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List of acronyms

Acronym	Description
augMENTOR	Augmented Intelligence for Pedagogically Sustained Training and Education
LMS	Learning Management System
4Cs	Creativity, Critical thinking, Collaboration and Communication
AI	Artificial Intelligence
THM	TryHackMe

Executive summary

This deliverable (D6.2) reports the results of the cross-pilot evaluation of the augMENTOR solution, conducted under Task T6.6, and constitutes the final evidence base for assessing the applicability, acceptance, and pedagogical effectiveness of augMENTOR solution across heterogeneous educational and training contexts. Building on the Evaluation Framework and Demonstration Plan (D6.1), the deliverable consolidates findings from four pilots implemented in higher education, secondary education, adult learning, and vulnerable learner settings, using a human-centered and methodologically triangulated approach. The evaluation followed a mixed-methods design, integrating quantitative questionnaires, qualitative focus groups, weekly monitoring reports, and log files derived from Learning Management Systems (LMSs) and the augMENTOR platform. Data were collected across all stakeholder groups, learners, educators, pilot representatives, and institutional actors, ensuring triangulation and cross-pilot comparability. D6.2 provides strong empirical evidence that augMENTOR is applicable, acceptable, and pedagogically valuable across diverse educational ecosystems. The cross-pilot validation confirms that the solution can augment educational quality when embedded within well-designed courses, ethically grounded practices, and human-in-the-loop pedagogies. The findings also offer concrete, evidence-based recommendations for future technical and pedagogical refinement, supporting the sustainability, scalability, and responsible adoption of augMENTOR beyond the project's lifetime.

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1 Introduction

1.1 Structure of the document

The document is organised in six separate sections as follows: The methodological approach section delineates the overall research design, data collection instruments, implementation timeline, and the two-stage structure encompassing the pre-pilot and main pilot phases. The data analysis section subsequently details the analytical procedures applied to quantitative, qualitative, data, data from the Learning Management Systems (LMS), as well as the integration of findings within the cross-pilot validation framework of Task T6.6. This is followed by the pre-pilot phase section, which documents the foundational validation and preparatory processes conducted across the pilot sites. The pilot phase implementation section then presents the contextualised implementation of each pilot (IASIS, UPATRAS, EASD, and KTU). The evaluation results and key findings section reports and comparatively analyses evidence from both educators' and learners' perspectives across all pilots. Finally, the conclusions and recommendations section synthesises the principal evaluation insights and outlines implications for the future refinement, scalability, and broader deployment of the augMENTOR solution, supported by annexes and references.

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2 Methodological approach for pilot evaluation

2.1 Research design: Data collection, instruments and timeline

The implementation of the augMENTOR pilots was structured in two sequential and interrelated phases: a pre-pilot phase and a main pilot phase, in alignment with the project's overall strategy. The pre-pilot phase was beta testing of the strategy (as defined in Deliverable D2.1 - Activity 11 of the alignment strategy) and was designed to evaluate course functionality and readiness prior to full-scale implementation. During this phase, partner institutions designed, beta-tested their courses and pilot procedures, enabling them to refine learning activities, optimise course structures, while also exchanging experiential insights across the consortium. In parallel, empirical data generated during pre-pilot testing were systematically collected and utilised for training the machine learning models underpinning augMENTOR platform. Importantly, this phase also yielded critical input for the development of the augMENTOR demonstration plan and the refinement of the project's evaluation framework. Following the completion of the pre-pilot phase, the main pilot phase was implemented, focusing on full-scale deployment under authentic educational conditions.

The evaluation of both phases adopted a mixed-methods research design, integrating quantitative and qualitative data sources to ensure a comprehensive and triangulated assessment of pilot implementation, learning processes, and outcomes. Mixed-methods approaches are particularly well suited to complex educational and technological interventions, as they combine measurable indicators of participation, engagement, and performance with in-depth qualitative insights into participant experiences, contextual factors, and implementation dynamics (Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010). Within the augMENTOR project, this methodological framework enabled both outcome-oriented evaluation and process-oriented analysis across diverse institutional and disciplinary contexts, ensuring methodological rigor and comparability between the pre-pilot and pilot phases.

A total of 336 questionnaire responses were collected during the pilot phase (242 from educators and 94 from learners) (See Annex I & Annex II). Throughout the implementation period, continuous monitoring (D6.1, Section 3.6) and formative evaluation (D6.1, Section 4.2) were systematically embedded across all pilots, enabling ongoing observation of implementation progress and timely pedagogical or organisational adjustments in line with established evaluation principles. The questionnaires used in the evaluation of the augMENTOR pilots were structured quantitative self-report instruments designed to ensure cross-pilot comparability. They primarily employed 5-point Likert scales to capture participants' perceptions of the usefulness, reliability, acceptance, and pedagogical value of augMENTOR feedback, complemented by frequency scales measuring how often feedback and recommendations were consulted during the learning process. Quantitative

responses were analysed using descriptive statistical techniques and, where appropriate, aggregated into conceptual indices aligned with key project KPIs, without the application of advanced psychometric modelling or causal statistical inference.

Qualitative data were collected through:

(a) weekly monitoring diaries
(b) focus groups (educators and learners)
(c) LMS log files

The weekly diaries were implemented through regular bilateral meetings between pilot representatives and the Pilots' Leader (CSI) and were supported by structured note-taking procedures. Maintained from November 2024 to June 2025, the diaries systematically documented operational developments, emerging challenges, pedagogical adjustments, and contextual constraints over time, thereby complementing quantitative monitoring with longitudinal insights into how the pilots evolved in response to organisational and contextual conditions (Alaszewski, 2006).

Following the conclusion of the piloting phase, CSI organised focus groups with educators and learners to further strengthen the qualitative evidence base. Semi-structured interview protocols were designed to each group's role while maintaining a shared analytical focus across pilot sites. A common discussion guide was employed to support methodological consistency (Krueger & Casey, 2015).

In addition to self-reported qualitative data, log files and usage data were extracted from the LMSs and, where applicable, from the augMENTOR platform. These datasets included indicators of learner participation, engagement patterns, performance, and system usage by learners throughout the pilot phase. The integration of learning analytics and system-generated data provided an objective layer of evidence, strengthening the overall robustness of the evaluation through systematic data triangulation (Sharma, 2023).

2.2 Data Analysis

Data analysis followed an analytical strategy, in which quantitative, qualitative, and system-generated data were analysed separately and subsequently integrated to produce a coherent and validated interpretation of pilot implementation and outcomes. This approach aligns with established mixed-methods evaluation models, where different data strands are first examined using methods appropriate to their epistemological nature and then systematically compared to identify convergence, complementarity, or divergence of

findings (Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010). The analytical framework was explicitly aligned with the augMENTOR Evaluation Framework (D6.1), ensuring that all analyses were mapped to predefined evaluation objectives and Key Performance Indicators (KPIs), while remaining sensitive to contextual variations across pilot sites.

Quantitative Data Analysis: Quantitative questionnaire data from educators and learners were analysed using descriptive statistical techniques, including frequency distributions, percentages, and measures of central tendency. Quantitative results were interpreted cautiously, not as causal claims, but as indicators of trends and tendencies that required validation through qualitative and behavioural data.

Qualitative Data Analysis: Qualitative data were analysed using a thematic content analysis approach, combining inductive and deductive coding strategies. Initial deductive categories were derived from the evaluation framework and project objectives, while inductive coding allowed for the emergence of context-specific themes and unanticipated issues. Weekly diaries were analysed using content analysis and were cross-examined in conjunction with quantitative and qualitative data to support triangulation of findings.

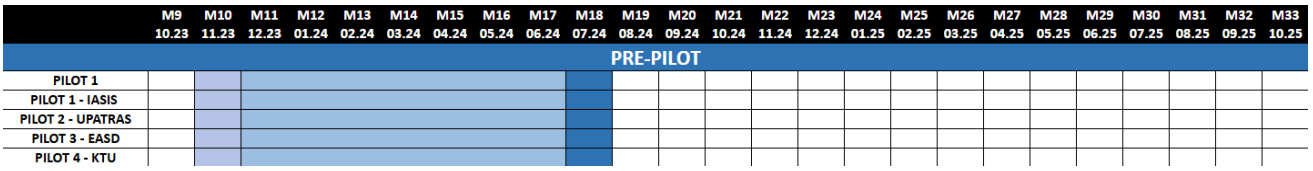
Integration and Validation of Findings: The final stage of analysis involved integrative synthesis under Task T6.6, where quantitative results, qualitative insights, and system data were combined to assess achievement of evaluation objectives and KPIs. Rather than forcing uniform conclusions, the analysis explicitly acknowledged contextual variability and differentiated between structural system-level findings and pilot-specific outcomes.

3 The Pre-Pilot Phase as a Foundational Validation Stage for augMENTOR

As outlined in Section 2.1, the project followed a two-stage implementation logic, comprising a pre-pilot phase (Figure 1) and a subsequent main pilot phase. The pre-pilot phase served as a targeted preparatory stage with a clearly defined strategic purpose: to validate course design and assessment structures in real institutional settings, to identify technical, pedagogical, and organisational constraints at an early stage, and to generate the conditions necessary for the effective deployment of the augMENTOR solution. By addressing issues related to LMS use (Moodle and TryHackMe), learner preparedness, and educator workload in advance, the project ensured that the main pilot phase could prioritise AI-enhanced feedback, learning analytics, and recommendation mechanisms, rather than compensating for unresolved structural or design limitations.

