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

Evaluation of the Pilot Training Online Proctoring Manager



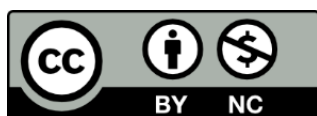
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1. Introduction

This report presents the results of the evaluation of the pilot implementation of the Online Proctoring Manager training course and the actions taken based on these results.

Piloting a training program before its rollout is important for several reasons, including to evaluate effectiveness, identify challenges, refine instructional strategies, tailor to diverse learners, build stakeholder support, consider cost and resources, and foster continuous improvement (Institute of Educational Sciences, 2021). Through piloting, educators can assess the program's efficacy and determine whether the desired learning outcomes were met. By putting the program through a smaller-scale test, educators can collect insightful data and input from students, instructors, and administrators, empowering them to decide whether the program is viable and where it might benefit from improvements. During a pilot, there is a chance to spot any problems or roadblocks that might appear, such as technical problems and engagement issues. Piloting, also, enables educators/designers to evaluate various pedagogical approaches and instructional methodologies included in the program. It offers a chance to evaluate the effectiveness of these tactics in terms of student involvement, comprehension, and learning outcomes. To better meet the requirements of students, this feedback can be used to hone and enhance teaching strategies. Moreover, piloting does not only allow educators to identify how the program supports diverse learners, including students with different abilities, learning styles, or cultural backgrounds but also supports a culture of continuous improvement. It enables educators to draw lessons from the pilot phase, collect data based on evidence, and make defensible choices to improve the curriculum.

Piloting is especially very crucial in online learning (Burns, 2019) due to time, cost and effort invested in design, development and revisions of an online course are quite higher than an in-person course. Piloting an online course or training allow designers to investigate the effectiveness, usability, and functionality of the course from a broad user perspective.

The Erasmus+ project “Online Proctoring Manager – further education program for supporting digital transformation at HEIs” (PROWIDE) was carried out aiming at creating a profile of a new role for HEIs, Online Proctoring manager (OPM) as well as developing and testing an innovative



course to train OPMs. The training 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. In other words, the training was designed in a way to ensure competence-based learning approach as well as to be used in a hyflex mode. So the course included modules and learning units, each of which was targeting one competence or skill. Each learning unit included knowledge presentation (video and text), content comprehension activities (questions, assignments, etc.) and a learning unit quiz. Additionally, each module contained an introduction part and a proctored end of module test.

For the piloting of the OPM training, a guided-study approach was preferred to be able to get better insight about its effectiveness and appealing. At least one teacher from three partner HEIs served as facilitator and engaged with the participants in regularly planned synchronous and asynchronous activities. The facilitators also monitored the participants' progresses, and provided guidance and feedback in their own languages. For each country, a different discussion board area was provided into the training environment and the HEIs used their own web conferencing platforms to conduct synchronous sessions. At least 7 synchronous sessions (one for each module except of the module 8) were conducted.

The following sections of the manuscript reports the goal, method, instrumentation, results and conclusions of the evaluation of the piloting of the OPM Training.

2. Purpose and Research Questions

The main goal of this evaluation study is to test the effectiveness and engagement level of the OPM training, and get insight from main stakeholders (participants and facilitators) for its improvement. More specifically, the evaluation focused on examining the participants and facilitators' satisfaction with the content, materials, organization and implementation of the online training, and their perceptions towards the extent the training helped the learners acquire targeted skills. The evaluation study sought the answers of the following questions:

1. Did the participants find the training as effective and engaging?



2. Were the participants satisfied with the content, design, learning resources and activities of the training?
3. Did the participants think they have learnt in the training?
4. What did the participants think about the design, content and implementation of the training?
5. What did the facilitators think about the design, content and implementation of the training?

3. Method

A mixed method approach was employed in the evaluation study. More specifically, to collect data regarding the participants' evaluations, a convergent parallel design mixed method was used to collect both qualitative and quantitative data, while a phenomenological design helped us explore the facilitators' experiences in the training.

An online evaluation form "End of Training Evaluation Form" included close ended questions about the participants' satisfaction with the training and their perceptions of learning. The satisfaction items were adapted from Bayrak, Tıbı, & Altun (2020) and Schmeeckle (2003), and the items about perceived learning were taken and modified from Horzum, Demir, & Gongoren (2015) and Hiltz (1994). Other items or questions were developed according to the context of the training and the study. The survey instrument also covered several open ended questions concerning about the participants' satisfaction, perceived learning and other thoughts about the training. These questions helped us collect qualitative data. Filling out the online evaluation form was a mandatory activity embedded into the training (Module 9th). So, it was open until the end of the training (March 5, 2023).

The evaluation form was completed by a total of 24 participants, 12 of which were from Türkiye, 7 from Germany, 4 from Italy, and 1 from Austria (which was part of the trainees' group from Germany). The demographic information regarding the participants can be observed at Table 1. According to this information, 62.5% of the participants were female and 37.5% were male. The ages of the participants were mostly between 30-39 years (45.8%). Finally, the participants mostly declared that they were employed (79.2%).



