



onTrain

Online Training, the treasure within

C. Course design
8. Systems for evaluation and
monitoring

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Let's start



In this unit we focus on the evaluation and monitoring of the teaching-learning process and the eLearning platform itself with the main purpose to improve quality.

If you are more interested on the evaluation of the learner skills and competences acquired you should go to the methods for assessment unit. We will propose here a some clues for the evaluation at an organisational, tool and activity level. The most important aspect here is that you learn to incorporate your own indicators or metrics more adequate to your own institution. Those will help to increase the recognition, accreditation and also improve the quality of the educational activity itself.

What am I learning here and why?

It is crucial to be able to monitor and evaluate the learning environment and how effective is the online learning process. It will allow not only to measure the quality of the educational process but also to take better informed decisions and improve it. We will provide you some indicators and metrics that will help on this process, also some suggestions about evaluation methods. We do not aim to propose you too many formal methods, but something that you could use and take advantage of.

What content will I find here?

We will present here qualitative and quantitative evaluation methods in a general evaluation and monitoring procedures that will help to increase the quality of your educational programme. We will show you how to create indicators that will help you to create metrics to create a quality system, the advantages and disadvantages of internal and external evaluation and some examples of questions as the main way to get information and how it could be useful to your organization.

Introduction on evaluation and monitoring



Quality assessment should always be present in any educational activity at a different level depending on the formality of the studies. Only by including a process for this purpose it will be possible to recognise our lacks and keep improving in future editions of the course, promote the recognition of the studies and award the impact reached to third parties. Also, this process is very useful for the trainer, as it is a good opportunity to keep learning, and the organisations, to know to which extend their aims are reached. We want to know not only if the aims of the course have been reached, but also what went well and what went wrong.

What do you aim? assess or evaluate? assessment is to increase quality, evaluation is to judge quality. First aims to be positive by providing feedback, it is continuous and requires the creation of the assessment procedure (criteria, indicators, aims), a development (that is control understood from a point of view of monitoring) and a closure (where conclusions are delivered). We are not going to cover evaluation in this unit, but have a lot of similarities; evaluation requires a criteria, measures and also are evidence-based, so in some way, if you plan adequately, your assessment could be used also as evaluation process.

Even if you aim only to evaluate, once you do the effort of performing a quality procedure, try also to be positive and provide feedback, it will not only support your evaluation but also help to improve and develop the organisation and staff, while at the same time, promote a positive perception of the usability of the quality procedure and get support and collaboration from the involved people.

Need of the evaluation

Systems should be continuously evaluated, there are a lot of things that could be monitored and improved; processes, tools, people, etc. Furthermore we need to know to which extend the organisation aims are being reached and also which things can be improved. Sometimes that need is internal (motivated by the own organization) or external (because of need of accreditation or external recognition). When it is motivated by internal needs it can be more flexible or even informal. When the evaluation is done because we need to provide a proof to third parties about the effectiveness or quality of our system, then we need some formalities. Later you will learn about some procedures that would add that needed formality, meanwhile we want to point out which would be the difference on online education:

- People tend to trust and believe what is written, or what appears on photos, and it really makes a difference if you are performing an internal or external based evaluation. Signature list, exams, exercises in a form of paper does not exist on virtual teaching. Even so, still it you can obtain proof of what is happening: system logs, activities successfully finished by your learners, virtual assessment of your learners, etc. The difficult here would be that some of those procedures are not so validated in online procedures than face-to-face procedure, one example is to ensure that learners have acquired the necessary competences and skills. If your evaluation is external, then be prepared also to guarantee that the method you are using for evaluation has also external validity.
- When using online tools, compared to face-to-face, it could affect privacy of the people as you can monitor and check a huge quantity of parameters, as for example which time and from which computer was a person connected to your online platform. If you have to show the results of your evaluation, be careful and show only aggregated information. Also you would need to gather the consent for your users.
- Stats of your eLearning platform will be the main source of information (number of students, time connected, number of messages post) but that information will be quantitative, and it does not show the quality of the learning process, or the quality

of the learning platform. Therefore, be ready also to gather information by the way of questionnaires. It is very common in face-to-face education to deliver survey to the learners to ask about the trainer (if the trainer was answering the questions, was respectful, etc.) and about the course itself (organisation, content, etc.). In online learning you should also ask about the methodology but with one huge difficulty; that methodology rely on the technical capacity of the student and technological resources (as the computer or broadband). You should ask the learner how the course went from both perspectives.

