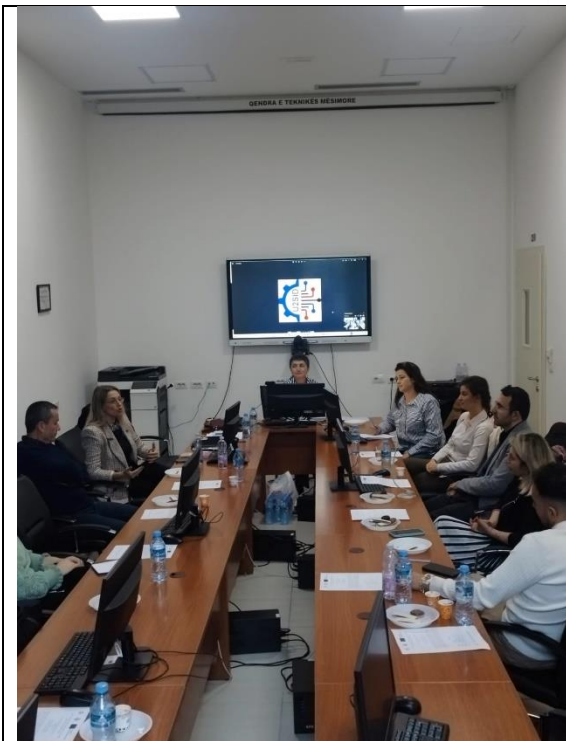


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Notes:

Check the relevant box, if it is a dissemination or communication event. Or both boxes, if it is a communication and dissemination event.

Add rows as necessary





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Methodology and Instruments for the pre-evaluation and need assessment of digital literacies

Deliverable 2.2 – task leader SCiDEV



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Objective

Conduct an evaluation of the current state of digital literacies among two primary groups within the academic sphere: lecturers and students in 4 partner universities

Methodology

For the quantitative portion of our study, we'll be gathering data through specially designed questionnaires to both lecturers and students

Alongside the questionnaire, our study will incorporate structured focus group discussions, steered by discussion guides that are informed by our initial literature review and the early results of the questionnaires





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Digital literacies definition

- Basic Computer Skills: Using an operating system, managing files, and understanding basic hardware.
- Internet Navigation: Using search engines, evaluating online sources, and understanding internet safety.
- Productivity Software: Proficiency in word processing, spreadsheets, and presentation software.
- Communication Tools: Email, instant messaging, video conferencing, and collaboration platforms.
- Digital Creation: Basic photo editing, video production, or website creation.
- Information Literacy: Finding, evaluating, using, and citing digital information.
- Cybersecurity Awareness: Understanding of personal data protection, password security, and awareness of phishing scams.
- Social Media Literacy: Creating content, understanding digital footprints, and privacy settings.
- Data Literacy: Understanding of data collection, analysis, and interpretation.
- E-Learning Platforms: Navigating online learning systems and digital libraries.





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Assessment instruments:

- Questionnaire for Students/Lecturers (google form)
- Focus group guide for Students/Lecturers

Templates:

- Reporting findings of focus groups
- Dissemination of focus groups on social media and website

Starting date – 13th November 2023

Completion of task – 31st December 2023





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WP2 – Digital Literacies Accelerator Programme
Deliverable 2.2 Study on Results of WP2

Task 2.1.1 Need assessment and pre-evaluation survey – led by SCiDEV, deadline 31.12.2023

This document presents the work plan with key tasks and roles for the completion of the need assessment or the pre-evaluation survey of digital literacies within WP2 and Deliverable 2.2. Study on Results of WP2. This pre-evaluation assessment will be then followed by a post evaluation once the activities of WP2 are completed (workshops Belgrade and Salento, collaborative training workshops with academia and stakeholders, training of students) and a final study report will be produced and published within 30.06.2024.

In this table the sub-tasks are detailed for the first part of the Deliverable 2.2 Study on Results of WP2 with the timeframe till 31.12.2023.