Table 1. Demographics of the participants

Counties	N	%
Germany	7	29,2
Italy	4	16,7
Turkiye	12	50,0
Austria	1	4,2
Total	24	
Gender	N	
Female	15	62,5
Male	9	37,5
Other	-	
Age	N	
17-25	-	
26-29	4	16,7
30-39	11	45,8
40+	9	37,5
Employment		
Unemployed	-	-
Student	5	20,8
Employed	19	79,2

Although 24 participants filled out the form, only 17 completed all the requirements of the training and received certificates. Still, other 7 participants' responses were included into the analyses since they also provided understanding about the training. The pilot took place between 17 October 2022 and 5 March 2023. It was started with 90 participants but fully completed by those 17 participants.

A focus group interview was held on February 22nd, 2023 with the facilitators to be able to get insight about the training. The interview took 120 minutes with the participation of partner representatives (6 individuals) and facilitators (5 individuals). The focus group was planned to be completed into five rounds (introduction, design of the training, participants' perspectives, facilitators' perspectives, final words) but finished in three: After a quick introduction section, the guiding questions provided in Figure 1 asked to each of the participants.



Fig 1. The interview protocol

Round 1: Introduction

Please introduce yourself and give us a few information about how you did facilitate the training (number of participants and synchronous sessions, communication, support, etc.).

Round 2: About the design of the training

Could you share your evaluations about the:

1. Effectiveness of the course materials in terms of providing adequate knowledge base for OP?
2. Effectiveness and appeal of the learning activities to help the participants acquire skills targeted?
3. Organization, content and length of the training?

Round 3: Participant perspectives

Could you share your observations about:

1. The problems the participants faced and how they did solve those?
2. The parts (modules, activities, materials, etc.) the participants liked the most in the training?
3. The extent the participants learnt to use the PROCTORIO?

Round 4: Own experiences

Could you share:

1. Problems you faced and how did you solve or could not solve them?
2. Your ideas what to change or do differently if you asked to facilitate it again?
3. Your ideas to improve the training, especially as a self-paced course?

Round 5: Open Floor and wrap up

1. Do you think those participants who successfully completed this training can serve as an OPM in their institutions?
 2. What are the other things you would like to share with us?
-

The training was composed of eight major modules, which are divided into 27 learning units to promote bite-sized learning. The pilot training was designed as a fully online course with mostly asynchronous independent learning activities along with asynchronous sessions moderated by local facilitators. Each module covered an introduction, learning units in varying numbers based on the outcomes, and a proctored end of module test. Meanwhile each learning unit contained a short introduction, video lectures with associated texts, supplementary readings, discussion assignment, and a quiz. At the end of the training a wrap up module, including a proctored final exam and the evaluation form was also offered to the participants. More info



regarding the training can be found at the document entitled as the Curriculum of the training course Online Proctoring Manager, which is freely available at the PROWIDE website under <https://www.proctoring-manager.eu/results>.

4. Results

The reporting of the results were organized into four sections: First section summarized the participants' training completion levels. Second section focused on the results about how effective and engaging the participants found the training. Third section revealed the participants' satisfaction with the training in general as well as with training modules and units. This section also covered the results concerning the participants' perceptions of learning the online assessment and exam proctoring. Fourth and the final section provided the results of the focus group conducted with the facilitators to explore their evaluations of the training.

4.1. Completion and Retention

The analytics (logs) and the questions in the evaluation form provided a good insight about the participants actions regarding completion and retention in the training.

The logs have shown that 90 participants enrolled in the training but only 17 completed all the requirements and earned certificates. However, Figure 2 shows that only a small portion of the participants (N=16; 0% activity completion) did not do anything while a large number (N=48; between 0-29 activity completion) audited the whole training but did not complete the activities. Meanwhile a few of them moved beyond the auditing and completed at least one third of the activities (N=6; between 30-49 activity completion). And those who were dedicated since the beginning of the training completed at least half but actually more than two third of all the activities.

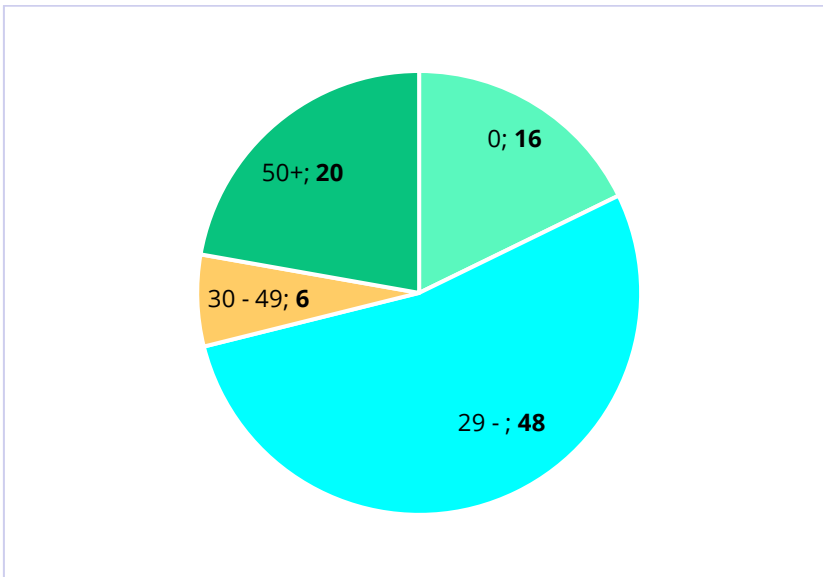


Fig 2. The number of participants completed the training in different percentages