Within this framework, the pre-pilot phase operated as a structured process of pedagogical, technical, and ethical alignment across all partner sites. Partners finalised course outlines and draft descriptions, progressed through defined design stages, and embedded creativity strategies alongside the validated 4Cs assessment rubrics. At the same time, LMS infrastructures were confirmed and tested, including full access to log data required for systematic analysis, while pilot debriefs, template reviews, and documentation test runs ensured consistency and data readiness. Parallel procedures addressed data protection and ethics compliance through DPO or Ethics Committee engagement, consent form updates, ROPA alignment, and research protocol approvals, complemented by preparatory training for educators where required.

Figure 1. Pre-Pilot Timeline



3.1 Pre-Pilot #1 - Emerging technologies in Adult Education and Life-Long Learning settings (IASIS):

The IASIS pre-pilot played a substantive enabling role in the subsequent piloting phase with augMENTOR by strengthening both the pedagogical design and the organisational readiness of the intervention. Implemented within IASIS's established mental health and psychosocial support ecosystem, the pre-pilot engaged approximately **65 learners** and **10 educators** and operated as a controlled simulation of the larger pilot. This smaller-scale implementation allowed IASIS to refine its capacity to coordinate and manage parallel groups of educators and learners, improving time and space allocation, workload distribution, and mentoring processes.

At the instructional level, the pre-pilot informed targeted refinements to the Moodle environment and course activities. Forum spaces were fully redesigned to better support interaction and guidance, while learning materials and exercises were adjusted to be more focused and clearly structured, without removing core content. The thematic architecture of the course, covering communication skills, time management, problem-solving, and diversity and inclusion, remained intact, ensuring conceptual continuity while improving accessibility and clarity for heterogeneous learner profiles. Importantly, the pre-pilot also

revealed challenges related to learner drop-outs, leading to the development of an internal monitoring and response plan before the launch of the main pilot.

This preparedness allowed the piloting phase to focus on the added value of augMENTOR's feedback and recommendations, rather than addressing foundational design or organisational issues, thereby enhancing both the effectiveness and interpretability of the AI-supported intervention.

3.2 Pilot #2 - Innovative Training Programmes for Pre-service Teachers (UPATRAS)

At UPATRAS, the pre-pilot involved **203 undergraduate student participants** and **4 educators** and was embedded in the mandatory undergraduate course *Information and Communication Technologies in Education* within the Department of Educational Sciences and Early Childhood Education, implemented during the regular semester preceding the main pilot. The primary focus of this phase was to examine whether course content, learning activities, 4Cs-aligned assessment elements, and learning analytics data were coherently designed and technically connected within the LMS, so that meaningful and analysable data could be generated for augMENTOR.

During the pre-pilot, the consistency and sequencing of learning materials, the integration of formative and SCORM-based activities, and the operationalisation of the 4Cs framework were tested under real teaching conditions. At the same time, the availability, quality, and traceability of learner interaction data were monitored to ensure that analytics could be reliably captured and linked across activities. This process confirmed that the pedagogical design and technical infrastructure were capable of producing structured data suitable for AI-driven analysis, while also revealing early organisational and technical challenges related to large-scale onboarding and platform navigation, which were addressed through targeted guidance and support.

By resolving these issues in advance and validating the alignment between content, activities, 4Cs indicators, and learning analytics data, the pre-pilot established the necessary foundations for the main augMENTOR piloting phase.

3.3 Pre-Pilot #3 - STEAM-based Programs for Environmental Education in a Network of Eco-schools (EASD)

At EASD, the pre-pilot involved **77 learners, 38 teachers,** and participation from 23 Eco-Schools, and was implemented across geographically distributed primary education settings in Serbia. This phase served as a critical diagnostic stage for assessing the suitability

of the course design for primary-level learners and for examining whether the content, activities, and learning pathways were appropriately aligned with students' cognitive and literacy levels.

Feedback collected during the pre-pilot indicated that a majority of students experienced the course as overly complex and difficult to follow, while teachers highlighted the need for substantial adaptation to match primary education requirements. These findings directly informed targeted revisions to the course structure, language, and activity design prior to the pilot phase. As a result, the learning materials were reshaped to improve clarity, accessibility, and age-appropriateness, ensuring that the pilot phase could focus on effective learning engagement and on the generation of meaningful data for augMENTOR's feedback and recommendation mechanisms, rather than on fundamental issues of content suitability.

3.4 Pre-Pilot #4 - Leapfrogging Industry 4.0 technologies for Civic Society watchdogs and EU Civilian Missions (ACP/KTU)

For pilot #4, the pre-pilot phase began with **357 learners** registered out of which 20[1] participants were selected to participate. Out of these 20 participants **18** completed the learning course. This high completion rate initially suggested that the overall approach content selection, progression design, and learner support was functioning effectively. Furthermore, in terms of course design, the ACP/KTU team decided to only use rubrics for two out of the four skills; creativity and critical thinking as communication and collaboration skills were not a main focus given the nature of their course, which aimed at learners that mostly work at their own pace and choose their learning path (self-regulated learning).

During the pre-pilot however, some limitations emerged within THM, including unreliable peer-to-peer communication, redirection errors that diverted learners away from the intended learning path, and increasing instability in API-based data access, undermining the reliability of learning analytics intended for augMENTOR. However, despite these problems, KTU gathered valuable information during the pre-pilot stage. The learning content itself proved suitable for non-IT users once accessed;

[1] It should be noted that the TryHackMe platform was selected as pilot #4 required the use of virtual machines which were available with THM. KTU purchased 80 Education Plan licenses with API access in total for TryHackMe. Each license (token) provides one learner with access to TryHackMe and the KTU-developed course for one month. To complete the full course, a learner typically needs two months of access. Which means that KTU could involve up to 40 learners in total in order to allow learners to complete the whole course. Out of these licences, 20 were made available for the pre-pilot and another 20 for the pilot.

4 Pilot Phase Implementation under Authentic Educational Conditions

As mentioned above, the pre-pilot phase served as a necessary validation step to ensure that the augMENTOR solution was pedagogically, technically, and contextually ready for full-scale implementation. The pre-piloting process enabled the early identification of gaps in pedagogical design, data availability, and contextual alignment across pilot sites. During this phase, targeted adaptations were implemented to support effective deployment in different contexts. For example, in the EASD pilot, limited English proficiency among participants necessitated the translation of the augMENTOR interface, as well as its feedback and recommendation outputs, into Serbian in order to ensure accessibility and valid data generation. In parallel, the introduction of the Notes feature enabled educators to document contextual information that could not be captured through LMS analytics alone. Together, these refinements improved the alignment between course design, data generation, and AI-supported analysis, thereby strengthening the reliability, interpretability, and educational relevance of augMENTOR outputs during the main pilot phase.

4.1 Pilot 1# IASIS - Context and Implementation

The pilot phase at IASIS was implemented over an extended period from December 2024 to May 2025 and involved approximately **240 learners** and **15 educators** who actively engaged with the learning activities and the augMENTOR-supported environment throughout the implementation period. Participants were recruited through a targeted process that leveraged IASIS's established mental health and psychosocial support networks, engaging mental health professionals, educators, students, and volunteers working within IASIS mental health units. Selection focused primarily on professionals already embedded in IASIS services, including mental health practitioners and educators, thereby ensuring strong domain relevance, contextual alignment, and practical expertise.

In addition to the main pilot activities with adult learners, a complementary pilot activity (Kids Edition) was implemented with a small group of **six** children aged **10–14 years** in an inclusive classroom setting. This group included learners with autism, learning disabilities, and intellectual disabilities and was facilitated by a qualified Speech Therapist with extensive experience in supporting young people with mental health challenges. The activity was delivered in collaboration with IASIS-affiliated youth support structures, utilising Youth Center facilities and engaging beneficiaries already supported by the organisation, thus ensuring a familiar and supportive learning environment.

Across both the main and additional pilot groups, educators and learners interacted with the augMENTOR-supported learning environment throughout the piloting phase,

generating quantitative and qualitative data that inform the evaluation. The findings derived from these interactions and their implications for teaching practices, learning processes, and inclusive educational design are presented in the following section.

4.2 Pilot 2# UPATRAS - Context and Implementation

At UPATRAS, participant recruitment for the pilot was fully embedded within the formal academic structure of the undergraduate programme and took place automatically through course enrolment at the beginning of the Spring 2025 semester. As the pilot was integrated into a compulsory course, no additional recruitment procedures were required. Students were informed about the pilot through in-class announcements, Moodle notifications, and direct communication from course instructors.

The pilot was implemented over an 11-week period (February–May 2025) following a structured, semester-based hybrid delivery model that has been consistently applied in the course for more than a decade. Weekly modules were delivered through the Moodle LMS and combined approximately two-hour online and face-to-face sessions with a sequence of interconnected learning activities designed to support progressive skill development and sustained engagement.

The participant group comprised **4** educators and a large undergraduate student population of **221 learners**, predominantly first- and second-year students aged 18–22, with academic backgrounds in education, pedagogy, and introductory ICT-in-education subjects.

The organisational process was supported through continuous coordination between course instructors and the UPATRAS piloting team. Communication with students was maintained via Moodle announcements and email, while weekly activities were carefully scheduled and aligned with the approved course syllabus. Learning materials were prepared in advance and delivered primarily through SCORM-based modules, ensuring consistency, reusability, and structured learner progression. All assignments and learning activities were explicitly mapped to course learning outcomes, enabling augMENTOR to operate as an integrated pedagogical component embedded within the instructional design, rather than as an external or supplementary tool.

4.3 Pilot 3# EASD - Context and Implementation

The EASD *Carbon Footprint* course was launched in October 2024 and concluded in early June 2025, involving **28 educators,** each responsible for a designated student group. Prior to the start of the course, informed consent procedures were fully implemented in

accordance with ethical standards and data protection requirements. Consent forms for teachers, students, and parents or legal guardians were distributed through the participating educators within their respective school networks. In total, **130 students** were enrolled in the course, with an additional group of **10 students** with learning and developmental disabilities participating through inclusive educational settings, including learners with specific learning difficulties (particularly in reading and written expression), attention-related difficulties, mild intellectual disabilities, and autism spectrum conditions.

