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Online Proctoring Manager
Further education program for supporting digital transformation at
Higher Education Institutions

Curriculum of the training course Online Proctoring Manager



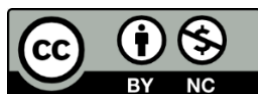
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1. Introduction

The ongoing digital transformation as well as the current debate on equity and accessibility of higher education revealed the relevance of online assessment and, in particular, of Online Proctoring as a flexible solution for taking a fair online supervised exam from anywhere and anytime by means of a specialized proctoring software.

Admittedly, Online Proctoring is not widely used yet at Europe's higher education institutions due to many reasons, such as missing legal framework, low awareness of relevant stakeholders or lack of professionals capable of implementing and coordinating Online Proctoring services at their organizations. To support digital transition at Europe's HEIs and their strategies towards offering education for all, the Erasmus+ project "Online Proctoring Manager – further education program for supporting digital transformation at HEIs (PROWIDE)" was carried out aiming at promotion of Online Proctoring services through creating and testing an innovative training program Online Proctoring Manager including developing an associated qualification profile.

The qualification profile Online Proctoring Manager was the first substantial deliverable under the PROWIDE project, which laid foundations for the design of the curriculum of the associated training course. The partnership identified a total of the 16 most relevant skills of an Online Proctoring Manager and categorized them into four major competence fields as follows: four professional competences, four personal competences, six social competences, and two methodological competences. Visit the website <https://www.proctoring-manager.eu/results> and learn more about the skill set and competences of a potential Online Proctoring Manager as well as about the project methodology applied for the identification of those skills.

The present document outlines the curriculum of the training course Online Proctoring Manager. It provides some details about the curriculum development process, uncovers the goal and objectives, contents, recommended implementation and assessment strategy of the training as well as drafts arrangements which were put in place towards offering the training course to a wider community of non-formal learners after the project's lifetime.

The document can be freely used by various educational and training institutions interested in adopting the course contents and delivery strategy and integrating them in their own educational offerings.

2. Curriculum development

The curriculum development process was designed as a collaborative activity and was led by the project partner Anadolu University.

The curriculum development process based on the competences identified during the first activity of the project relating to the elaboration of the qualification profile of an Online Proctoring Manager. After reaching a consensus on these competences, the Anadolu University team has prepared a draft curriculum for the online training. The logic model of curriculum development was used to develop this draft version. Later the partners' inputs were sought during online and face-to-face partners meetings. After the second round, all the partners agreed on the curriculum Online Proctoring Manager. Each partner led the production of a designated module of the training by referring to the main course curriculum.

Additionally, it was decided to create two implementation strategy of the training course: one for the pilot testing of the course and one to be offered to a wider audience after the project's lifetime. For the pilot implementation, a guided study approach was identified to test the effectiveness, efficiency and appeal of the training. For the posterior course implementation, a self-paced study approach was determined for ensuring the sustainability of the training. However, during the design of the learning activities in piloting phase, this second implementation strategy was kept in mind to be able to secure an easy transformation to a self-paced learning mode.

The curriculum presented in the scope of this document reflects the pilot implementation strategy of the course Online Proctoring Manager, and also



depicts a few arrangements made towards offering the course for self-studies.

3.Goal, objectives and target groups

The goal of the training had two folds: First, it intended to help managers of the exam/assessment proctoring processes in higher education institutions have a deep understanding about the effective, efficient, engaging and enduring proctoring implementations, and acquire skills to build and manage such an implementation. Second, the training aimed to support staff involved in proctored assessment processes to understand the roles they could perform, and to acquire competences associated with these roles.

At the end of the training, the participants will be able to:

1. Have a deep understanding about:
 - a) technology-based teaching and assessment,
 - b) technology-enhanced teaching and assessment,
 - c) effective proctoring.