Figure 3 reveals the numbers of total active participants and those who completed the activities in each module. As usual under online courses, during the first modules of the training, more participants were active and completed the activities but with time the numbers decreased. Also, the first four modules covered content more related to the OPM while others were more generic.

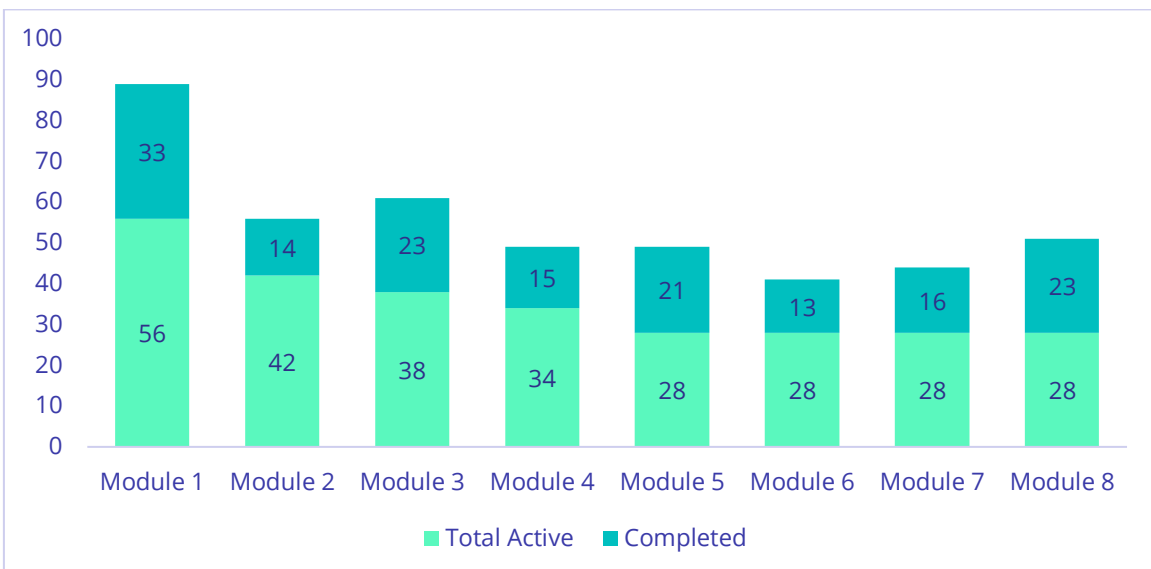


Fig 3. Total number of active and completed participants in each module



It was interesting to see the dedication of those who completed the whole training and earned certificates in Figure 4. As it can be drawn from the figure, those who completed the course took all the end of module tests and the Final Exam and scored quite high ($X=90,42$). This may be interpreted in a way that the training helped those who really would like to gain OPM competencies a lot to learn. Meanwhile, one of the final exam takers did fail to take and pass some of the end of module tests and so that he could not get a Training Completion Certificate but only certificates for module completion.