At the end of November and beginning of December 2024, the implementation of the *Carbon Footprint* course was affected by widespread university student protests across Serbia, which rapidly extended beyond higher education to involve secondary school students and teachers from both primary and secondary education. This escalation resulted in significant disruption to the functioning of educational institutions nationwide, with a large number of schools, including several Eco-Schools participating in the project, either fully blocked or experiencing prolonged interruptions to regular teaching activities.

These developments culminated on 20 December 2024, when the first semester was unexpectedly concluded nationwide across all primary and secondary schools. As a direct consequence, several participating Eco-Schools were unable to finalise the *Carbon Footprint* course activities planned for that period. Although the regular winter holiday commenced in January 2025, the subsequent trimester did not resume as scheduled and was postponed until March/April 2025. During this interim phase, schools were either fully closed or operating under reduced instructional conditions, including shortened class durations (approximately 30 minutes instead of the standard 45 minutes). Also, a number of Eco-Schools entered official strike status, functioning under minimum operational requirements, in some cases without student attendance.

This sociopolitical situation was corroborated by the 2025 European Commission Report on Serbia, which highlights that "*the delivery of quality education was impacted by the discontinuity of education throughout the 2024/2025 school year, measures worsening the working conditions of teaching staff and dismissals and non-renewals of contracts of a high number of teaching staff and principals at the start of the new school year*" (European Commission, 2025). The broader socio-political context remained dynamic throughout the reporting period and continued to exert pressure on the education sector. This was further emphasised in the Joint Motion for a Resolution of the European Parliament on the polarisation and increased repression in Serbia, adopted one year after the Novi Sad tragedy, which "*strongly condemns the government's retaliation against employees in the education and cultural sectors for supporting the protests, including job losses, salary*

reductions, the presence of police on university campuses and the withdrawal of funding for public universities" (European Parliament, 2025).

Between December 2024 and March 2025, more than 50% of schools in Serbia experienced interruptions or discontinuity in educational activities, directly affecting the implementation of the project pilot. Several participating Eco-Schools were unable to continue or complete the *Carbon Footprint* course activities during this period. While some schools resumed limited operations earlier, regular instructional activities were gradually restored only in the second half of March 2025, particularly at the primary education level, enabling partial re-engagement with the course. Throughout this period, EASD worked in close coordination with the WP6 Leader (CSI), holding weekly bilateral meetings to assess emerging constraints, adjust implementation strategies, and identify feasible pathways to ensure successful completion of the pilot. Given the national context, it was neither feasible nor appropriate to enforce participation or adhere to the originally planned course timeline. As a result, only Eco-Schools that continued operating under relatively stable conditions were able to follow the initial project schedule.

For Eco-Schools that resumed activities at a later stage, adaptive mitigation measures were jointly agreed and implemented. These included accelerating the course pace, increasing the volume of student homework in place of classroom-based activities, scheduling more frequent project sessions (e.g. twice per week instead of once), and making targeted use of the augMENTOR platform to support learning continuity and task completion. Participating Eco-Schools adopted these measures and successfully finalised the planned course activities, with the *Carbon Footprint* course concluding in early June 2025.

4.4 Pilot 4# KTU - Context and Implementation

Shortly before the launch of the main pilot phase, THM implemented a radical update of its LMS. This update introduced a mandatory questionnaire to users upon registration which after its completion, instead of allowing learners to freely navigate and make their tailored path based on the content created by KTU, it automatically redirected them to the platform's default learning recommendations, which consisted largely of advanced cybersecurity rooms designed for IT students or professionals. This meant that users lost access to the intended learning paths entirely and were left inside unrelated THM rooms, many of which were too advanced or irrelevant.

This fundamental change could not have been foreseen by the project team nor was there a way to bypass these changes in THM. However, to avoid having all the registered learners quit the course the team made the strategic decision to migrate the course in Moodle and allow learners to run their course in Moodle. At the time, however, the technical team could

not design a new ontology for Pilot #4. Thus, given the different structure of the KTU course compared to the other pilots' courses, these Moodle-based learner data could not be technically integrated into the augMENTOR platform promptly for the pilot implementation.

Following the completion of the urgent migration from the THM platform to Moodle, the KTU pilot entered its main pilot phase on 1 October 2024. This transition marked a critical shift from reliance on a commercially governed third-party platform to a fully institutionally controlled learning environment, ensuring pedagogical stability, compliance with data-governance requirements, and continuity of implementation. Interest in pilot #4 remained strong, with **179 individuals** registering to participate, reflecting sustained demand for cybersecurity and digital resilience training among the target audience. From this pool, **42 participants** were selected to complete the primary learning pathway delivered through Moodle, based on predefined eligibility and capacity criteria. In parallel, and in order to avoid the loss of previously purchased THM access tokens and the testing of the augMENTOR platform alongside THM, **16 learners who explicitly requested continued** use of **THM** were granted limited access to the remaining THM rooms.

A further structural challenge emerged in April 2025, when THM announced substantial changes to its pricing and subscription model. The revised policy introduced significantly increased licence costs and a minimum purchase threshold that exceeded the project's operational needs. At that stage, KTU required only four additional licences to fulfil the KPI requirements for a pilot cycle; however, the new pricing structure would have necessitated the acquisition of a disproportionately large licence package, rendering the purchase financially unjustifiable and incompatible with the principles of proportionality and cost-effectiveness governing EU-funded projects.

In response to these constraints, and following internal consultations, the consortium agreed to propose a formal adaptation to the Project Officer. Rather than implementing a second pilot in the strict technical sense, the remaining learner engagement was redirected towards a Policy Event in Lithuania, organised within the same reporting period. This adaptation allowed KTU to maintain engagement with the target audience, contribute to the project's broader objectives related to cyber-awareness and digital resilience, and ensure meaningful stakeholder involvement, while avoiding additional licensing costs and further technical integration risks.

An additional welcome outcome of this policy event was that several participants expressed a high interest in the augMENTOR platform. Thus following this event, to leverage this interest and to introduce the platform to the interested participants, the project team decided to run an additional pilot engaging users as educators this time. To implement this additional pilot, the team created a demo course in Moodle following the format of the

other three pilot courses (and consequently the existing ontology available) using synthetic data to simulate learners and enable pilot users to test the platform acting as educators and making queries for these 'synthetic learners'. For further support, an online educator-focused training workshop event was organised. This event provided an opportunity to participants to familiarize themselves with the platform. Following the training, participants were able to explore the platform and its functionalities, and offer informed reflections on its usability, relevance, and pedagogical value. The training workshop included a live demonstration of how augMENTOR works and how it analyses Moodle-based course data to generate actionable insights and personalised recommendations for instructional design and learner support. In total, **37** participants registered for the event, with **10 attending** the live online presentation. This relatively low attendance was however expected given the short notice and the near holidays timing. Nonetheless, this additional pilot provided added participant interaction, including questions and feedback, generated qualitative insights relevant to user acceptance and system understanding. This activity complemented the piloting phase by enabling additional educator interaction with the augMENTOR platform, thereby strengthening the evidence base on user acceptance and system readiness.

5 Evaluation Results of the augMENTOR Pilots: Cross-Pilot Evidence and Key Findings

This section presents the evaluation results of the augMENTOR pilots through a systematic and analytically grounded synthesis of quantitative, qualitative, and system-generated data. The analysis draws on questionnaire responses from educators and learners, qualitative evidence from focus groups and weekly monitoring diaries, and learning analytics extracted from the LMS and the augMENTOR platform, enabling a multi-layered examination of implementation processes and outcomes.

5.1 Perceived Functional Usefulness of augMENTOR Feedback and Recommendations

Quantitative findings indicate that 73.1% of respondents (N ≈ 177) rated the feedback and recommendation mechanisms of the augMENTOR platform as useful or very useful in supporting their teaching or learning processes, suggesting that the system largely fulfilled its primary functional objective of transforming LMS-derived data into pedagogically actionable information. Qualitative evidence provides important analytical depth by illuminating how this perceived usefulness was enacted in practice. Educators consistently characterised augMENTOR as reducing the cognitive load associated with monitoring learner activity across multiple LMS components. As one participant observed, ***"All the***

information was already there, but augMENTOR helped me see it in one place and understand what actually mattered." In this sense, augMENTOR was not valued for generating entirely new insights, but for structuring dispersed data into coherent and interpretable patterns, thereby enabling pedagogical sense-making rather than manual data aggregation.

A recurrent theme in the qualitative data concerned the role of predefined queries and indicators as key affordances supporting this process. Educators emphasised that these structures helped direct attention and mitigate the risk of being overwhelmed by raw analytics. As one educator explained, ***"Without the indicators, you just see numbers and clicks; with augMENTOR, you see a story about participation and progress."*** This account illustrates that perceived usefulness was closely linked to augMENTOR's capacity to mediate between quantitative traces and pedagogical interpretation. Importantly, educators did not associate usefulness with automation or technological novelty per se. Instead, they stressed that augMENTOR became pedagogically meaningful when its feedback logic aligned with their instructional intentions and course design. As one participant reflected, ***"It worked well because it followed the logic of my course. It didn't feel external to what I was doing."*** Conversely, in contexts where such alignment was weaker, educators reported more limited uptake, noting that the feedback appeared less immediately applicable.

5.2 Accuracy, Reliability, and the Emergence of Trust in AI-Generated Feedback

Across the full dataset, 71.5% of respondents (N ≈ 173) agreed or strongly agreed that augMENTOR feedback was accurate and representative of learner performance, while only 14.9% (N ≈ 36) reported instances in which the feedback did not align with their own expectations or observations. These findings indicate a generally high level of perceived reliability and suggest that, for the majority of users, augMENTOR outputs were broadly consistent with observable learning behaviours and outcomes. Importantly, however, qualitative evidence demonstrates that this perception of reliability was not the result of immediate or uncritical acceptance of AI-generated feedback, but rather emerged through a gradual process of trust formation grounded in educators' professional judgement.