Tasks and role of each partner

#	Sub-Task	Description	Lead	Role of each partner	Deadline
1	Development of methodology for need assessment (pre-evaluation) of lecturers and students on digital literacies	SCiDEV develops methodology document for the pre-evaluation or need assessment which serves as a guiding tool for partners to collect data	SCiDEV	SCiDEV develops methodology document	10.11.2023
2	Development of focus groups guidelines: a. lecturers b. students c. stakeholders	Guideline per each focus group to be organized with a. lecturers b. students c. stakeholders Each focus group has guiding questions for the discussions Each partner uses this guideline to organise the focus groups in their university	SCiDEV	SCiDEV developed the guidelines – 3 in total, one per each focus group	10.11.2023





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<p>3 Development of questionnaire</p> <p>a. lecturers b. students</p>	<p>SCiDEV develops two questionnaires to assess needs for digital literacies</p> <p>One questionnaire for lecturers</p> <p>One questionnaire for students</p> <p>Questionnaire to be administered by each partner online</p>	<p>SCiDEV</p>	<p>SCiDEV develops two questionnaires and creates the google form per each of them</p>	<p>10.11.2023</p>
<p>5 Roll out of online questionnaire</p> <p>a. lecturers b. students</p>	<p>Each partner distributes the link of the questionnaire to ALL academic staff in their university and ensures maximum response rate possible</p> <p>Each partner distributes the link of the questionnaire for students to Bachelor and Master students and ensures maximum response rate possible</p> <p>The timeframe for completion including reminders is 13-24 November</p>	<p>University of Shkodra</p> <p>University of Korca</p> <p>UMSH</p> <p>University of Montenegro</p> <p>AKKSHI</p>	<p>4 U2SID partner universities distribute the link to all their academic staff to fill in the questionnaire</p> <p>AKKSHI/NASRI shares the link with their university contacts to fill in the questionnaire</p> <p>4 U2SID partner universities distribute the link to Bachelor and Master students</p> <p>University of Shkodra shares the links on social media with dedicated posts for academics and for students accompanied with relevant posters</p>	<p>13 – 24 November 2023</p>
<p>6 Organisation of 3 focus groups per each partner</p> <p>a. 1 with lecturers b. 1 with students c. 1 with stakeholders</p>	<p>Each focus group has about 10-12 participants, facilitated by U2SID project team at each of university partners.</p> <p>Each focus group last 1-2 hours</p> <p>Attendance lists, consent for photos, Photos, recordings and reports with discussion results in English produced by each partner for each focus group, plus photos and brief descriptions for social media</p>	<p>University of Shkodra</p> <p>University of Korca</p> <p>UMSH</p> <p>University of Montenegro</p>	<p>4 U2SID partner universities organizes 3 separate focus groups</p> <p>a. 1 with lecturers b. 1 with students c. 1 with stakeholders</p>	<p><u>13 – 30</u> November 2023</p>





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7	<p>Draft data analysis reports</p> <ul style="list-style-type: none"> • Focus groups • Questionnaire 	<p>Each partner develops reports per each focus group based on template provided by SCiDEV in English</p> <p>Each partner produces dissemination report with photos and brief description of all three focus groups to be shared on project website by Uni Shkodra</p> <p>The questionnaire will be analysed by SCiDEV for all partners</p>	<p>University of Shkodra</p> <p>University of Korca</p> <p>UMSH</p> <p>University of Montenegro</p>	<p>4 U2SID partner universities develops reports per each focus group based on template provided by SCiDEV in English</p> <p>4 U2SID partner universities produces dissemination report with photos and brief description of all three focus groups to be shared on project website by Uni Shkodra</p> <p>University of Shkodra ensures social media visibility and publication of website</p>	8.12.2023
8	Final data analysis and interpretation	SCiDEV will compile the final report: Introduction, Methods, Findings and Analysis, Recommendations	SCiDEV	SCiDEV final report	18.12.2023
9	Draft final report with recommendations shared with partners for input and comments	<p>The draft final report will be shared with partners for input and comments, if any.</p> <p>SCiDEV will ensure proof reading and design of report</p> <p>A steering committee meeting will be organized by Shkodra University to approve the report</p>	SCiDEV all partners	<p>All partners read the draft report and provide feedback</p> <p>University of Shkodra organized steering committee meeting to approve the report</p>	22.12.2023
10	Publication of final report	<p>Final report will be published on website and social media</p> <p>Each partner should arrange to share the report within their own university and with stakeholders as per stakeholders' database</p>	SCiDEV and Uni Shkodra	<p>SCiDEV shares with partners final report</p> <p>University of Shkodra adds it on website and distributes on social media</p> <p>Each partner should arrange to share the report within their own university and with stakeholders as per stakeholders' database</p>	27.12.2023