2. Evaluate the assessment proctoring implementations based on local and universal legal frameworks in terms of:
 - a) security,
 - b) privacy,
 - c) global standards related to management and implementation of online and distance education,



- d) local legislations related to management and implementation of online and distance education.
3. Demonstrate basic technology skills to be able to manage an assessment proctoring system, such as:
 - a) characteristics of modern campus management systems (CMS),
 - b) functions of learning management systems (LMS),
 - c) stand-alone versus LMS-integrated online exam systems,
 - d) selection of and effective setting procedures of proctoring systems.
4. Discuss the role and general characteristics of an effective, efficient, engaging and enduring assessment proctoring system in the institutional and global context regarding:
 - a) main components of an effective proctoring system,
 - b) roles and competences required for human resources.
 - c) quality assurance processes.
5. Manage and solve conflicts that may occur among different stakeholders (learners, teachers, managers, staff, etc.) of an assessment proctoring system, in particular:
 - a) develop effective solutions to resolving conflicts,
 - b) work effectively with professors and instructors/teachers who approach online learning, online assessment and online proctoring critically.
6. Develop and manage assessment proctoring projects efficiently having various risks in mind:
 - a) managing projects,
 - b) managing risks.
7. Adapt an assessment proctoring system or implementation according to requirements of unexpected or future changes.
8. Develop the needed soft skills to effectively act in situations associated with online proctoring implementation, such as:
 - a) adapt themselves to changing work environment and context,
 - b) demonstrate assertive behaviour,
 - c) make data-driven decisions,
 - d) show no hesitation to take responsibility in varying situations,
 - e) communicate effectively in oral, written and visual forms,



- f) work in teams effectively,
- g) demonstrate effective negotiation skills,
- h) develop practical and theory-based solutions to problems encountered.

4. Contents and workload of the training

Based on the training goal and objectives identified above, the training was composed of eight major modules, which were divided into 27 learning units to promote bite-sized learning. The training was designed as a fully online course with mostly asynchronous independent learning activities. Modules and learning units are listed below in the Table 1:



Module/Lead		Learning Unit		Objective	Delivery Mode
1	Introduction to technology-based/technology-enhanced teaching and assessment (<i>Anadolu University</i>)	1.1	Technology-based vs technology-enhanced teaching and learning	1a, 1b	Guided
		1.2	Assessment and evaluation in technology-based and technology-enhanced learning	1a, 1b	Guided
		1.3	Effective proctoring	1c	Guided
2	Role and characteristics of assessment proctoring systems (<i>Anadolu University</i>)	2.1	Main components of proctoring systems	4a	Guided
		2.2	HR roles and competences	4b	Guided
		2.3	Quality assurance	4c	Guided
3	Technological infrastructure (<i>Fachhochschule des Mittelstands, Proctorio</i>)	3.1	Campus management systems	3a	Guided
		3.2	Learning management systems	3b	Guided
		3.3	Online assessment systems	3c	Guided
		3.4	Proctoring systems	3d	Guided
4	Legal frameworks (<i>Proctorio</i>)	4.1	Security in assessment proctoring	2a	Guided
		4.2	Privacy in assessment proctoring	2b	Guided
		4.3	Global standards	2c	Guided
		4.4	Local legislations	2d	Guided



5	Conflict management (<i>Liepaja University</i>)	5.1	Conflict management	5a	Guided
		5.2	Critical faculties	5b	Guided
6	Project and risk management (<i>Fachhochschule des Mittelstands</i>)	6.1	Project management	6a	Guided
		6.2	Risk management	6b	Guided
7	Change management (<i>UNINETTUNO</i>)	7	Change management	7	Guided
8	Personal and social skills (<i>UNINETTUNO</i>)	8.1	Adaptability and Flexibility	8a	Self-paced
		8.2	Assertiveness	8b	Self-paced
		8.3	Decision-making	8c	Self-paced
		8.4	Sense of responsibility	8d	Self-paced
		8.5	Effective communication	8e	Self-paced
		8.6	Teamwork	8f	Self-paced
		8.7	Negotiation	8g	Self-paced
		8.8	Problem-solving	8h	Self-paced
	Training Wrap-up (<i>Anadolu University</i>)		Final proctored exam. Training evaluation		Self-paced

Table 1: Structure of the course Online Proctoring Manager.

Each module was designed in a way to cover an introduction section consisting of an introduction text and introduction video of max. 3 minutes, and several learning units. Each learning unit addressed one single learning objective (skill) of the training, and embraced following materials and activities:



- **Introductory text and visual:** a welcome part for each learning unit. It provided brief information about the unit including objective targeted and activities.
- **Learning videos:** intended to provide the knowledge base and showed examples about the topics in the learning unit. The duration of each video was about 10 minutes.
- **Supporting texts embedded into the virtual learning environment near the video lectures:** aimed to give some insight about the video lectures and the topic as well as support the video lectures. The volume of each supporting text was between 300 - 1000 words.
- **Supporting text materials:** downloadable PDFs which targeted to support the video-based knowledge presentations. They were created as a new document and/or presentation or an available material from the literature.
- **Assignments:** they mainly intended to create a discussion and experience sharing opportunity for the learners. The participants were asked to indicate their insights, feedbacks, experiences, concerns, etc. in the forum environment, which are supposed to be monitored by the course facilitators. For learners from each country taking part in the pilot edition of the course (Germany, Italy, Turkey), a special forum environment was created to allow the learners participate in their own language.
- **Learning Unit Quiz:** was provided for learners to check how well they understand the content at the end of each unit. It was a self-knowledge-check opportunity, and each included at least 3 questions.