Educators consistently described engaging in iterative validation practices, whereby augMENTOR feedback was systematically compared with their own qualitative assessments, informal monitoring records, and experiential knowledge of learners. As one participant explained, ***"At first, I checked everything it suggested against what I had seen myself. When I realised it was usually pointing to the same issues, I started trusting it more."*** When augMENTOR feedback converged with educators' observations, confidence in the

system increased progressively. When discrepancies were identified, educators did not automatically defer to the system; instead, they treated these divergences as prompts for further reflection, thereby maintaining evaluative autonomy. This pattern indicates that trust was constructed through an ongoing dialogue between human and algorithmic judgement, rather than through reliance on the system in isolation.

A particularly salient qualitative finding concerns augMENTOR's explicit handling of situations characterised by insufficient or fragmented data. Educators repeatedly emphasised that the system refrained from generating feedback when minimum data thresholds were not met. As one educator noted, ***"I appreciated that it didn't try to give feedback when there wasn't enough information. It was honest about its limits."*** This deliberate avoidance of speculative or generic output was consistently interpreted as evidence of epistemic integrity and transparency. Analytically, such behaviour played a central role in trust formation by establishing clear and predictable boundaries regarding what the system could and could not infer. Rather than undermining confidence, these constraints reinforced perceptions of reliability by signalling that augMENTOR did not overextend its analytic scope. Trust in the system therefore did not stem from perceptions of technological sophistication, but from its consistent, transparent, and bounded operation, which aligned closely with educators' own evaluative reasoning. In this sense, augMENTOR was positioned as a dependable analytic support that augments professional judgement, rather than as an authoritative or substitutive decision-making entity.

5.3 augMENTOR as an Extension of Educator Judgement

Quantitative findings indicate that 69.0% of educators (N ≈ 167) reported that the augMENTOR solution supported their teaching role without diminishing professional autonomy. This outcome directly aligns with the KPI on self-reported teacher adoption and suggests a balanced integration of technological support and human agency. For the majority of educators, augMENTOR was therefore not perceived as a controlling or directive system, but as one that respected and preserved the centrality of professional judgement within teaching practice.

Qualitative evidence provides a more nuanced account of how this balance was enacted in practice. Educators consistently characterised augMENTOR as an augmentative resource rather than a decision-making authority. A recurring emphasis was placed on the capacity to review, adapt, contextualise, or deliberately disregard AI-generated recommendations prior to sharing them with learners. As one educator noted, ***"I always had the final say. I could adapt the feedback or even ignore it if I felt it didn't fit the situation."*** This flexibility was described as essential for maintaining professional accountability and ensuring that feedback remained pedagogically and contextually appropriate. The absence of prescriptive or compulsory actions further reinforced

educators' perception that augMENTOR operated in support of, rather than in competition with, their professional expertise.

From an analytical perspective, augMENTOR functioned as a reflective mirror that enabled educators to juxtapose algorithmically identified patterns with their own interpretations of learner behaviour and performance. In several instances, educators reported that the system brought to the surface trends, such as uneven engagement or emerging learning difficulties, that they had intuitively perceived but had not explicitly articulated. As one participant reflected, ***"It helped me put into words what I was already noticing, but hadn't clearly defined."*** Importantly, this reflective affordance did not undermine professional confidence; rather, it reinforced educators' sense of agency by expanding their analytical horizon and supporting more deliberate and evidence-informed pedagogical reasoning. Taken together, these findings indicate that augMENTOR's contribution to teaching practice lies not in substituting professional judgement, but in enhancing educators' capacity to reflect on, confirm, and refine their own evaluative decisions.

5.4 Workload Redistribution and Perceived Efficiency Gains

Quantitative findings indicate that 66.5% of educators (N ≈ 161) reported that the use of augMENTOR reduced the effort required to provide feedback, while 61.2% (N ≈ 148) stated that the solution enabled them to support a larger number of learners simultaneously. These results directly address the KPI related to feedback scalability, suggesting that augMENTOR effectively expanded educators' capacity to deliver individualised feedback without proportionally increasing workload.

The qualitative data offer a more refined interpretation of these efficiency gains. Educators consistently rejected the notion that augMENTOR simply ***"saved time"*** in a mechanical sense. Instead, they described a redistribution of cognitive and temporal resources, whereby routine and repetitive aspects of feedback production were reduced, allowing greater attention to be devoted to pedagogical reasoning, interpretation of learner needs, and instructional planning. As one educator explained, ***"I didn't just finish faster; I had more mental space to think about what the feedback actually meant for each learner."*** This distinction is analytically important, as it suggests that efficiency was experienced as an enhancement of pedagogical quality rather than as a shortcut.

The emotional dimension of this redistribution was particularly prominent in the qualitative accounts. Educators frequently characterised the experience using affective terms such as *"relieving," "supportive,"* or *"less overwhelming."* One educator noted that ***"it felt like some of the pressure was taken off, especially when I had many students to follow."*** From an analytical perspective, this affective response indicates that perceived efficiency gains were closely intertwined with educators' experiences of workload intensity and professional strain. augMENTOR was therefore evaluated not merely as a technical tool that optimises

processes, but as a mechanism that ameliorates structural pressures inherent in contemporary teaching environments, contributing to perceptions of professional sustainability alongside operational efficiency.

5.5 Visibility of Learning Processes Through Analytics

One of the most consistently reported benefits of the augMENTOR solution concerned its contribution to making learning processes more visible to educators. According to the quantitative data, 68.2% of respondents (N ≈ 165) indicated that the analytics generated by augMENTOR were useful in identifying patterns related to learner engagement, participation, and performance. This finding points to the system's capacity to surface aspects of learning activity that are often opaque in online and blended settings, where educators have limited opportunities for continuous, direct observation.

Qualitative accounts, however, demonstrate that educators did not interpret these analytics as definitive representations of learning. Instead, analytics were primarily understood as signals that warranted further pedagogical attention. Indicators such as frequency of access, time spent on tasks, or interaction levels were described as helpful starting points, but insufficient when considered in isolation. As one educator observed, ***"The numbers show me where something might be happening, but they don't explain why."*** This highlights a critical distinction between visibility and interpretation: while augMENTOR increased awareness of learner activity, meaning was constructed through educators' contextual knowledge and professional judgement.

By drawing attention to potential areas of concern, such as reduced engagement or uneven participation, the system supported educators in prioritising their interpretive efforts. Another participant noted that ***"it helped me focus on the students or activities that needed closer attention, instead of guessing."***

5.6 Personalisation of Feedback: Extent and Limitations

Perceptions of personalisation constituted one of the most nuanced findings of the evaluation. Quantitative results show that 64.0% of respondents (N ≈ 155) agreed that the recommendations generated by augMENTOR were personalised to learners' needs. While this proportion indicates that a clear majority experienced the feedback as individually relevant, it is notably lower than the corresponding ratings for overall usefulness. This divergence suggests that personalisation was not rejected, but rather evaluated with greater scrutiny, reflecting educators' more demanding expectations regarding what personalised feedback should entail.

The qualitative data provide a detailed explanation for this ambivalence. Educators consistently acknowledged that augMENTOR recommendations were targeted at

meaningful learning dimensions, such as levels of participation, engagement with activities, or indicators related to creativity and effort. In this sense, feedback was perceived as personalised at the level of *focus*, that is, it addressed aspects of learner behaviour that were pedagogically relevant and differentiated across students. As one educator remarked, ***"It was clear that the feedback was based on what each student was actually doing, not something generic."*** This recognition supports the quantitative finding that a majority of respondents perceived a degree of personalisation.

At the same time, educators observed structural similarities in the wording and format of recommendations, particularly when working with larger cohorts. Several participants noted that, although the focal points of feedback differed across learners, the underlying structure of messages remained relatively stable. This led educators to engage in reflective questioning about the nature of personalisation in AI-supported systems. One educator articulated this tension by noting, ***"It was personalised in terms of what it talked about, but not always in how it talked about it."*** Such comments reveal that educators distinguished between *functional personalisation* (based on indicators and behavioural patterns) and *narrative personalisation* (based on richer contextual or qualitative differentiation).

Importantly, educators did not frame these limitations as a failure of the augMENTOR solution. Instead, they described personalisation as functionally adequate yet conceptually bounded by the type and granularity of available data. augMENTOR was perceived as delivering indicator-based personalisation that reliably reflected learner activity, while deeper contextual or narrative adaptation remained beyond its current analytic scope. From an analytical perspective, these findings suggest that educators evaluated personalisation along a continuum rather than as a binary attribute.

5.7 Contribution to the Development of the 4Cs

The contribution of the augMENTOR solution to the development of transversal competencies associated with the 4Cs emerged as a measured and analytically nuanced outcome. Quantitative findings indicate that approximately 61% of respondents (N ≈ 148) agreed that augMENTOR feedback helped make skills related to critical thinking, communication, collaboration, and creativity more visible. This moderate-to-high level of agreement reflects both the system's capacity to surface such competencies and the inherent methodological difficulty of capturing complex transversal competencies such as the 4Cs.

Qualitative evidence clarifies that augMENTOR's contribution was experienced primarily at the level of articulation and visibility, rather than as a mechanism of direct skill development. Educators consistently reported that the structured feedback provided by augMENTOR enabled them to *name*, *describe*, and *discuss* aspects of learner performance that would otherwise remain implicit. Skills such as creativity and critical thinking, frequently

described as ***"hard to pin down" or "difficult to justify in assessment",*** became more accessible when linked to observable indicators embedded in learning activities. As one educator noted, ***"Creativity was always there, but augMENTOR helped me explain it in concrete terms, not just as a feeling."*** This suggests that augMENTOR functioned as a mediating tool that translated abstract competencies into pedagogically communicable constructs.