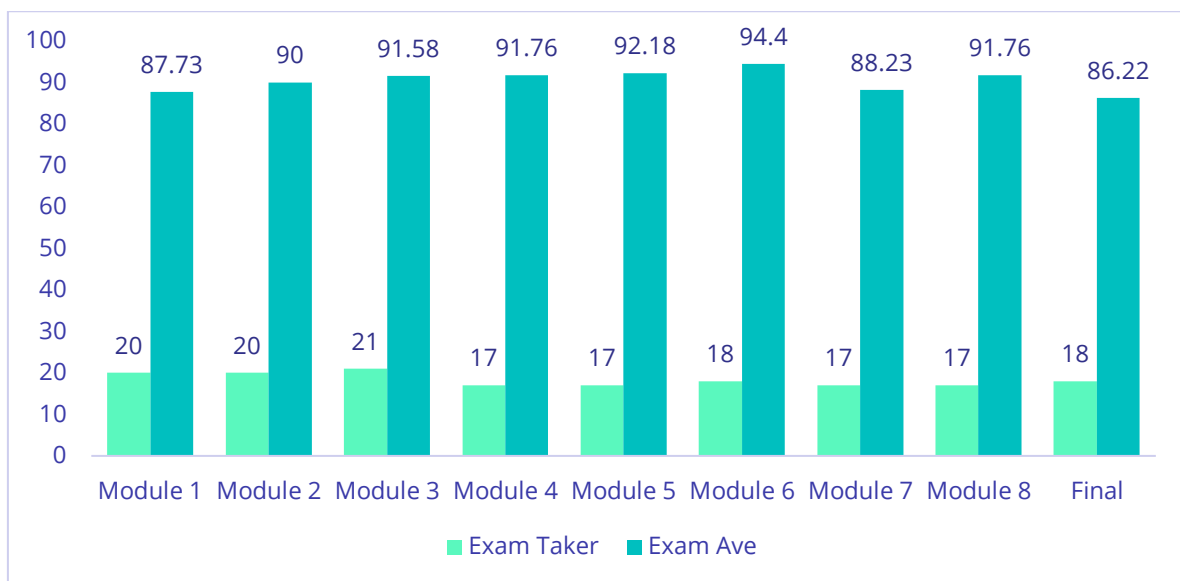


Fig 4. Total number of active and completed participants in each module

The self-report results accessed via the End of Training Evaluation Form supported the analytic results as can be seen in Figure 5. The figure shown that a great number of participants who filled out the survey also completed either all or a large part of the module activities in each module. The results also revealed that the activity completion decreased towards the end of the module. In the qualitative statements (responses to the open ended questions) of the participants about why they could not complete the modules, it was seen that **lack of time** (11 participants out of 24) was the primary reason. This was followed by the reason that the **module was not engaging enough** (7 participants out of 24). In addition, it was noteworthy that a few participants (3 out of 24) experienced systemic errors from time to time in the modules and could not complete the modules because they received errors related to timeout in some modules. Some participants (5 out



of 24) stated that they did not feel the need to complete the work discussion activities because they saw that other learners did not participate.

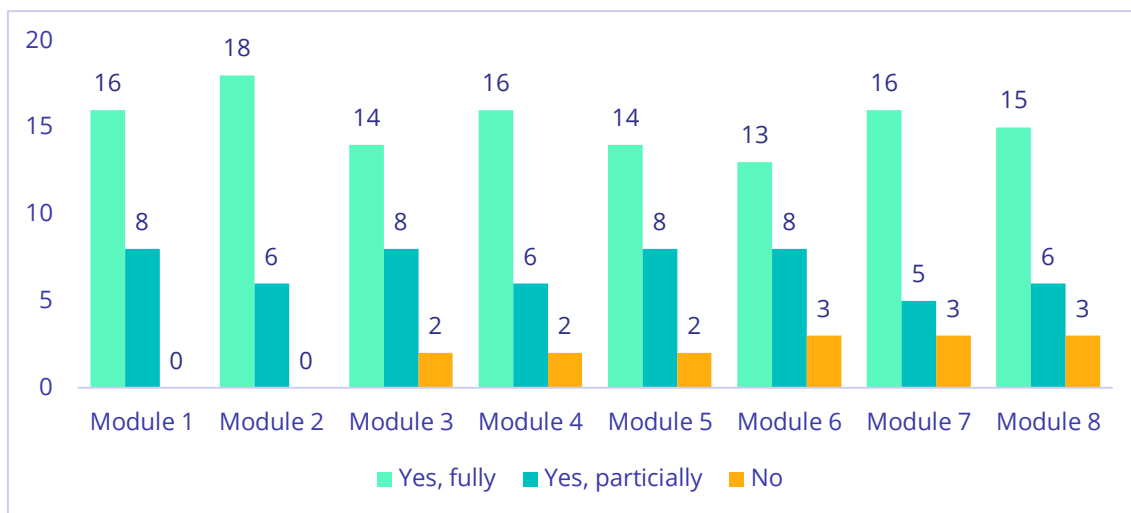


Fig 5. Self-report completion ratio of the participants in each module

One may easily infer that same as many other open online courses retention is an issue due to mainly the length (at least 8 or 9 weeks long) and heavy workload (25 hours of work in the first four modules and at least 12,5 in others) of the training. Since all the participants have job or school related duties it was a bit difficulty to allocate enough time and afford to complete the tasks in the training. However, a 15,5 percent (17 out of 90) of completion can be considered as a success compare to the 12.6% average completion rates in MOOCs (Jordan, 2015).

4.2. Effectiveness and Engagement (Appealing)

The findings on how the participants evaluated the modules in terms of **effectiveness** (the extent the module helped learners gain the knowledge and skills the module targeted) are shared in Table 2.