All the course materials/activities listed above were elaborated in English and were supposed to be learned/performed asynchronously.

The training contents were integrated to the Moodle learning environment, which was offered by partner Anadolu University <https://provide.anadolu.edu.tr/login/index.php>.

Each of the first four modules of the training required the workload between 25 - 30 hours. The whole training completion was equal to 6 ECTS.



5. Assessment strategy

For the pilot edition of the course Online Proctoring Manager, a well-thought assessment strategy was designed and implemented, since the partnership envisaged granting ECTS and issuing a Certificate of Completion to pilot course participants. The following assessment criteria were put in place:

- **Completion of all suggested learning activities** under each learning unit and each module, such as viewing videos, reading supporting materials, assignment etc.
- **Completion of the end module tests:** at the end of each module, a proctored online test had to be taken. The remote test supervision was enabled by partner Proctorio who installed their software in the course environment. Each module test was designed as a multiple choice and consisted of at least 15 questions. About 30 minutes were recommended to complete the proctored test. The module tests could



be completed at any time within the default course duration (October 17, 2022 – March 5, 2023). At least 70% of correct answers needed to be provided under each end module test. Three attempts were possible.

- **Completion of the final exam:** The final exam designed as a multiple choice consisted of all the questions asked under the end module test (5 from each module), and included in total 40 questions. Each time the participants entered the test a different set of 40 questions appeared in the exam. The final exam was also proctored by means of the software Proctorio. At least 70% of correct answers needed to be provided. Three attempts were possible. The highest score was considered as the final score.
- **Completion of the evaluation survey:** The evaluation form was designed to get the participants reactions to the training structure and content. It included questions regarding satisfaction and perceived learning variables as well as training and implementation of the training and the facilitators.

Course participants who fulfilled all the requirements above received a Certificate Online Proctoring Manager with 6 ECTS.

6. Certification

The pilot training course offered three types of certifications:



1. **Certificate of completion:** This certificate was supposed to be issued to course participants who completed all the envisaged learning activities under all modules, including module tests, and successfully passed through the final proctored exam by reaching at least 70% of the correct answers.
2. **Certificate of participation:** This certificate targeted participants who completed the learning activities but failed to get 70% of correct answers under the final proctored exam.
3. **Certificate of module completion:** This type of certificate addressed learners who decided to complete only selected modules of the training, including taking a proctored module test and reaching at least 70% of the correct answers. For the first four modules addressing specific Online Proctoring skills, the indication of ECTS was possible (1 ECTS per module).

The decision on issuing a specific certificate type to learners from the country concerned had to be taken by each PROWIDE institution.

Along with the certificate, the training also provided a digital badge for each module as well as training completion.

7. Implementation of the pilot course

For the piloting, the online guided study mode was employed to get better insight from the participants and the teachers about the effectiveness, efficiency, engagement, and sustainability of the training. During the piloting phase that lasted from October 17, 2022 to March 5, 2023, one or two trained teachers from each PROWIDE country took the facilitator role and supported the participants learning progresses in their countries. The facilitators communicated with the participants in local languages.

There was two types of the facilitator support:

- **Asynchronous communication:** facilitators sent instructions, announcements, reminders and other communications via Moodle to their learners, viewed Grade books with Proctorio results, and contacted learners if they noticed any suspicious behaviour.
- **Synchronous online sessions:** these sessions were organized to create a discussion and experience sharing opportunity with the participants of the training. Each session was taking minimum 45 minutes. They were offered by native course facilitators in their own languages. At least one session per module (except of the module 8) was intended.

In total, 17 participants completed the entire training and received their certificates of the training completion.