Importantly, educators emphasised that this visibility was highly dependent on pedagogical design. Where activities were intentionally structured to elicit the 4Cs, such as open-ended tasks, collaborative work, or reflective assignments, augMENTOR feedback reinforced and supported educators' evaluative practices. Conversely, in contexts where activities were more procedural or content-driven, the system had limited capacity to surface transversal skills. One participant explained that ***"if the activity doesn't allow for critical thinking or collaboration, the system can't magically detect it."*** This highlights that augMENTOR's contribution to the 4Cs is relational, emerging through alignment with instructional intent rather than through analytics alone.

Timing emerged as a critical constraint shaping observable impact. Educators consistently reported that in pilots where augMENTOR was introduced later in the course lifecycle, feedback could only operate in a summative capacity, limiting opportunities for learners to reflect on and develop these competencies during the learning process. As one educator reflected, ***"By the time we saw the feedback, the course was almost over. It helped with reflection, but not with improvement."*** Analytically, this finding indicates that augMENTOR's potential contribution to the 4Cs is conditional on early and sustained integration, allowing feedback to function formatively and inform instructional adjustments in real time.

The specific results suggest that augMENTOR does not directly develop the 4Cs, but rather supports their pedagogical visibility and evaluative legitimacy. Its effectiveness in this domain depends less on analytic sophistication and more on temporal integration and pedagogical alignment, reinforcing the interpretation that transversal skill development remains fundamentally grounded in instructional design and educator mediation, with augMENTOR serving as an enabling, rather than determining, infrastructure.

5.8 Learner Engagement with Feedback and Communication Dynamics

Learner engagement with augMENTOR-generated feedback emerged as a comparatively constrained outcome of the pilot implementations. According to educators' reports, approximately 52.1% of learners (N ≈ 126) actively engaged with, responded to, or demonstrably acted upon the feedback provided through augMENTOR. This proportion is notably lower than the corresponding indicators of educator satisfaction and perceived usefulness, pointing to a structural gap between the provision of feedback and its uptake by learners.

The qualitative data offer a detailed explanation of this pattern by situating learner engagement within established assessment and communication cultures. In higher education contexts, educators consistently observed that learners tended to prioritise grades and summative outcomes, often engaging with qualitative feedback only insofar as it was perceived to have direct implications for assessment results. As one educator noted, ***"They looked at the feedback when it affected their grade; otherwise, many just skimmed it."*** In such contexts, augMENTOR feedback was not rejected, but rather filtered through an instrumental logic that already characterises learner–feedback interactions.

In inclusive and school-based settings, learner engagement followed a different dynamic. Here, educators frequently assumed the role of mediators or interpreters of augMENTOR feedback, particularly for younger learners or those with learning difficulties. Educators reported reading, explaining, or contextualising feedback during classroom interactions, effectively embedding augMENTOR outputs into face-to-face pedagogical exchanges. One participant explained that ***"the feedback worked, but only when we discussed it together; on its own, it wasn't enough."*** This highlights that engagement was often indirect and relational, rather than autonomous.

These findings indicate that learner engagement with augMENTOR feedback cannot be understood as a property of the system alone. Rather, it is co-produced through institutional norms, assessment practices, and communicative routines that shape how learners perceive and use feedback. augMENTOR's influence on learner behaviour is therefore contingent on how feedback is pedagogically framed, discussed, and valorised within specific educational contexts.

5.9 Accessibility and Inclusion Constraints

In inclusive pilot contexts, educators reported that the augMENTOR solution supported their capacity to monitor learning progress and provide structured guidance to learners with disabilities, contributing positively to the project's KPI related to inclusion. Educators highlighted that the system's analytics and feedback mechanisms enabled clearer identification of engagement patterns and learning needs among learners who often require additional support. In this respect, augMENTOR was perceived as strengthening educators' ability to manage inclusive learning environments by offering structured insights that complemented their professional judgement.

At the same time, qualitative analysis revealed a critical accessibility constraint related to the modality of feedback delivery. Educators consistently reported that the text-based nature of augMENTOR recommendations limited their direct accessibility for learners with reading difficulties, learning disabilities, or cognitive impairments. As one educator explained, ***"The feedback itself was useful, but many of my students couldn't read it independently, so I had to go through it with them."*** This necessitated active mediation by

educators, who often read, explained, or rephrased feedback during face-to-face interactions. Importantly, this constraint did not lead educators to reject augMENTOR; rather, it highlighted a gap between the system's analytic capacity and learners' varied accessibility needs.

While augMENTOR succeeded in generating meaningful insights for educators, its reliance on text-based outputs limited the extent to which these insights could be autonomously accessed by all learners. Educators explicitly articulated the need for alternative or complementary modalities, such as audio or multimodal feedback, to ensure equitable participation.

5.10 Educator Notes as a Human Interpretive Layer

Finally, the ***Notes*** function within the augMENTOR environment emerged as a pedagogically meaningful feature that enabled educators to embed contextual and experiential knowledge alongside AI-generated analytics. Qualitative evidence indicates that educators used the *Notes* to capture observations that could not be inferred from LMS data alone, such as learners' emotional states, participation dynamics in face-to-face sessions, or contextual factors influencing performance. As one educator explained, ***"The analytics show me what is happening online, but the Notes are where I write what I actually see in the classroom."*** This highlights the role of the Notes as a complementary layer that extends beyond automated indicators and preserves the situated nature of teaching and learning.

Educators reported using Notes to confirm, nuance, or qualify augMENTOR recommendations, particularly in cases where analytics provided partial or ambiguous signals. One participant noted, ***"Sometimes the system flags low engagement, but in my Notes I explain why maybe the student was present but not active online."*** This practice illustrates how Notes operated as a space for interpretive mediation, allowing educators to contextualise data-driven insights rather than accept them at face value.

Importantly, educators also described the Notes as supporting reflective continuity over time, enabling them to document evolving learner trajectories and pedagogical decisions across sessions. As one educator stated, ***"The Notes help me remember why I made certain decisions. They keep the human story next to the data."*** Rather than competing with augMENTOR feedback, the Notes were perceived as grounding analytic outputs in lived educational experience. Analytically, this finding underscores that trust and pedagogical ownership in AI-supported environments are strengthened when systems provide explicit spaces for human annotation, reflection, and contextual memory, allowing educators to integrate algorithmic insights with professional knowledge in a transparent and accountable manner.

5.11 Learners' Perceptions of augMENTOR Feedback: Usefulness and Alignment with Support Needs

Quantitative analysis of learner questionnaire responses (N = 94) provides strong and internally consistent evidence regarding learners' perceptions of the usefulness of augMENTOR's feedback and recommendation mechanisms. A substantial majority of participants (n = 85; 90.4%) indicated that the feedback supported their learning process, whereas only a small proportion (n = 9; 9.6%) reported a negative assessment. This distribution constitutes robust evidence of high learner acceptance of AI-supported feedback and recommendations. The significance of this finding is further reinforced by the heterogeneity of the pilot implementations, which spanned higher education, secondary education, adult learning, and vulnerable learner contexts. The consistency of positive responses across these diverse educational environments suggests that augMENTOR's feedback was not perceived as context-specific or limited in scope, but rather as pedagogically relevant across a broad range of learner profiles, instructional settings, and learning objectives.

This overall positive assessment is further corroborated by learners' evaluations of the extent to which augMENTOR's feedback addressed their individual support needs. Ratings collected on a 5-point Likert scale (1 = very poorly, 5 = very well) yielded a mean score of 3.46 and a median score of 4, indicating that learners generally perceived the feedback as addressing their needs well to very well. More than half of respondents (n = 50) selected high ratings (4–5), while an additional 29 learners reported moderate alignment (score 3). Lower ratings (scores 1–2; n = 15) were relatively limited, confirming that perceptions of inadequate support were not prevalent. Taken together, these indicators demonstrate not only overall appreciation of augMENTOR's feedback, but also its perceived relevance and responsiveness to learners' concrete learning challenges.

The quantitative findings are strongly supported by qualitative evidence derived from focus group discussions and open-ended questionnaire responses. Learners consistently characterised the feedback as guiding and clarifying, particularly in relation to performance expectations and areas requiring improvement. Illustratively, one learner reported that the feedback "***helped me see exactly where I was weak and what I should focus on next,"*** while another noted that it ***"made the evaluation clearer, not just a grade but an explanation."*** Such accounts indicate that learners experienced augMENTOR's feedback not as an opaque or purely algorithmic output, but as an intelligible and supportive pedagogical mechanism that facilitated reflection, conceptual understanding, and task completion. These qualitative insights provide explanatory depth for the high usefulness and alignment ratings observed in the quantitative data.

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Importantly, the small proportion of negative or low ratings should not be interpreted as a rejection of the augMENTOR approach. Qualitative analysis indicates that these responses were primarily associated with identifiable boundary conditions, including accessibility constraints (e.g. reading difficulties or language barriers), perceptions of overly generic phrasing in specific instances, and limited contextualisation when learner-generated data were sparse. Across pilot sites, educators consistently interpreted these issues as areas for iterative design refinement rather than as fundamental shortcomings of the system.

5.12 Frequency of Use of augMENTOR Feedback and Recommendations

Learners were asked to report how frequently they used augMENTOR's feedback, recommendations, or associated learning resources to support their learning throughout the course (N = 94). The distribution of responses reveals a pattern of selective yet pedagogically meaningful engagement. The most frequently selected response category was *sometimes* (38.3%), indicating that, for a substantial proportion of learners, augMENTOR functioned primarily as an on-demand support mechanism rather than as a continuously consulted resource. This usage pattern suggests that learners tended to access feedback at critical moments of uncertainty, reflection, or task completion, integrating it into their learning process when perceived as most relevant.