Table 2. Participants' evaluation of the modules in terms of effectiveness

Modules	Average (X)	Standard Deviation (SS)



Module 3: Technological Infrastructure for OP	4,32	0,95
Module 2: Role and Characteristics of Assessment Proctoring Systems	4,29	0,81
Module 1: Introduction to TB/ET and Assessment	4,29	0,75
Module 5: Conflict Management	4,29	0,64
Module 6: Project and Risk Management	4,24	0,83
Module 8: Personal and Social Skills	4,20	0,89
Module 4: Legal Frameworks	4,18	0,85
Module 7: Change Management	4,14	0,85

(1 = Not at all; 5 = Very effective)

Table 2 shown that the participants found all modules as effective, which means helped them achieve the targeted learning outcomes, since their responses averaged more than 4 out of 5. They particularly found the Module 3 Technological Infrastructure for Online Proctoring as the most effective module, while the Module 7 Change Management as the least effective. It was also very interesting to notice the responses regarding Module 4 Legal Frameworks in Online Proctoring. Since the legal frameworks all around the world are important to provide effective online proctoring, we as partners gave a special importance to this module. It might have been its heavy textual and legislative content that led the participants respond as one of the least effective modules.

Table 3 gives more details about the participants' perceptions regarding the effectiveness of the activities and resources presented in the units and modules.

Table 3. Participants' evaluation of activities and materials in terms of effectiveness

Activities and Resources	Average (X)	Standard Deviation (SS)
Final Exam	4,57	0,60
End of unit quizzes	4,46	0,66
End of module tests	4,45	0,74
Video lectures	4,29	1,00
Texts associated with video lectures	4,17	0,89
Module introduction	4,08	0,88
Unit introduction	4,00	1,06
Module introduction videos	4,00	1,06
Supporting materials	3,96	0,98



Reflection activities (discussions)	3,35	1,37
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(1 = Not at all; 5 = Very effective)

Since this training was about online assessment and particularly online proctored exams, it was understandable why the participants rated the exam related activities (final exam, end of module tests and the end of learning unit quizzes) higher than other activities and resources. Video lectures and associated short texts were also regarded as more effective than others. This can be related to the learning preferences of the participants and their shortage of time for other activities and resources. On the other hand, the discussion assignments were found the least effective. Since a number of participants did not actively take part in these activities and did not complete them, this response can be considered as reasonable.

The findings on how the participants evaluated the modules in terms of **engagement** (the level of encouragement to complete/participate in learning activities) are presented in Table 4. One of the noteworthy findings in this table is about the Module 4 Legal Frameworks. It seems the participants found this module as not only less effective but also less engaging than others. Meanwhile, the Module 3 Technological Infrastructure for Online Proctoring was one of the most effective ones but it seems it was not that appealing compared to others. It may be related to the shortage of technology skills or interests of the participants. The soft and personal development skills related modules attracted more interest, which might be associated with the fact that these skills can be used in different contexts rather than online proctoring management. However, since almost all the results are higher than 4 (of 5), it can easily be inferred that the training was in general found quite engaging by a large number of participants.

Table 4. Participants' evaluation of the modules in terms of engagement

Modules	Average (X)	Standard Deviation (SS)
Module 8: Personal and Social Skills	4,43	0,60
Module 7: Change Management	4,36	0,66
Module 5: Conflict Management	4,32	0,57
Module 1: Introduction to TB/ET and Assessment	4,29	0,69
Module 2: Role and Characteristics of Assessment Proctoring Systems	4,25	0,79
Module 6: Project and Risk Management	4,23	0,69



Module 3: Technological Infrastructure for OP	4,14	0,83
Module 4: Legal Frameworks	3,95	0,79

(1 = Not at all; 5 = Very effective)

Table 5 unveils findings about the participants' perceptions about the engagement levels of the activities and resources presented in the units and modules. A similar situation in these findings can be observed as the findings related to their effectiveness. In other words, same as the results about effectiveness, the participants particularly indicated higher engagement level for the activities related to exams, tests and quizzes and less for the discussion assignments.

Table 5. Participants' evaluation of activities and materials in terms of engagement

Activities and Resources	Average (X)	Standard Deviation (SS)
End of module tests	4,43	0,60
Final Exam	4,35	0,67
End of unit quizzes	4,29	0,69
Module introduction	4,13	0,80
Video lectures	4,12	1,08
Texts associated with video lectures	4,04	0,98
Supporting materials	4,00	0,91
Unit introduction	3,96	1,00
Module introduction videos	3,92	1,18
Reflection activities (discussions)	3,57	1,20

(1 = Not at all; 5 = Very effective)

In addition, the different sections of the evaluation form also included several questions to directly measure the participants' perceptions about the effectiveness and engagement level of the training. For instance, one of these questions asked the participants emphasize if they had concrete ideas (or knowledge and skills) in this training to use in their current or future online education offerings. A high level of agreement ($x=4,38$; $ss=0,71$) was observed. Another one was about how the training was encouraging to become an expert in online proctoring management, and a similar high agreement ($x=4,25$; $ss=0,90$) was observed. More importantly, a great majority of the participants ($N=18$; 75%) have answered the questions about



whether the higher education institutions should employ an online proctoring manager (Fig. 6). All these responses can be considered as the indicators for high impact of the training on the participants.