- Trainers, tutors, and staff can also provide useful information about how the learning process went. You will be able to gather information about their satisfaction, but more important, how they felt and think that for next editions, course could be improved



Example:

At the end of this unit you will find an example of a survey already used in the Senior Citizens' University after the COVID-19 scenario where all the face-to-face teaching had to move to virtuality, therefore, a varied of ICT-competent learners had no other option to be online learners.

External and internal guided assessment

The methodology proposed here, considers two different assessment approaches: internal evaluation and external evaluation. Those present some differences and the choice of a particular type of method will depend on the institution interests. Following are the two above-mentioned possibilities:

- Internal assessment. It is carried out by (internal) managers, technicians or teachers who want to know whether they are working in the right way to increase their learners' quality of learning, or who are curious to find out what options are available. Therefore, internal evaluation does not present an strict methodology.
- External assessment. In this case, a person outside the institution with experience in the target group the institution is addressed to, should apply the evaluation methodology to provide a final score and give recommendations.

An internal evaluation then, mainly has the purpose to just monitor, and if possible, improve certain evaluable aspects of the institution. On the other hand, an external evaluation is more complex and it usually is carried out when searching not only improvement but also recognition. This is because it gives visibility to the institution and certifies its quality. In this methodology, the external professional must meet some requirements: experience in

evaluation processes and familiarised with the group target and the indicators of the evaluation tool.

However, both internal and external assessment aim to provide recommendations to improve the quality of educational institutions and it is important to choose either one or the two approaches presented.

Indicators; building the criteria for assessment

” The system presented is based on the recognition and identification of quality indicators (QI). We must take into account that the quality indicators must be identified according to the aims of the institution and the target source to be addressed. The indicators can also be divided into several dimensions such as educational, management, technical, pedagogical, etc. Nonetheless, all the selected indicators must follow a formal structure, here a suggestion:

- Identification number: a number to differentiate and separate each case.
- Title: A single descriptive sentence.
- Source: Proposed sources to gathering evidence.
- Educational dimension: One or several of the above-mentioned dimensions in which an institution has control and power to act.
- Justification: Description of the indicator, an explanation about why it must be considered and its relationship with the organisation aims or strategy.
- Proof or evidence: how the evaluator can check that the indicator requirements are met.
- Recommendations: Suggestions or comments in case the criteria required for this indicator is not completely fulfilled. That is general, but helps the evaluator when providing a more context-based feedback.



Each indicator must provide recommendations and advice based on the specific aims, target and social context of the institution, to improve the most fragile aspects of the evaluated institution.

There are many indicators that are already automatic. The number of quantitative data options is wide, so we better chose the ones that are rather useful for us. The number of accesses per student, feedback given in activities, questionnaire, etc. On the contrary, qualitative indicators aren't unconscious, so we must select them and ask the learners to know their opinion about it. An example would be the one showed in the following table:

Sample of a quality indicator chart (inspired from:

<http://www.edusenior.eu/data/outcomes/wp5/EduSenior-toolkit.pdf>)

Title	Accessibility
Source	Senior learners
Education dimensions	Virtual learning platform
Justification	Accessibility is a key issue in the provision of education for seniors. They must feel comfortable, and disabled people must also be motivated to learn. Learning environment must be easy to access and use.
Requirements	The fonts, colours and general design of the materials delivered, presented or displayed are access-friendly. The virtual environment and the communal areas are accessible, resources are easy to find.
Recommendations	Update the website interface taking into account the appropriate accessibility rules. Make all appropriate instructions and training on how to use the learning platform for staff and users.

Example:

The main source of the previous example indicator can be qualitative and quantitative, for example

- Ask the learners in a scale from 1 to 7 where 1 is completely disagree and 7 completely agree: the environment has been easy to use and I felt comfortable
- Ask the learner in a focus groups (small interviews) which difficulties they found when using the eLearning environment.

The subjective perception of the student and trainer

First of all, we should have a criteria to evaluate the training-learning process in an online environment, the main source of the information will be the following: The subjective perception of the student and trainer.

