ELEARNINGNEWS ARTICLE

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How to design an effective course structure

Designing didactics in courses is a critical step in eLearning training. Learning theories can help evaluate the final design.

Introduction

eLearning has become increasingly important in recent years, thanks to improved digital technologies such as the cloud and better connectivity, which have led to a growing demand for flexible and personalized learning. Designing an effective and engaging eLearning course requires careful planning and a thorough understanding of learner needs and learning theories.

In order to best design an eLearning course, several elements need to be taken into account, ranging from the needs of the learners to the characteristics of the subject being taught; from the characteristics of the chosen technological solutions to the conditions under which the use of the learning material takes place.

Identification of target learners

One of the first steps in designing an effective eLearning course is to identify the target group of learners. Each group of learners has different needs and characteristics, which must be taken into account when designing the course.

Characteristics of different audience types

Learners can be divided into different groups, depending on their ages, education levels, work experience and other variables. Adult learners may have different needs than younger learners: while the former may have a wealth of experience and knowledge to which new notions can be added, younger learners may have more mental flexibility; in the work environment, while for seniors the critical issue may be updating skills, for juniors the issue is to ferry theoretical notions learned in school or university to a set of practical skills. It is therefore important to know the characteristics of one's audience in order to design a course that meets their needs.

Adult students need a different kind of teaching approach than younger students. They are usually more motivated, but also more engaged with their work and family lives. This means they need to be actively involved and the course needs to be flexible and personalized. In addition, adult learners often have prior experience that can be used to facilitate learning.

Younger learners need a more engaging and interactive teaching approach to help them maintain attention and motivation. They are often used to interacting with technology, so an eLearning course can be a positive experience for them. However, younger learners may find it difficult to manage their time and focus on extended activities, so it is important to design the course in a way that breaks up the content and provides immediate feedback.

Knowing the characteristics of your learners is critical to designing an eLearning course that is effective and engaging. In addition to considering age and prior experience, it is also important to take into account learners' motivation, expectations, and needs.

Defining minimum learning objectives

In designing an eLearning course, setting learning objectives is one of the first steps to be addressed. Course objectives must be set clearly and precisely so that learners know what to expect from the course. This may not be merely a didactic requirement: some training courses may require the attainment of certain knowledge and skills in order to be considered valid.

In addition, establishing course objectives is important for assessing the necessary skills that students must already possess to access them. This approach allows the design of the individual course to be embedded in an organic educational system, in

which each of the courses offered allows the student's path to be channeled to subsequent ones. This setting can then be recorded through **Open Badges**, personal digital certificates that can store and sort the student's entire educational path. Open Badges and eLearning are two tools in mutual symbiosis thanks to which, courses delivered in eLearning are recorded in digital certificates and these can summarize the competencies that allow the student to access more advanced courses such as the final certifications and the tasks to which they enable.

Before defining course objectives, it is important to identify the access competencies needed for learners. These skills are critical to ensure that students have the basic knowledge needed to actively participate in the course. Once the access competencies have been identified, it is possible to define the minimum learning objectives that the course should provide for students.

Minimum learning objectives should be specific, measurable, realistic and time-limited. The definition of learning objectives should also take into account the level of difficulty of the course and the time available to students. In addition, it is important to take into account the audience and the context in which the learning takes place, so as to ensure that the objectives are suited to the needs of the students.

Setting clear and measurable learning objectives also helps students monitor their progress and know when they have achieved the course objectives.

Contextualization of learning

It is important to choose eLearning tools not only according to the objectives of the course and its intended audience, but also according to the context in which these courses will be taken: learning can take place remotely, either at work, or in a blended format.

The use of multimedia content, such as videos, images, animations and podcasts, can be an effective way to exemplify, summarize and make concepts memorable. Not all of these fit the different contexts in which learning takes place. A podcast, for example, might be a good choice for review by the individual learner while multimedia content might fit well with learning at work if the location can isolate itself adequately from its surroundings.

The choice of different teaching tools is also important to best simplify complex concepts and break them down into more easily understandable parts, if necessary. This remains a choice that allows for several suitable solutions but the **focus should remain on active student engagement**: the Instruction Designer, the designer of the course, should first try to **keep the students' attention and encourage active student learning**. There are several techniques that can be used to foster this active learning, such as problem solving, simulation, group activities, and guided discussions.

Topics to be covered

To decide what topics to cover in the eLearning course, it is important to be clear about the minimum learning objectives to be achieved, the target audience, and the context in which the learning takes place.

Once these aspects are defined, the main topics to be covered in the course can be identified. **To divide a topic into modules and sections, it is useful to consider the maximum length of the module**, the maximum difficulty that students can handle, the number of new concepts that need to be introduced in each module, the logical progression of concepts to be presented, and the activities that students will be expected to perform.

For example, if it is a computer course for beginners, the first module could be devoted to introducing the computer and its main components, while another module could focus on using the mouse and keyboard. In addition, it might be useful to divide a complex topic into several modules, each of which addresses a specific aspect and develops it in detail.