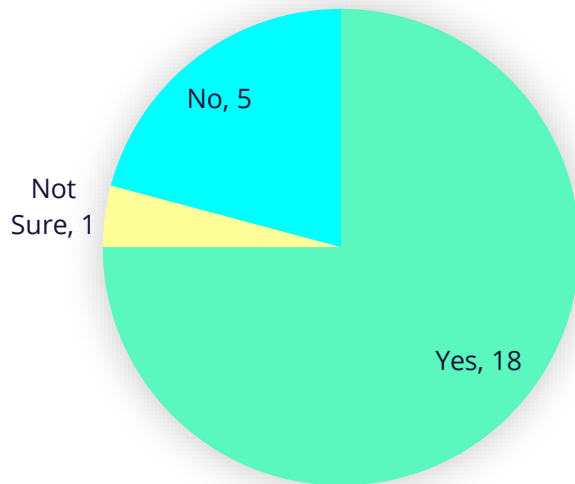


Fig 6. Responses to the question whether the higher education institutions should employ an online proctoring manager

The open ended questions allowed the participants emphasize their perceptions of and recommendation for improvement regarding the effectiveness and engagement of the training. Overall, the majority of the participants valued the training as quite effective, and indicated that it helped them learn and experience about online exam proctoring. Similarly, the participants thought of that the training was in general appealing one and grabbed their attention. Especially, the online synchronous meetings as well as the content helped them keep the interest live and encouraged the engagement.

Meanwhile the participants also stated several suggestions in order to increase the effectiveness and appealing of the training. First of all, especially the German participants indicated that rather than jumping into the online proctoring in the second module, there should be more activities about online learning and assessment prior to the module. A good number of the participants also noted the lack of interaction with the content. They thought of that if the content, especially the ones consist of heavy verbal information, was presented as interactive learning materials supported with some offline



enrichment assignments, it could have been more engaging. They also felt that more video lectures could have been offered in the learning units. Furthermore, some of the participants indicated their shortage of time to study and suggested lesser but more meaningful activities or tasks in order to increase their chance to complete all activities. Some also recommended integration of gamification into the modules.

4.3. Satisfaction and Perceived Learning

The survey results have shown that the participants have overall indicated higher **satisfaction** with the training. As it can be observed in Table 6, the participants rated average 4 (of 5) all three overall satisfaction questions. For these questions, the participants asked to choose a statement between 1 to 5 scale, 1 means Definitely NO and 5 means Definitely YES.

Table 6. Participants' satisfaction with the training overall

Items	Average (X)	Standard Deviation (SS)
Would you recommend this training to your friends/acquaintances/colleagues?	4,29	0,81
Overall, to what extent are you satisfied with the training?	4,04	0,91
Do you think that the training met your expectations and needs in general?	4,00	0,89
Would you like to participate similar training in online proctoring management?	3,96	1,04

1 - Definitely NO; 5 - Definitely YES

As can be observed in Table 7, the participants also rated different aspects of the organization of the training at quite satisfactory levels, ranging from 3,42 to 4,21 (out of 5). They were specifically satisfied with the clarity of the description of the training (objectives and organization) (x=4,21) as well as the instructions (x=4,13). The structure of the training and modules was also found rather satisfactory (x=4,08). On the other hand, it seems the least satisfactory component of the training was about the “mix of individual and



collaborative learning tasks". Although there was nothing about the learning tasks among the participants' comments to the open-ended questions, during the focus group with the facilitators it was mentioned that the participants hesitated to join the discussions and collaborate, and preferred to complete the tasks individually. The facilitators related this tendency with the other responsibilities of the participants, their shortage of time to study, and their learning habits.

Table 7. Participants' satisfaction with organization of the training

Items about satisfaction	Average (X)	Standard Deviation (SS)
The description of the training (objectives, organization, modalities) was clear enough	4,21	0,72
The supportive instructions were helpful	4,13	0,74
The training/module(s) was well-structured	4,08	0,72
The contents of the training/module(s) were aligned with the learning outcomes	4,04	0,62
Learning materials were of good quality	3,96	0,75
The duration of the training/module(s) was appropriate	3,96	0,75
Assessment task(s) were appropriate	3,79	1,02
The workload of the training/module(s) was appropriate	3,79	0,93
The answers/feedback provided by the instructor(s) were sufficient	3,71	0,91
The interactions with the instructor(s) and the other learners were relevant and fostered learning	3,71	0,96
There was an appropriate mix of individual and collaborative learning tasks	3,42	1,10

1 - Strongly Disagree; 5 - Strongly Agree

In terms of perceived learning, the participants asked to indicate their perceptions about how the training helped them develop a deep understanding regarding different areas of online assessment, online exam proctoring, and management of online assessment and proctoring in a Likert type question (Table 8). They were asked to choose an alternative that represented their perception. The results have clearly shown that participants had an important learning experience in the training. They



especially developed a good understanding about online exam proctoring ($x=4,29$) and technological infrastructure for online education and assessment ($x=4,13$). Although it is still higher than expected learning level (3), the participants indicated that they had lesser experience in legal frameworks about online assessment and proctoring in different regions ($x=3,83$).