Being a virtual classroom, a community with high social components, a good approach for considering evaluation would be the subjective perception of the student and trainer, that would include what they think about the environment and tools available, how easy was to manage it and also how they felt. This can be a qualitative questionnaire with some questions

we suggest later. We are conscious that in this evaluation it is difficult to separate to which extend the use of a tool in the online environment has been fruitful, useful or easy mostly because the tool is applied in a learning activity. Therefore, it has a context that is difficult to be separated, and we should have in mind that it must be considered both; that is the tool (or the environment) and the educational activity. A student can claim to have had a bad experience when doing an activity online, and we should try to separate if it has been because the course content is too difficult, the online environment is not friendly at all, the trainer has not been able to provide enough support or because the students have been spending less time than expected.

The main way to get the proper information about what is happening is not to consider the qualitative data isolated, but to add other kinds of information, we will summarise that in following units.

 **Examples:**

Here there are included some control questions. Those will help to know if the difficulties learners had to face while using the platform were caused because of lack of time, skills or interest.

Questions
Is this your first experience learning online? What did you think before the course? which were your expectations about learning online?
On average, how much time per week did you use to spend on the online platform?
Did you find the online environment easy?

Learners' experience

Question	Scale: 1 disagree, 3 neutral, 5 agree
Generally speaking, I have learned and now I manage well in the virtual classroom; I can come in and find what I want at the moment.	
My technological skills have improved	
Once I have learned them, I have been able to use the different tools in a comfortable way (forums, tasks, opening contents...).	

Logs and Statistics

The advantage of an online environment is that each interaction with the learner keeps recorded, so if the platform has the capability, we can get the following information:

Stats	
The student has been reading / watching the learning materials	
Replies/comments done to the other colleagues	

In the recent years, it has been very common the use of learning analytics, that is the capability of the learning environment to provide not only statistical data about the learners' access, documents views or replies, but also a more comprehensive and elaborated data. This data is capable to provide clues about the learner's behaviour either individually or as a group. For example, by linking the relevance of the learners' actions and not only their participation. Other systems as keywords finding by topics (to find the most elaborated messages) and on the other side, it can also help to find plagiarism.

The online learning environments, as those are database processing based systems, it allows to include analytics (aggregated data) and big data processes to help trainer (or manager) to get a general overview of what is happening to reach better decisions.

Process

Question	Scale: 1 disagree, 3 neutral, 5 agree
I've learned from my classmates	
I have felt accompanied and supported enough	
Communication has been fluent and comfortable	
I was able to contribute new ideas, information and points of view.	
Group work (forums or other tasks) has been rewarding	
In general I have felt comfortable when I have studied/learned online	
I have enjoyed the way I learn online and will re-enroll in an online course.	

About the course itself

Question	Scale: 1 disagree, 3 neutral, 5 agree
My expectations have been met	
The overall organization of the course has been good	
The teacher's attention and help has been good.	
The materials and resources available have been adequate	
In general I have enjoyed the subject matter of the course	
If I liked the subject, I would sign up again for an online course without hesitation.	

 **Exercises**

Any kind of learning process where a teacher is involved continuously and has a teaching plan, for example: any online course. Each institution can add the priorities or their own aims. In this exercise we apply the interviews.

Exercise 1:



You will find here a set of questions related to the course you are participating in. Based on your knowledge and the development of the current online course, what is your opinion about the adequacy of it? Answer the following questions and rank them from 1 (disagree) to 5 (agree).

Question	Scale: 1 disagree, 3 neutral, 5 agree
The course structure was arranged in a logical way.	
I liked the material used in the course.	
I think the amount of assignments was fair.	
The course activities help me to acquire knowledge	
Group work has been rewarding	

I have enjoyed taking part in an online course.	
The amount of time spent in that course was reasonable.	
The amount of opportunities for interactive learning was appropriate.	
I am willing to take another online course.	

Exercise 2:



Considering the importance of submitting for evaluation your courses, reflect and define which would be the indicators that would be useful to assess your course. What quality indicators would you include? Please, fill in all the field areas that are required in the tables below.

Title	
Source	
Education dimensions	
Justification	
Requirements	
Recommendations	

Title	
Source	
Education dimensions	
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Requirements	
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Title	
Source	

Education dimensions	
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Recommendations	

Summary



In this section you have learnt how to properly monitor and evaluate the quality of your online course. Such evaluation can be carried out from an external source (a professional who is familiarised with the environment and the target group comes to assess us) or from an internal source (one person of the team evaluates us).

Sources and Bibliography

Evaluation toolkit for educational institutions. Increasing Impact on Senior learners' Quality of Life. Pilar Escuder-Mollón, Salvador Cabedo. 2014

Quality Eduseniior (Toolkit): www.eduseniior.eu