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Students:

<https://forms.gle/Cbpy12VdG2vT5UTQ8>

Lecturers:

<https://forms.gle/bZbZz3hYiNwmBwar9>



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Digital literacies Needs assessment Survey





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Share questionnaires

Set dates for focus groups and inform SCiDEV/CCIS/UniShkodra





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Questions





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Final report for the pre-evaluation and need assessment of digital literacies

Deliverable 2.2 – task leader SCiDEV



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Students - Key Findings (I)



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- More than one-third of students show a lack of knowledge in **Spreadsheets** (35%), **Collaboration Platforms** (32%), **Presentation Software** (32%), Proficiency in **Word Processing** (31%), **using an operating system** (30%), **Website Creation** (50%), and in **Video Production** (36%).
- Males have a higher proficiency in overall Digital literacy knowledge compared to **females**. The same stands for students coming from urban areas (versus rural areas), and masters students (versus bachelor).
- Regarding the field of study, students of **Physical Education, Law, and Social Sciences** have the lowest level of knowledge in Digital Literacies. The opposite stands for Engineering and Computer Science students.
- Overall, students at the **University of Fan S. Noli of Korca** show a lower proficiency in Digital Literacies compared to other universities present in the study.





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Students - Key Findings (II)

- Students are most interested in improving **Digital Creation (16%)** and **Basic Computer Skills (15%)**.
- The preferred format of training is **Online Video Tutorials (48%)**, and **In-Person Workshops (37%)**. Findings from Focus Groups show that face-to-face training is preferred over online training, but they show a preference for Online Video Tutorials.
- The findings indicate that a **lack of awareness regarding accessible training opportunities** constitutes the primary obstacle hindering student participation in Digital Literacy Training.
- About **15%** of students would like training to be at the **expert level**, **32% Comprehensive**, **35% Intermediate level**, and **18%** just to have a **basic understanding**.
- About **45%** of students would prefer training to be **at least once a week**.



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Lecturers - Key Findings (I)



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- More than one-sixth of lecturers show a lack of knowledge in **Social Media Literacy** (17%), **Basic Photo Editing** (22%), **Cybersecurity Awareness** (26%), **Video Production** (37%), and **Website Creation** (52%).
- **Males** have a higher proficiency in Cybersecurity Awareness, Video Production, and Social Media Literacy, while **female** lecturers are better at Email, Video Conferencing, and Instant Messaging.
- Regarding the field of study, lecturers with expertise in **Physical Education, Humanities, Social Sciences, and Natural Sciences** have the lowest level of knowledge in Digital Literacies.
- **Experienced** lecturers demonstrate a lower proficiency in Digital Literacy.
- Overall, professors at the **University of Montenegro** show a lower proficiency in Digital Literacies compared to lecturers of other universities present in the study.



