



onTrain

Online Training, the treasure within

## C. Course design

### 3. Development of user-centered course design

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## Let's start



The Development of user-centered course design focuses on the users and their needs in each phase of the design process. The design process will perform the research and will have in consideration the needs, requirements, restrictions and other issues to create high quality and accessible products for the learners, with a higher impact and satisfaction.

### What am I learning here and why?

In this lesson we will guide you to better design your course in terms of content (that is the subject to be taught) and the tools (those are the learning activities you will offer in your own course). So, you will be able to design content according to the needs of the learners and how to present and develop it. Those are adaptable to the learners' needs, but from the other side, they should also fulfil other requirements such as the basics of technology.

### What content will I find here?

Learners are able to identify the specific needs and requirements of the target group and can develop the content accordingly. Also, to prepare user-centered content and discover different design possibilities in online environments, for example: media, activities, content-delivery methods, qualifications, feedback, open spaces for discussion, etc. The learners can design appealing and interactive content as well as be tailored to the needs of online learners. Maybe the learners need to think about key features of user-centered design.

## The Development of user-centered course design



The direct engagement with users, it would be presented taking into account research and understanding of the context. It will be different for each student, although all of them are in the same course, so we need to adapt to their context. You will have students living in the city, others in towns and others could even be in small villages whose population do not exceed 300 inhabitants. The next important thing is the interaction, they need to be in contact to carry out the activities of the course. Thus, the methodology is essential and defining when it comes to designing a course, let's study this then.

## Methodology about Development of user-centered course design

” This section explores the methodology, separating it in three parts. Firstly, you will find a questionnaire about the content, secondly, another questionnaire about technology, and finally one about collaborative learning. There you will find questions about different approaches.

### Course-topic interests

” This questionnaire will explore the learners' preferences when it comes to subject topics. Their interests will be taken into account and set as the backbone of the course.

Would you be interested, in general, in participating in an online course?

If yes, which are the topics that interest you the most?

(Feel free to tick more than one option, and even to suggest other options).

- Humanities, social sciences
  - Philosophy
  - Psychology, personal development
  - Sociology
  - Seniors in today's society
  - Ethics and politics
- Arts and History
  - Ancient art
  - Contemporary art
  
  - Ancient history
  - Modern history
  - Music education
  - Cinema, literature, media discussion
  - Europe: significance, history and culture
- Economy
  - Economics, current affairs, media insights
  - Saving and investment in households
  - Citizens' rights and duties
  - Healthy lifestyle and physical activity

- Health and wellbeing
  - psycho-social changes of the elderly
  - Stress, emotions and wellbeing
  - new roles and structure of the family
  
- Sciences
  - Astronomy
  - General science and technology
  
- Technology
  - Computer tools, Internet services
  - Collaborative and creative tools
  - Social networks
  - Changes of the information and knowledge society
  
- Personal development
  - Genealogy
  - Writing workshop

Feel free to suggest or add any other topic you would like to learn.

## Users' technology capacities and interests

This questionnaire attempts to explore learners' technological capabilities. It will be helpful to analyse their feelings and sensations towards the use of technology.

### Level of use of ICT

	Are you interested in...?				
	Don't know	Yes	Yes, more!	Enough	No

Meaning:	I do not know what it is	I do not use, but I have heard about it  I would like to know more	I have basic skills and would like to increase them.	I already use it or know how to use it. I don't wish further training.	I am not interested in this specific skill.
<b>General information seeking</b>					
Surfing on the web (general browsing)					
Information browser engine (such as Google, bing)					
To read/see videos/audio, news, reports, etc. on the web (as Youtube, podcasts, videocasts or reading other websites).					
<b>Communication</b>					
Email					
Skype (or instant chatting)					
Facebook					
Twitter					
Google+					

<b>Services</b>					
Access my bank account					
Shop or buy online (train tickets, airplanes tickets, books, etc)					
Play games					
<b>Creativity</b>					
Write texts (using word processors)					
Organise photos (using albums)					
Uploading photos (in on-line albums) and sharing with friends					
Writing in a website to give opinion or provide feedback (website or blogs)					
Writing to give support (in forums or question-answers places)					
Self-directed writing, (I own a blog or I write in a Wiki)					
<b>Advanced services</b>					

Management and productivity (calendar, tasks, contacts).					
Cloud services (iCloud, Dropbox, Drive, SkyDrive)					
Domotics (control other devices of my house)					
	?	Yes	Yes, more!	Enough	No

Which other things would you like to do with your computer or would you like to know/do better?

As you can see in the previous questionnaire, we do not only ask what the learner is capable of in terms of technology, but we also address their interests. That is useful because a high interest in a certain topic can cause even not skilled adults to eagerly adopt the technology proposed.

## Soft skills capacities and interests

This questionnaire attempts to measure not only the technological competences of the learner but also to address some soft skills preferences.

Following you will find some questions and you need to answer them ranking those questions from 1 (completely disagree) to 5 (strongly agree).