Table 8. Participants' perceptions about developing an understanding regarding different areas of online assessment and exam proctoring

Areas	Average (X)	Standard Deviation (SS)
Online exam proctoring	4,29	0,75
Technical infrastructure for online distance education and online proctoring	4,13	0,80
Management of online proctoring	4,08	0,72
Management of online assessment	4,00	0,78
Technology based and enhanced learning	4,00	0,66
Assessment in online distance education	3,96	0,69
Managing crisis, conflicts, resources in online assessment	3,92	0,78
Legal frameworks regarding online assessment in various regions	3,83	0,76

1= Not at all; 5=Very much

The participants also directedly asked to indicate If they think this training helped them have a good experience in online proctoring. Their answers averaged 4,38 out of 5 ($SS=0,58$). So, this score can also be considered as an indicator of high level of perceived learning with the training.

Additionally, the participants also allowed to share their perceptions of learning specifically about the online exam proctoring (particularly about PROCTORIO). Table 9 covers the results about these perceptions. The participants strongly believed in that they gained a good experience in online proctoring during the training as students ($x=4,33$). It is interesting to notice that their perceived learning levels regarding the items related to the online proctoring management are not that high, although they are also higher ($x=3,96$ for all these items) than expected level ($x=3$). So, one easily can infer



that the training helped the participants gain a good experience about being a student in online proctored exams and also quite an understanding in integration of online proctoring tools into exams, reading the results of recorded proctoring processes.

The participants' responses to the open ended question regarding PROCTORIO also shown that they found the tool as easy, effective and satisfactory. Some, especially from Turkiye mentioned that, they were expecting a more complicated tool for online proctoring but PROCTORIO was an easy to use one, which did not require advanced technology skills. However, they felt that they needed more hands-on experience in setting up and managing the tool. So, they suggested a special learning unit focusing on setting up PROCTORIO.

Table 9. Participants' perceptions about developing an understanding regarding online proctoring

Items	Average (X)	Standard Deviation (SS)
I had a good experience about being a student in a proctored online exam	4,33	0,70
Overall I found the using the PROCTORIO in online exams as easy	3,96	1,08
It is easy to understand the report (Grade Book) created in a proctored exam	3,96	0,91
Integrating the PROCTORIO into online exams sounded as an easy process	3,96	1,04

1 - Strongly Disagree; 5 - Strongly Agree

4.4. Facilitators' Experiences

In order to get better insight about the participants' reflections and explore the facilitators' experiences, a two-hour long focus group meeting was organized. The followings are the summary of the analysis of the data collected during this focus group.

The facilitators collectively conveyed their positive assessment of the effectiveness of the facilitation process, encompassing various aspects such



as participant numbers, synchronous sessions, communication, and support, among others. Despite this consensus, it was evident that the facilitators shared a common sentiment at the outset of the process, wherein they experienced a degree of apprehension due to their first-time role as facilitators in this specific context and due to their concern about potentially encountering challenges in providing comprehensive responses to detailed inquiries posed by program participants. Throughout the course, the facilitators reported instances where learners sought further elaboration and clarifications on specific topics. Since the facilitators were not theoretical experts in this particular field, they encountered difficulties in fully satisfying these informational demands. To address these situations, the facilitators resorted to conducting online research and studying relevant materials to aid in supporting the participants and addressing their queries. Two of the facilitators stated that as most of the participants in the program consisted of academic staff or people working full-time jobs, there were time constraints for students which hindered them from finding adequate time to complete the learning activities thoroughly. Two of the facilitators stated although they had some technical difficulties using the system at first, they managed to use the different functions or tools of the system in a short time. The facilitators all agreed on the idea that having participants from different universities, institutions and backgrounds was an advantage and it enabled the process and especially the discussions to be fruitful for everyone joining the program. They also agreed on the idea that before implementing the program, all the facilitators should take this course as students and understand every detail and anticipate the problems they may face as facilitators.

Regarding the effectiveness of the course materials and learning activities as well as the organization, content and the length of the training, all facilitators expressed overall satisfaction with the materials and activities in the program and the organization, length and content of the program. All facilitators mentioned that they found the videos and discussion activities really effective and engaging. However, two of the facilitators, as a result of the feedback they received from the participants and their observations during the process, stated that the content, especially in the first modules, should be enriched to include basic information, and that more content on basic topics about online exams and online assessment systems would be beneficial for the participants. At the same time, they also noted that diversifying the evaluation elements used in the program could be valuable in terms of increasing the motivation of the participants. Regarding the learning activities, all facilitators stated that the participants did not show enough interest in the non-compulsory reflection and peer assessment



activities and that these activities could be improved or redesigned especially for the formal version of this program.