At the same time, a considerable proportion of participants (33.0%) reported high-frequency engagement with augMENTOR feedback. Specifically, 20.2% indicated that they used the feedback *often*, while 12.8% reported *very often* use. This finding indicates that approximately one third of learners incorporated augMENTOR feedback systematically into their learning practices, treating it as a recurring reference point for interpreting expectations, monitoring progress, and planning subsequent learning actions. From an evaluative perspective, this level of sustained use reflects not only functional acceptance of the system, but also its integration into learners' self-regulatory learning strategies.

Lower levels of engagement were reported by 28.7% of learners, with 18.1% indicating that they *never* used the feedback and 10.6% reporting *rare* use. However, when these quantitative findings are triangulated with qualitative data from focus group discussions, they do not indicate rejection or perceived irrelevance of augMENTOR. Instead, learners consistently associated lower usage with contextual and structural factors that constrained direct interaction with text-based feedback. These included reliance on educators to mediate or verbalise feedback, limited reading fluency or language proficiency, accessibility needs, and the timing of feedback delivery, which in some pilot implementations occurred after task completion. As one learner explained, ***"if I need someone to read it to me, I will wait for the teacher instead of checking it myself,"*** highlighting how accessibility considerations shaped patterns of use rather than underlying perceptions of value.

augMENTOR's feedback was not experienced as an intrusive, prescriptive, or externally imposed AI mechanism. Rather, it functioned as a learner-controlled scaffold that could be activated as needed, in accordance with individual learning preferences, capacities, and contextual constraints. The prevalence of moderate-to-high frequency use demonstrates pedagogical relevance and practical acceptance, while the absence of strong polarisation in responses suggests that learners exercised agency in deciding when and how to engage with the system. This engagement pattern is consistent with a human-centred model of AI integration, in which AI-generated feedback augments instructional guidance and reflective learning processes without displacing the central role of educators or learner autonomy.

5.13 Pedagogical Value of augMENTOR Feedback

The integrated analysis of quantitative questionnaire data and qualitative learner responses provides convergent and robust evidence regarding the pedagogical value of augMENTOR's feedback and recommendation mechanisms. Quantitative findings indicate that a clear majority of learners perceived the feedback as pedagogically beneficial: 54% of respondents rated the feedback as highly helpful (scores 4–5), while an additional 23% reported moderate helpfulness (score 3). Overall, 77% of participants experienced augMENTOR's feedback as at least moderately supportive of their learning. The resulting mean helpfulness score of 3.45 is substantially above the neutral midpoint of the scale, indicating a strong positive orientation toward the system's contribution to the learning process.

Qualitative findings provide essential explanatory depth to these numerical trends by elucidating the mechanisms through which learners experienced the feedback as pedagogically valuable. Across focus group discussions learners consistently characterised the feedback as personalised, detailed, and actionable. In particular, learners emphasised its capacity to identify specific weaknesses, clarify errors, and indicate concrete directions for improvement. As one participant noted, *"it wasn't just telling me I was wrong, it showed me what I needed to work on,"* while another highlighted that the feedback *"connected my answers with the learning objectives."* These statements demonstrate that learners perceived augMENTOR's feedback not merely as evaluative information, but as instructionally meaningful guidance embedded within the learning trajectory.

Importantly, the proportion of learners assigning moderate helpfulness ratings (score 3) is analytically significant and aligns closely with qualitative accounts that framed usefulness in terms of reflection and self-assessment rather than immediate performance improvement. Several learners described augMENTOR as particularly valuable for developing awareness of their learning profile, recognising recurring gaps, and engaging in critical self-evaluation over time. In these cases, usefulness was conceptualised not as instant correction or prescriptive instruction, but as support for metacognitive processes and longer-term skill development. This orientation suggests that learners evaluated augMENTOR through a

formative and learning-centred lens, consistent with principles of reflective and self-regulated learning.

5.14 Learner Motivation and Engagement in Relation to augMENTOR Feedback

Learners' responses concerning the motivational impact of augMENTOR reveal a moderately positive yet differentiated pattern of engagement. Quantitative analysis of questionnaire data (N = 94) indicates that nearly half of the respondents (46.8%) perceived a clear enhancement of their motivation to engage with course materials, selecting high agreement ratings (scores 4–5). An additional 27.7% reported a moderate motivational effect (score 3), while 25.5% indicated limited or no motivational impact (scores 1–2). The resulting mean score of 3.30 places perceived motivation above the neutral midpoint of the scale, albeit lower than ratings related to perceived usefulness or contribution to understanding. This distribution suggests that, although augMENTOR contributed positively to motivation for a substantial proportion of learners, motivational effects were less uniform than cognitive or instructional benefits.

Qualitative evidence provides critical interpretive depth to this quantitative pattern by clarifying the conditions under which augMENTOR supported learner motivation. Learners who reported increased motivation consistently linked this effect to clearer understanding of expectations, personalised feedback, and increased visibility of learning progress. In particular, learners emphasised that motivation emerged when feedback enabled them to recognise improvement or gain insight into their learning trajectory. As one learner noted, ***"seeing my progress made me want to continue,***" while another explained that ***"when I understood what I was doing wrong, I felt more engaged."*** These accounts indicate that motivation was primarily supported through cognitive and metacognitive mechanisms, such as enhanced self-awareness, perceived competence, and a sense of control over learning, rather than through novelty, gamification, or extrinsic incentives.

Learners who reported limited motivational impact did not describe augMENTOR as ineffective or irrelevant. Instead, qualitative responses indicate that these learners often perceived the system as useful for understanding or assessment purposes, but not as a primary driver of emotional engagement or motivation. Motivation in these cases was framed as being more strongly influenced by external factors, including workload intensity, time constraints, parallel academic or professional obligations, and pre-existing learning dispositions. Importantly, no qualitative evidence suggested active disengagement or resistance to the system; rather, learners described augMENTOR as ***"helpful but not motivating in itself,"*** indicating a nuanced and reflective evaluation of its role within the broader learning ecology.

5.15 Contribution of augMENTOR Feedback to Learners' Understanding of Course Content

Learners' responses regarding the contribution of augMENTOR's feedback and recommendations to their understanding of course content indicate one of the most consistently positive perceived impacts of the system. Quantitative analysis of questionnaire data (N = 94) shows that more than half of the respondents (55.3%) reported a high level of perceived improvement in understanding (scores 4–5), while a further 27.4% indicated a moderate positive effect (score 3). The resulting mean score of 3.57 represents a substantial positive deviation from the neutral midpoint of the scale, positioning cognitive understanding among the strongest learner-reported outcomes associated with the augMENTOR intervention.

Qualitative findings provide strong interpretive support for this quantitative pattern by elucidating the mechanisms through which augMENTOR feedback contributed to enhanced understanding. Across focus group discussions and open-ended questionnaire responses, learners repeatedly described how the feedback enabled them to revisit their answers, identify misconceptions, and understand why specific responses were incomplete or incorrect. One learner articulated this clearly by stating that *"**it helped me understand the topic, not just fix the answer,"*** while another emphasised that the feedback allowed them to *"see where the mistake was and why it was a mistake."* These accounts suggest that augMENTOR's feedback functioned not merely as corrective information, but as an explanatory scaffold supporting conceptual clarification.

In addition, several learners highlighted the value of gaining a broader overview of their learning across tasks and thematic units. Qualitative responses frequently referred to the ability to recognise patterns in performance, connect individual activities to overarching course objectives, and monitor progress over time. This capacity to situate task-level feedback within a course-wide learning trajectory was perceived as particularly beneficial for understanding more complex or cumulative content. Such accounts indicate that augMENTOR supported understanding at multiple levels, encompassing both micro-level (task-specific) comprehension and macro-level (course-wide) conceptual integration.

Lower ratings on this item were primarily associated with expectations for more discipline-specific, contextualised, or nuanced feedback, rather than with rejection of the system's value. Learners who expressed more reserved evaluations often noted that while the feedback was generally helpful, additional clarification from instructors was sometimes needed to fully address domain-specific complexities. From an epistemic standpoint, this differentiated pattern of responses strengthens the credibility of the findings, as it reflects critical and reflective learner judgement rather than uniform or unexamined endorsement.

6 Conclusions

As the augMENTOR project reaches its conclusion, the cross-pilot evaluation provides clear and convergent evidence regarding the project's main outcomes and contributions. Across diverse educational and training contexts, the findings demonstrate that augMENTOR is a **feasible, well-accepted, and pedagogically useful AI-supported solution** when embedded in structured courses and supported by active educator involvement. The project confirms that AI and learning analytics can enhance teaching and learning processes without replacing professional judgement or disrupting established pedagogical practices.

A key conclusion of the project is that augMENTOR successfully **transforms LMS-derived data into meaningful and usable pedagogical information**. Educators valued the system primarily for supporting the organisation and interpretation of learner data, rather than for automating instructional decisions. This function reduced the effort required to monitor learner engagement and enabled more focused and timely feedback, allowing educators to support larger learner groups while maintaining instructional quality and professional autonomy.

The evaluation further demonstrates that **trust and acceptance of AI-supported feedback are grounded in transparency and bounded system behaviour**. Trust in augMENTOR developed gradually through alignment with educators' own observations and was reinforced by the system's non-prescriptive design and its explicit handling of data limitations. These characteristics positioned augMENTOR as a supportive analytical tool rather than an authoritative decision-maker.