1. I am interested in working collaboratively with my course mates.

Strongly agree	Agree	Neutral	Disagree	Completely disagree
2. I prefer the tasks that are individual.				
Strongly agree	Agree	Neutral	Disagree	Completely disagree
3. I like using new technologies in my daily life.				
Strongly agree	Agree	Neutral	Disagree	Completely disagree
4. I feel comfortable using the PC to take courses.				
Strongly agree	Agree	Neutral	Disagree	Completely disagree
5. I feel comfortable exposing my opinion in forums which involve a wide number of participants.				
Strongly agree	Agree	Neutral	Disagree	Completely disagree
6. I like communicating with my course mates to sort out problems related to the course content.				
Strongly agree	Agree	Neutral	Disagree	Completely disagree
7. I take responsibility for my mistakes and proactively work to fix them.				
Strongly agree	Agree	Neutral	Disagree	Completely disagree
8. When working in a team, I draw strengths of each individual for the good of the team.				
Strongly agree	Agree	Neutral	Disagree	Completely disagree

9. I like giving feedback to others to help them improve.				
Strongly agree	Agree	Neutral	Disagree	Completely disagree
10. I am willing to try new things and challenges.				
Strongly agree	Agree	Neutral	Disagree	Completely disagree



These types of questionnaires allow us to measure soft skills – not just content, autonomy, capabilities. Regarding the autonomous way of working, if they like it or they don't like anything, if they hate it, if it was successful, etc.

## From better knowing the learner to course design

The user-centered approach is aimed to design a successful and adequate course. The three previous questionnaires are aimed to better know the interests and motivation of the learner but following we will explore some considerations that are related to this design of the course.

The user-centered design approach should also be tuned to meet the capacities of the organisation and the strategic aims of the institution. Therefore, the user-centered design should be understood as something that helps you to design the course, not as a static rule. Also, the trainer capacities should be taken into account, not only when establishing the topic of the course, but also the teaching methodologies. In this sense, the user-centered design could be then used to know the needs of the trainers, to offer them training courses and improve their skills on the digital teaching. This is the most beneficial approach in a win-win scenario, as trainers will learn about technology-mediated education that will immediately apply to their courses.

The easiest questionnaires are the ones related to the course topics and to hard skills (that are the ICT-based skills). The ones related to soft skills are more complex to assess and design. As an example, a history course can be easily understandable, but instead it is more complex to design and apply a collaborative activity. A lot of questions arise during the process of the activity. In this sense, take a look on the other topics of this course-guide, mostly related to experiential learning and blended learning. Start easily and increase interactivity and virtuality of the activity as learners and trainers gain confidence.

In case of a high uncertainty because of certain conditions you cannot control or the inexperience of the staff working with new tools or methods, it is good to build a small group of technology-eager learners. That would be the early adopters, knowing that their mission is

not only to learn (as it could be in an ordinary course) but to provide help and feedback to the trainer and organisation. The interests and motivation of learners can be easily obtained (thanks to the previous questionnaires) but only when a course design and you apply the course and methods you can then observe how the dynamics of the course are developing, and then assess how methods are adopted by the users. In this case, you establish formal processes for gathering their needs and motivation, we propose the focus groups, described in the next section.



The last suggestion would be to add more questions about the topics your organisation can offer, the hard skills and soft skills. Previous questionnaires are provided as examples.

## Qualitative data: focus groups

Apart from the questionnaires described before as the main quantitative method to gather the interests and motivations of your learner, we propose to take some of the participants and build focus groups.

Focus groups are a qualitative method to gather information on certain topics. In this chapter context, it is composed by 6-12 participants that are able to discuss and provide their point of view on the topics that are provided to the researcher (in our case it could be the trainer). The starting point of the discussion could be to try to answer one by one the questionnaires as a group, providing freedom to offer suggestions and to ask more questions. The questionnaires, therefore should be considered as a guide and to start the dynamics of the discussion, and those also must be flexible to get a better understanding of the main issues; the user needs and interests, what they are expecting and to which level they enjoy, or stress by using technology. Focus groups performed before the course the course design help to better plan the course and the activities; use them in the middle and at the end of the course for a better future course design.



## Exercises

Based on concepts seen during this unit, here we propose some exercises that you can try. Such exercises can be later modified and further applied to design your online courses and better align and adapt the preferences of the learners with the content of your course.

## Exercise 1: Technology-based questionnaire



It is proposed to give questionnaires to see how you feel when answering. Thus, depending on this, they can prepare for the students of the course.

### **Participants with ICT Experience:**

Which are obstacles/ difficulties when using a computer?

Have you ever tried to learn on-line?

How was that experience? Or Would you like to try?

From your point of view, what could be the best way to make online courses attractive to senior citizens? Which features should be contained?

What is/ was your motivation to learn the usage of an electronic device?

In which way would you like to learn? (face-to-face; virtual learning; peer-to-peer; etc.)

### **Participants without ICT experience:**

Why did you not use a computer yet? What are your fears and obstacles?

What is your motivation to learn the usage of an electronic device? What do you expect of the usage of a computer?

Would you like to learn using a computer?

Would you like to learn from home (that is on-line)?

What should an online course contain to motivate you for the usage of computers?

In which way would you like to learn? (face-to-face; virtual learning; peer-to-peer; etc.).

## Exercise 2: Final task



In this exercise you should be the one that designs a questionnaire. You can either follow the structure shown in exercise 1 or others presented in this learning unit. Choose the one that better fits your course and decide which questions to address.



Here you can use or implement the 3 questionnaires stated before. Did you add any topic, ICT hard skills and competence, or soft skills?

## Summary



In this chapter you have learnt the first steps towards user-centered-design methodology, starting from analysing the user needs. Once that first step is completed, you should then use the information provided by your adult learners to a better course design. There are multiple methods and approaches that are described in other chapters, but without any doubt, the first step if you listen to your learners, and that could be done using the proposed questionnaire we provide or other methods we suggest as focus groups.

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