Lecturers - Key Findings (II)



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- About **37%** of lecturers have **participated** in training in the last years. Lecturers with **0-5 years**, of experience, and **11-20 years** of experience who have participated in Digital Literacy training demonstrate a higher level of overall digital literacy knowledge.
- **Generative AI Literacy** is the skill that lecturers are most interested in improving (34%), with the next **E-Learning Platforms** (18%).
- About 43% of professors want their training to be **on demand as needed**, 18% once a year, 38% once a semester, and only 1% once a month.
- More than **half** of lecturers (56%) mention the main barrier to attending Digital Literacy training the **Insufficient training opportunities**, while **30% lack time**.
- Lecturers are open to all kinds of Digital Literacy Training (52% prefer **Interactive Group Sessions**, 43% **Online Video Tutorials**, 42% **In-Person Workshops**, 41% **Live Online Classes/Courses**) – *multiple choice*.
- Digital tools are used **always** in teaching by **18%** of lecturers, **39% often**, 33% sometimes, and so on.
- **11%** of lecturers **never integrate** learning management systems in their courses, while 25% minimally, only for basic functions.
- Only **1%** of lecturers consider themselves an **expert** in the usage of AI and machine learning management, and only 12% as proficient.



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Lecturers - Key Findings (III)



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- Machine and learning machines are used **always** in research activities only by **2%** of lecturers, and often by **11%**, while **29% of them never have used them**.
- AI-based tools for personalizing learning or student engagement are used **frequently** by only **8%** of lecturers, while **54%** of them have **not used** them, but they are **interested** in learning more.
- In total, **27%** of lecturers are **very interested**, and **40%** are **interested** in incorporating AI/machine learning into their curriculum.
- Lecturers desire to have **access to AI software for classroom demonstration purposes (42%)**, **Training on implementing machine learning projects with students (42%)**, **Seminars on the ethical use of AI in education (40%)** to enhance teaching.
- The Preferred Resources and Training for Lecturers to Enhance Research are on specific **AI software tools (44%)**, **industry-specific AI applications** (e.g., legal tech, med tech, fintech) (**39%**), **Introductory workshops on AI and machine learning concepts (34%)**, etc.
- Focus Group - Both students and lecturers highlighted the positive and negative aspects of digital tools, emphasizing the importance of their judicious utilization. This collective awareness has led to a heightened interest among the majority of students and lecturers in pursuing further training.



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Stakeholders – Key Findings – Focus Group

- Significant discrepancy between digital skills learnt from university and the ones required in the professional realm.
- Lack of practical application and hands-on experience in current academic curricula
- Disparity in digital skills across different academic levels
- Lack of continued application leads to skills attrition over time.



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Conclusion and Recommendations

Students

- Formalization of Communication
- Enhancement of University Infrastructure
- Optimization of Online Library Access
- Adoption of modern teaching methods
- Strengthening of Digital Literacies Training
- 6. Curricular Adaptation for the Digital Future: Integrate digital tools into the curriculum to align educational programs with the demands of the evolving digital landscape.

Lecturers

- Improved technology infrastructure (More new computers, Improved network, Access to WIFI, etc.) Enhancement of University Infrastructure
- Access to Online Libraries
- Institutional strategic framework on digital literacies
- Curricula and trainings on digital literacies
- Standardized tools and platforms at the university level.
- Erasmus+ knowledge sharing.
- Ensuring a flexible legal framework.
- Privacy and Security Training



Conclusion and Recommendations

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Stakeholders

- Curriculum and Training

Enhance Curricula: Introduce digital-focused courses and certifications.

Ongoing Training: Offer extracurricular training tailored to practical needs.

- Mentorship & Professional Experience

Establish Mentorship Programs: Connect students with industry professionals.

Promote Internships: Encourage practical experiences through industry collaboration.

- Resource Access & Collaboration

Facilitate Resource Access: Provide industry-specific databases and tools.

Digitize Libraries: Expand digitization to university and school libraries.

- Communication Platforms

Develop Digital Platforms: Create real-time communication tools for university-business interaction.

Standardize & Address Web Challenges: Ensure user-friendly, responsive platforms.

- Innovative Initiatives

Explore Audiobooks: Implement audiobook programs for alternative learning.

Promote Podcasts: Encourage student expression through podcast initiatives.

- Continuous Engagement

Stakeholder Meetings: Regularly integrate stakeholder expertise into curricula.

Dynamic Program Review: Ensure programs are responsive and beneficial to students and community.





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Questions