Regarding the problems faced by the participants and the facilitators, two of the facilitators suggested either reducing the number of the activities or providing more flexibility to the participants as they had existing commitments to accommodate and they had difficulty in finding enough time to complete the tasks. Another facilitator also added that increasing the number of hands-on activities could be more useful for the participants to discover different aspects of online proctoring and the use of PROCTORIO. All the facilitators stated some technological problems caused participants not to access certain tasks and these should be improved. As reported by one of the facilitators in the German context, certain students demonstrated a tendency to exclusively participate in either the synchronous sessions or engage solely with the asynchronous activities, neglecting the other component. The facilitators agreed that enhancing flexibility in the course structure could serve as a potential remedy to address the time constraints faced by the participants. Furthermore, it was a consensus among all facilitators that the duration of the course might be considered long and the content might appear intense for an informal course focused on online proctoring. This observation reflects a shared view on the need to strike a more balanced approach in terms of course length and content intensity to optimize the learning experience for the participants.

Based on the feedback received from the participants concerning PROCTORIO, it was evident that, aside from minor technical issues such as forgotten passwords, the participants had a positive experience with the software, and the majority of the program proceeded without major issues. Nevertheless, a consensus among the participants was observed, emphasizing the necessity for more practical, hands-on activities specifically focused on using and experimenting with the PROCTORIO software. They believed that such opportunities were essential for them to develop the required proficiency to effectively manage online proctoring tasks upon completion of the course.

5. Conclusions and Implications

The main goal of this evaluation study was to test the effectiveness and engagement level of the OPM training, and to get insight from main



stakeholders (participants and facilitators) for its improvement. More specifically, the evaluation focused on satisfaction and examining the participants and facilitators' satisfaction with the content, materials, organization and implementation of the online training, and their perceptions towards the extent the training helped the learners acquire targeted skills. During the study the answers of the following questions were sought:

1. Did the participants find the training as effective and engaging?
2. Were the participants satisfied with the content, design, learning resources and activities of the training?
3. Did the participants think they have learnt in the training?
4. What did the participants think about the design, content and implementation of the training?
5. What did the facilitators think about the design, content and implementation of the training?

An online evaluation form embedded into the training helped collect data from the participants while a focus group interview meeting were used to get the facilitators' reflections. Additionally the system logs provided insight about the completion ratio. The results have shown that same as many other open online courses, retention was an issue due to mainly the length (at least 8 or 9 weeks long) and heavy workload (at least 150 hours) of the training. Since all the participants had job or school related duties it was a bit difficult to allocate enough time and afford to complete the tasks in the training. However, a 15,5 percent of completion regarded as a success compare to the 12.6% average completion rates in open online courses.

The quantitative and qualitative results have also revealed a higher level of impact on the participants. The participants clearly indicated that the training helped them develop a deep understanding about online assessment and exam proctoring. The majority of the participants valued the training as quite effective and indicated that it helped them learn and experience about online proctoring. They also considered the training as an engaging one, grabbed their attention, and kept the interest live. The participants especially found exam related activities (final exam, end of module tests and the end of learning unit quizzes) more effective and engaging than others. The reflection activities (discussions), however, were found a bit less effective and engaging.

Similar to effectiveness and engagement, the participants also indicated high level of satisfaction in the training. Although they expressed their high level



satisfaction with almost all the components of the training, they were more satisfied with the clarity of the description of the learning process and the instructions. Structure of the modules was also found highly satisfying. The participants had an important learning experience in the training. They especially developed a good understanding about online exam proctoring and technological infrastructure for online education and assessment.

Furthermore, the proctoring tool, namely PROCTORIO, was also considered as an easy, effective and satisfactory one. Some participants clearly mentioned that they were expecting a more complicated tool for online proctoring but PROCTORIO is a easy to use one, which did not require advance technology skills. However, they felt that they needed more hands-on experience in setting up and managing the tool during the training.

The facilitators also expressed their positive remarks about the design, resources and implementation of the training. Meanwhile they also shared that in order to improve the training, more elaboration on online learning and assessment should be added to the frontmost modules, the evaluation elements used in the program can be diversified to increase the motivation of the participants, peer-learning/discussion activities must be revised to make more meaningful for the learners especially in formal education context, enhancing flexibility in the training structure should be ensured to address the time constraints faced by the participants, more hands-on activities should be added about setting up and testing the PROCTORIO. Meanwhile, the facilitators' observations about the participants satisfaction with the PROCTORIO supported the results obtained from the participants via the evaluation form. In other words, the participants did not have any problem with using PROCTORIO, enjoyed learning about it, and had a positive experience. The facilitators, on the other hand, reported that since it was their first experience in online exam proctoring, they had some challenges in providing enough guidance and feedback to the participants. They often had to conduct research and study relevant materials to aid in supporting the participants and addressing their queries.

In sum, the results have shown that the training was an effective and engaging one despite a few needed revisions. It was not only a satisfying course but also really helped the participants gain the targeted competencies. However, it needs some revisions for sustainability, such as (1) transforming the training into a self-paced mode for non-formal learners by removing the peer learning/discussion activities, (2) providing flexibility to use the content and the training itself in different implementation models



(e.g. hybrid or blended course, a MOOC, etc.), (3) allowing the individuals choose the content and structure of the training to study, (4) adding more interactive learning resources that promote content-to-learner interaction.

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