From the learners' perspective, augMENTOR feedback was generally perceived as **useful and supportive of learning**, particularly in enhancing understanding of course content and supporting reflection. While levels of learner engagement with feedback varied across contexts, the findings indicate that augMENTOR functioned as a flexible support mechanism that learners could use when needed, without constraining autonomy.

Finally, the evaluation highlights that the **impact of AI-supported feedback is conditional**. Early integration into the course lifecycle, alignment with pedagogical design, and attention to accessibility emerged as critical factors for effectiveness. The Notes feature further proved essential in preserving contextual information and supporting educators' reflective and accountable use of analytics. Overall, the project confirms that augMENTOR's added value lies in **augmenting human pedagogical processes**, not substituting them.

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7 Recommendations

Building on the cross-pilot evidence, the following recommendations are proposed to support refinement, scalability, and responsible uptake of augMENTOR beyond the project's lifetime. It should be noted that an earlier draft set of these recommendations were communicated to the technical partners to allow them to integrate feasible changes before the augMENTOR platform was finalised.

1. Accessibility should be strengthened through the introduction of multimodal feedback options, such as audio output, simplified language, or combined text–visual summaries. These adaptations will ensure equitable learner access to feedback, particularly in inclusive settings, and to reduce reliance on educator mediation.
2. The explainability of recommendations could be further enhanced. Future development could better articulate the rationale behind each recommendation by linking it explicitly to underlying indicators and data sources, while maintaining transparent signals regarding data sufficiency. This will support educator validation practices and strengthen trust and interpretability for all users.
3. Personalisation could be refined while remaining strictly grounded in available data. Although recommendations were generally perceived as personalised, qualitative evidence indicates that personalisation was mainly indicator-based. Future iterations could focus on more context-sensitive and actionable guidance that aligns with course design and learner needs, without extending beyond what can be reliably inferred from data.
4. The evaluation also underscores the importance of early and sustained integration of augMENTOR within the course lifecycle. When introduced late, feedback tended to function summatively, limiting its formative value. Broader deployment could therefore prioritise early integration to enable instructional adjustment and learner self-regulation during the learning process.
5. Deployment needs to be accompanied by pedagogical guidance that supports feedback literacy. Short learner-facing explanations on how to interpret and use feedback, together with facilitation prompts for educators, would increase the likelihood that recommendations are meaningfully engaged with and acted upon.
6. Human-in-the-loop features could be consolidated and extended. The Notes function proved critical for contextualisation and pedagogical accountability and should be preserved and further strengthened to support continuity of reasoning and transparent documentation of educator decisions.
7. Finally, broader deployment needs to prioritise interoperability and risk mitigation across platform ecosystems. Stable data flows, LMS compatibility, clear technical guidance, and attention to data governance are essential to reduce dependency on volatile third-party platforms and to ensure sustainable implementation.

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Annex I

Questionnaire AUGMENTOR | EDUCATORS

Ovaj upitnik se isključivo fokusira na korišćenje **augMENTOR** rešenja (a ne na Moodle platformu). **augMENTOR** je alat dizajniran da podrži nastavnike, pružajući im povratne informacije i ciljana preporuke za studente na različitim nivoima. Zahvaljujemo vam se na vremenu koje ćete izdvojiti da popunite upitnik i podstičemo vas da date što detaljnije odgovore, kako bi se unapredila evaluacija i dalji razvoj ovog alata. Informacije koje navedete u ovom upitniku su strogo poverljive i koristiće se isključivo u istraživačke svrhe. Vaše učešće je anonimno i podaci neće biti povezani sa vašim identitetom. Iskreno vam zahvaljujemo na doprinosu u evaluaciji i unapređenju alata **augMENTOR**.

This questionnaire focuses exclusively on the use of the **augMENTOR** solution (and not the Moodle platform). **augMENTOR** is a tool designed to support educators by providing feedback and targeted recommendations for students at various levels. We sincerely thank you for taking the time to complete it and encourage you to be as detailed as possible in your responses, in order to enhance the evaluation and improvement of the tool. The information you provide in this questionnaire is strictly confidential and will be used solely for research purposes. Your participation is anonymous, and your data will not be linked to your identity. We deeply appreciate your contribution to the evaluation and enhancement of the augMENTOR tool.

Section 1

A. NASTAVNICI: INTERAKCIJA SA AUGMENTOR REŠENJEM

EDUCATORS: INTERACTION WITH THE AUGMENTOR SOLUTION

1. Prilagodljive funkcije platforme augMENTOR odgovaraju individualnim potrebama učenika/učenica. *(The adaptive features of augMENTOR respond to the individual needs of the learners.)* *

☆ ☆ ☆ ☆ ☆

2. Prilagodljive funkcije platforme augMENTOR podržavaju razvoj individualnih veština.
(The adaptive features of augMENTOR support the development of individual skills.) *

☆ ☆ ☆ ☆ ☆

3. Alati za analizu učenja (learning analytics) platforme augMENTOR pružaju korisne informacije.
(The learning analytics tools of augMENTOR provide useful information.) *

☆ ☆ ☆ ☆ ☆

4. Povratne informacije (feedback) koje pruža augMENTOR odgovaraju individualnim potrebama učenika/učenica.
(The feedback provided by augMENTOR meets the individual needs of the learners.) *

☆ ☆ ☆ ☆ ☆

5. Preporuke (recommendations) koje pruža augMENTOR odgovaraju individualnim potrebama učenika/učenica.
(The recommendations provided by augMENTOR meet the individual needs of the learners.) *

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6. Platforma augMENTOR pomaže nastavnicima da prate aktivno učešće učenika/učenica u obrazovnom sadržaju i aktivnostima kursa.
(The augMENTOR platform helps teachers monitor learners' active participation with the course content and learning activities.) *

☆ ☆ ☆ ☆ ☆

7. Platforma augMENTOR pruža korisne povratne informacije (feedback) za unapređenje aktivnog učešća učenika/učenica u radu sa obrazovnim materijalom i aktivnostima.
(The augMENTOR platform provides useful feedback to improve learners' active participation with the learning material and activities.) *

☆ ☆ ☆ ☆ ☆

8. Platforma augMENTOR pruža korisne preporuke (recommendations) za unapređenje aktivnog učešća učenika/učenica u radu sa obrazovnim materijalom i aktivnostima.
(The augMENTOR platform provides useful recommendations to improve learners' active participation with the learning material and activities.) *

☆ ☆ ☆ ☆ ☆

9. Platforma augMENTOR pomaže nastavnicima da prate motivaciju učenika/učenica.
(The augMENTOR platform helps teachers monitor learners' motivation.) *

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10. Platforma augMENTOR pruža korisne preporuke za unapređenje motivacije učenika/učenica.
(The augMENTOR platform provides useful recommendations to improve learners' motivation.) *

☆ ☆ ☆ ☆ ☆

11. Platforma augMENTOR podržava nastavnike u refleksiji o sopstvenoj nastavi.
(The augMENTOR platform supports teachers in reflecting on their own teaching.) *

☆ ☆ ☆ ☆ ☆

12. Platforma augMENTOR podstiče učenike/učenice da razmišljaju kritički.
(The augMENTOR platform encourages learners to think critically.) *

☆ ☆ ☆ ☆ ☆

13. Platforma augMENTOR podstiče učenike/učenice da razmišljaju u pravcu rešavanja problema.
(The augMENTOR platform encourages learners to think in a problem-solving manner.) *

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14. Platforma augMENTOR pomaže nastavnicima da poboljšaju povratne informacije koje pružaju učenicima/učenicama.
(The augMENTOR platform helps teachers improve the feedback they provide to learners.) *

☆ ☆ ☆ ☆ ☆

15. Platforma augMENTOR personalizuje preporuke (recommendations) za obrazovni materijal.
(The augMENTOR platform personalizes recommendations for the learning material.) *

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16. Platforma augMENTOR predlaže konkretne izmene u dizajnu kursa, zasnovane na podacima koji proizilaze iz praćenja napredovanja i interakcije učenika/učenica sa sadržajem kursa.
(The augMENTOR platform recommends specific changes in course design, based on data derived from monitoring learners' progress and interaction with the course.) *

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17. Platforma augMENTOR pruža preporuke (recommendations) koje se zasnivaju na utemeljenim pedagoškim principima i odgovaraju potrebama nastavne prakse.
(The augMENTOR platform provides recommendations based on well-established pedagogical principles and aligned with the needs of teaching practice.) *

☆ ☆ ☆ ☆ ☆

18. Platforma augMENTOR podržava primenu stečenog znanja učenika/učenica u stvarnim, iskustvenim ili profesionalnim okruženjima.
(The augMENTOR platform supports the application of acquired knowledge by learners in real, experiential, or professional settings.) *

☆ ☆ ☆ ☆ ☆

19. Funkcija „Notes" na platformi augMENTOR je korisna za beleženje zapažanja, razmišljanja ili informacija u vezi sa napretkom i potrebama učenika/učenica.
(The "Notes" function of the augMENTOR platform is useful for recording observations, thoughts, or information regarding learners' progress and needs.) *

☆ ☆ ☆ ☆ ☆

20. Kada mi platforma augMENTOR pruži povratne informacije za učenike/učenice, prosleđujem ih njima bez izmena.
(When the augMENTOR platform provides me with feedback for the learners, I forward it to them without modifications.) *

☆ ☆ ☆ ☆ ☆

21. Platforma augMENTOR mi pruža povratne informacije koje pročitam, prilagodim i iskoristim kada ih prosleđujem svojim učenicima/učenicama.
(The augMENTOR platform provides me with feedback, which I read, adapt, and utilize when conveying it to my learners.)