8. Adapting the training course to the non-formal learning context

After the piloting phase, the training was improved by considering participants feedback, and transformed to a self-paced mode. The main incentive for this transition was to ensure the sustainability of the course. The following provisions were made:

- The training remains available at LMS Moodle of Anadolu University under <https://prowide.anadolu.edu.tr/login/index.php> as an open online self-paced course for any type of learners wishing to improve their skills relating to Online Proctoring. The option Self-registration to the course is activated. No course fees need to be paid.
- No facilitator support (such as synchronous sessions or instructions) resp. no activities that require an active participation of the course facilitators (i.e. assignments to be reviewed by facilitators) will be available. Instead, participants can interact with each other by means of forums or chats.
- No proctors will be available to supervise module tests.
- Setting up an online proctored exam as learning task under Module 3 will remain available for free at any LMS deployed by learners. To do so, participants will need to send a request to Proctorio using this email address: sales@proctorio.de
- Non-formal learners will receive digital badges for the completion of each training module, which can be attached to their bio.
- The OER repository will be available, which means a collection of stand-alone learning materials developed by partners under the course modules (readings, learning videos, interactive resources). They are



attributed to the CC-BY-SA license allowing for copying, sharing and adapting the materials.

Moreover, the target groups of the course were considered more broadly so that training may attract the attention of individuals in different roles in their institutions. Apart from managers, which were initially targeted by the training, the partnership envisioned three further roles in an online assessment and exam proctoring system: technician, support staff and proctor.

- **Technician:** employees with a technical background ensuring the proper functioning of a technical infrastructure for the implementation and execution of e-examinations and proctoring. They are responsible for the smooth running and provide support in case of technical problems. They are either the support person themselves, or direct staff to take over these tasks.
- **Support staff:** they are responsible for helping instructors/teachers transform their traditional assessments into e-assessment and for training and supporting them on how to conduct online proctoring. Also, these people may work in departments that are involved with the topic of e-examinations and/or proctoring. For example, they assess from the examinations office whether the procedures are carried out properly according to legal requirements, advise and support the examination administration with their expertise. However, they can also be persons from the departments (faculties) who accompany the implementation and execution of e-examinations and proctoring from a subject-specific perspective and, for example, support the dissemination in the department.
- **Proctors:** they can either be target groups who only monitor the actual implementation of the e-exam and are available for central support. However, this function can also be defined more broadly and then also include, for example, the support of the examiners and/or students in the run-up to the implementation. In some cases, this function of the proctor is also entrusted with the assessment of video recordings of examinations. After the examination, the proctor must then decide whether abnormal behavior based on estimation shall be escalated to the next level, in which the final decision will be made by the examination office.



Depending on their roles in the institutions, the future non-formal course participants can take different sections of the training. Those who would like to manage assessment proctoring systems or implementations are suggested to complete all the learning units and modules. On the other hand, those who will be working as technical staff should take only the learning units under modules 3 and 4. They may take as many others as they would like to. Similarly, those who will serve as support staff should take all the learning units under modules 1, 4 and 5, and may take any of the others. Please view the table 2 below, which provides a few recommendations for taking course module considering the current (or planned) role at home institutions.

Main role at institution	Recommended modules	Selective modules
Manager	1, 2, 3, 4, 5, 6, 7, 8	-
Technician	3, 4	All others
Support Staff	1, 4, 5	All others
Proctor	1, 2, 4	All others

Table 2: Recommendations for module completion based on the main roles at institutions.

9. Conclusions and outlook

The pilot implementation of the training course Online Proctoring Manager demonstrated the pertinence of the training contents, the feasibility of the learning and assessment strategy, and the convenient, fair and secure way of taking online proctored exam. 17 persons out of the registered 90 individuals successfully completed the entire training and received certificates Online Proctoring Manager. They have all confirmed that the knowledge and skills obtained from the training will play a crucial role when performing their daily job activities linked to online assessment.



The present document can be further used by non-formal learners who plan to independently study the course materials, or by any type of educational providers who might be interested in adopting the training contents and their integration to the existing learning offerings. For example, a formal course Online Proctoring Manager might emerge (though, the title of the course might vary depending on the envisaged training objectives), or the course contents might be incorporated to existing Bachelor, Master or PhD programs. Education providers are invited to revise their existing offerings and think over strategies towards innovating their curricula.

With the training course Online Proctoring Manager, the PROWIDE partnership is glad to contribute to improving academic integrity, boosting digital transformation at higher education institution, and promoting the flexible and high-quality education for all.