☆ ☆ ☆ ☆ ☆

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22. Kako su učenici/učenice reagovali na povratne informacije koje ste im pružili putem augMENTOR rešenja?
(Molim vas da opišete, ako je moguće, na koji način su iskoristili povratne informacije i da li ste primetili promene u njihovom učinku.)
Da li je bilo konkretnih slučajeva u kojima su povratne informacije augMENTOR-a pomogle nekom učeniku/učenici da poboljša svoje učešće u nastavi ili svoj uspeh? Postoje li aspekti za koje smatrate da bi mogli dodatno da se unaprede?

(How did the learners respond to the feedback you provided through the augMENTOR Solution? Please describe, if possible, how they used the feedback and whether you observed any changes in their performance. Were there specific cases where augMENTOR's feedback helped a learner improve their participation or performance? Are there aspects you believe need further improvement?) *

Enter your answer

23. Možete li da opišete jednu ili više preporuka (recommendations) koje ste dobili od platforme augMENTOR i koje ste smatrali posebno korisnim?
(Molimo vas da navedete ukratko sadržaj preporuke i u kom kontekstu vam je ðata.) Koji su razlozi zbog kojih ste ove preporuke smatrali važnim ili vrednim pažnje?
(Razmislite, na primer, o njihovoj povezanosti sa potrebama učenika/učenica ili o korisnosti za nastavu.) *(Can you describe one or more recommendations you received from the augMENTOR platform that you found particularly useful? Please indicate briefly the content of the recommendation and the context in which it was given.*
What were the reasons that led you to consider these recommendations important or valuable? For example, consider their relevance to learners' needs or their usefulness for teaching.) *

Enter your answer

24. Da li ste uočili određene obrasce ili tendencije u načinu učenja svojih učenika/učenica putem povratnih informacija ili preporuka koje ste dobili kroz augMENTOR rešenje?
Ako jeste, opišite ih svojim rečima i recite nam u kojoj meri ste ih iskoristili u svojoj nastavi. *(Did you identify specific patterns or trends in your learners' learning process through the feedback or recommendations provided by the augMENTOR Solution?*
If yes, please describe them in your own words and tell us to what extent you used them in your teaching.) *

Enter your answer

25. Da li vam je augMENTOR rešenje pomoglo da identifikujete praznine u procesu učenja vaših učenika/učenica?
Ako jeste, koje su to praznine bile i na koji način vam je augMENTOR pomogao da ih prepoznate? *(Did the augMENTOR Solution help you identify gaps in your learners' learning process?*
If yes, what were those gaps and how did the Augmentor Solution help you identify them?) *

Enter your answer

26. Da li ste ikada dobili povratne informacije ili preporuke od augMENTOR rešenja koje nisu odgovarale potrebama vaših učenika/učenica?
Ako jeste, objasnite, molimo vas, koji su to aspekti bili i zašto ih niste smatrali zadovoljavajućim. *(Have you ever received feedback or recommendations from the augMENTOR Solution that did not meet your learners' needs?*
If yes, please explain which aspects those were and why you did not find them satisfactory.) *

Enter your answer

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B. UČENICI/CE: INTERAKCIJA SA AUGMENTOR REŠENJEM

LEARNERS: INTERACTION WITH THE AUGMENTOR SOLUTION

27. Moji učenici/učenice su smatrali korisnim povratne informacije i/ili preporuke koje su dobili putem platforme augMENTOR.
(My learners found the feedback and/or recommendations they received from the augMENTOR platform useful.) *

☆ ☆ ☆ ☆ ☆

28. Moji učenici/učenice su izrazili pozitivne komentare o svom iskustvu sa platformom augMENTOR.
(My learners expressed positive comments about their experience with the augMENTOR platform.) *

☆ ☆ ☆ ☆ ☆

29. Ako imate neki konkretan komentar od učenika/učenica u vezi sa povratnim informacijama ili preporukama koje su dobili i koji biste želeli da podelite, molimo vas da ga napišete ovde:
(If you have any specific comment from learners regarding the feedback or recommendations they received and would like to share, please write it here:) *

Enter your answer

Section 3 ...

C. MIŠLJENJA O AUGMENTOR-U

C. OPINIONS ABOUT AUGMENTOR

30. Koje predloge imate kako bi platforma bila još korisnija za vas i vaše učenike/učenice?
(What suggestions do you have to make the platform even more useful for you and your learners?) *

Enter your answer

31. Da li biste preporučili korišćenje augMENTOR rešenja drugim nastavnicima/nastavnicama?
(Would you recommend the use of the augMENTOR Solution to other educators?)
*

☆ ☆ ☆ ☆ ☆

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Annex II

LEARNERS QUESTIONNAIRE

When you submit this form, it will not automatically collect your details like name and email address unless you provide it yourself.

* Required

1. How many online educational courses have you participated in as a student/learner up to now? **(Πόσα διαδικτυακά εκπαιδευτικά μαθήματα έχετε παρακολουθήσει ως φοιτητής/τρια μέχρι σήμερα;** *

- ○ 0
- ○ 1-2
- ○ 3-5
- ○ 6-10
- ○ More than 10
- ○ Option 6

2. Have any of the online courses you participated in included an AI assistant, such as the augMENTOR solution, that provided feedback or recommendations through your educators to make your learning experience more personalized to your learning style? **Από τα μαθήματα που παρακολούθησες υπήρχε κάποιο που συμπεριλάμβανε βοηθό Τεχνητής Νοημοσύνης όπως το augMENTOR solution το οποίο παρείχε ανατροφοδότηση ή συστάσεις για την πορεία σου στο μάθημα;** *

- ○ Yes
- ○ No

3. Did you find the feedback and recommendations of augMENTOR solution provided to you helpful in your learning process? **(Βρήκες χρήσιμες τις ανατροφοδοτήσεις και τις συστάσεις που σου δόθηκαν από το augMENTOR ;** *

- ○ Yes
- ○ No

4. How often did you use the feedback and/or recommendations from the augMENTOR solution to improve your understanding of the course material? **Πόσο συχνά χρησιμοποιούσες τις ανατροφοδοτήσεις ή/και τις συστάσεις από το augMENTOR solution για να κατανοήσεις καλύτερα το υλικό του μαθήματος;** *

☆ ☆ ☆ ☆ ☆

5. How well did the feedback/recommendations from the augMENTOR Solution address the areas where you needed the most support? **Πόσο καλά ανταποκρίθηκαν οι ανατροφοδοτήσεις και/ή οι συστάσεις από το augMENTOR solution στους τομείς όπου χρειαζόσουν τη μεγαλύτερη υποστήριξη για το μάθημα;** *

☆ ☆ ☆ ☆ ☆

6. How often did you follow the feedback/recommendations provided by the augMENTOR Solution to explore additional learning materials? How often did you use augMENTOR Solution feedback/recommendations or additional resources of material to help guide your learning throughout the course? **Πόσο συχνά ακολουθούσες τις ανατροφοδοτήσεις ή/και τις συστάσεις από το augMENTOR solution για να εξερευνήσεις πρόσθετο μαθησιακό υλικό;** *

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7. How often did you use augMENTOR Solution feedback/recommendations or additional resources of material to help guide your learning throughout the course? **Πόσο συχνά χρησιμοποιούσες τις ανατροφοδοτήσεις ή/και τις συστάσεις από το augMENTOR solution ή πρόσθετο υλικό για να καθοδηγήσεις τη μάθησή σου κατά τη διάρκεια του μαθήματος;** *

☆ ☆ ☆ ☆ ☆

8. How helpful were the feedback/recommendations offered by the augMENTOR solution for upgrading your learning experiences? **Πόσο σε βοήθησαν οι ανατροφοδοτήσεις ή/και οι συστάσεις από το augMENTOR solution να βελτιώσεις τη μαθησιακή σου εμπειρία;** *

☆ ☆ ☆ ☆ ☆

9. The augMENTOR solution helped personalise my learning experience. **Το augMENTOR solution με βοήθησε να προσαρμόσω τη μαθησιακή μου εμπειρία στις ανάγκες μου.** *

☆ ☆ ☆ ☆ ☆

10. The augMENTOR solution enhanced my motivation to engage with course material. **Το augMENTOR solution ενίσχυσε το κίνητρο μου να ασχοληθώ με το υλικό του μαθήματος.** *

☆ ☆ ☆ ☆ ☆

11. I found the feedback and recommendations of augMENTOR solution useful in improving my understanding of course topics. **Βρήκα χρήσιμες τις ανατροφοδοτήσεις και τις συστάσεις του augMENTOR solution για να κατανοήσω καλύτερα τα θέματα του μαθήματος.** *

☆ ☆ ☆ ☆ ☆

12. I found the feedback and recommendations from the augMENTOR solution useful in monitoring my performance. **Βρήκα χρήσιμες τις ανατροφοδοτήσεις και τις συστάσεις από το augMENTOR solution για την παρακολούθηση της απόδοσής μου στο μάθημα.** *

☆ ☆ ☆ ☆ ☆

13. How would you rate your overall satisfaction with the augMENTOR solution? **Πόσο ικανοποιημένος/η είσαι από το augMENTOR solution;** *

☆ ☆ ☆ ☆ ☆

14. What aspects of the augMENTOR Solution did you find most helpful or valuable in your learning journey? Feel free to share any specific examples where the solution had a positive impact on your learning experience. **Ποια στοιχεία του augMENTOR solution βρήκες πιο χρήσιμα; Μοιράσου μαζί μας συγκεκριμένα παραδείγματα.** *

Enter your answer

15. Is there anything else you would like to share about your experience with the augMENTOR Solution in this online course? Feel free to share any specific moments, challenges, or successes that you think are important for us to know.
Υπάρχει κάτι ακόμη που θα ήθελες να μοιραστείς σχετικά με την εμπειρία σου από τη χρήση του augMENTOR solution; Μπορείς να αναφέρεις παραδείγματα από τη διεπίδραση σου με το augMENTOR. *

Enter your answer

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