In general, for novice students, it is worth considering that introductory modules be shorter and explain concepts in more ways, presenting more examples. Later modules may increase in length or complexity. In contrast, a more advanced course could limit itself to pointing out, possibly with appropriate links, preparatory or in-depth concepts.

Division of the course into modules

Once you have decided on the topics that will be covered in the course, it is important to divide them into modules and sections in a logical and consistent manner. The division of topics should be based on the logical and sequential organization of information and ease of learning for students.

Several techniques can be used to divide themes into modules and sections. For example, the maximum length of each module can be considered so as not to overburden students with a large amount of information. Also, it is important to consider the level of difficulty and the number of new concepts introduced in each module.

Another useful technique for breaking down topics is **to group similar concepts into sections and then organize them logically**. This helps students understand the material better, as they can focus on similar concepts and understand how they relate to each other.

In general, the division of topics should be done in such a way that students can easily understand the logic of the course and get an overview of the content.

Creating a network of possible pathways

Once the themes have been divided into modules and sections, it is important to define a learning path that is logical and consistent for students. This will be the default sequence for the course. It is possible to define a linear pathway, in which students follow a sequence of modules and sections from the beginning to the end of the course. This approach is particularly suitable for training courses where it is important to provide structured, sequential training.

Alternatively, **a network of possible pathways can be created that allows students to customize their learning path according to their needs and interests**. In this case, it is important to provide a clear map of course modules and sections so that learners can navigate through the various options and choose the one that best suits their needs. The features of **LXP eLearning platforms** can allow this flexibility of use.

Regardless of the approach chosen, it is important that navigation between modules and sections is consistent and intuitive for learners. For example, you can use clear and intuitive navigation menus, icons that are representative of the content, or highlight links between modules and sections in a visible way.

Obstacles to overcome in teaching

When designing eLearning courses, it is important to consider possible obstacles that learners might encounter during the learning process. Here are some of the main obstacles and how to overcome them:

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Lack of motivation: learners may not be motivated to take the course or complete the activities. To overcome this obstacle, it is important to create an interesting and engaging course that has useful and relevant content for students. In addition, it might be helpful to offer incentives for completing the course, such as a certificate of completion or course credits.

Difficult access: students may have difficulty accessing the course or materials due to technical or accessibility issues. To overcome this obstacle, it is important to ensure that the course is accessible on different platforms and devices, and that it is compatible with accessibility standards for people with disabilities.

Difficulty in understanding: students may have difficulty understanding the concepts presented in the course. To overcome this obstacle, it is important to use clear and simple language and provide concrete examples and practical applications of the concepts. In addition, it might be helpful to offer instructional support such as discussion forums or online tutoring sessions.

Information overload: students may feel overwhelmed by the amount of information presented in the course. To overcome this obstacle, it is important to organize the course logically and present information in small portions. In addition, multimedia tools

such as videos and graphs can be used to summarize and display information more clearly and comprehensibly.

Lack of interaction: students may feel isolated and unsupported during the course. To overcome this obstacle, it is important to provide opportunities for interaction among students and between students and the lecturer, such as through discussion forums, chats, or video conferencing. In addition, it might be helpful to encourage collaboration and group work among students.

The main learning theories to follow

The choice of learning theories to follow when designing an eLearning course can significantly influence the quality of your students' learning. We are in the field of **cognitive psychology**. Here are some of the most common learning theories that can be useful when designing an eLearning course:

- The **Adult Learning Theory** of K.P. Cross, which focuses on adult learning through the use of their situational and personal characteristics.
- The **Cooperative and Collaborative Learning Theory** of Mark Arthur May and Leonard William Dobb, which encourages peer learning and collaboration among students.
- Jerome Bruner's **Discovery Learning Model**, which is based on the idea that students learn best through the discovery of new concepts.
- Howard Burrows' **Problem-Based Learning**, which focuses on using real-world problems to help students develop practical skills.
- John Keller's **ARCS Model of Motivation**, which provides a framework for increasing student motivation during the learning process.
- Charles Reigeluth's **Elaboration Theory**, which focuses on structuring information in a way that helps students better understand difficult concepts.
- The **Cognitive Flexibility Theory** of Spiro, Feltovich and Coulson, which argues that students learn best when they can see concepts from different perspectives.
- Reginald Revans' **Action Learning Model**, which focuses on learning through direct experience, encouraging students to try out new concepts in real life.

The choice of learning theories to follow will depend on students' needs and the learning objectives of the course. A successful course should seek to combine the learning theories to enhance students' learning experience.

In conclusion

In conclusion, instructional design in eLearning courses requires a number of attentions and assessments to ensure effective and engaging learning for students. The first step is to identify the target learners and define the minimum learning objectives. It is also important to consider the context in which the learning takes place and to choose appropriate eLearning tools according to the objectives and audience. In addition, dividing topics into modules and sections and creating a network of possible paths promotes consistent and logical navigation.

To ensure effective learning, it is also necessary to overcome common obstacles and adopt learning theories best suited to the course context. By taking these elements into account, it is possible to create an effective and engaging course structure for students that will ensure sustained and successful learning **. A useful guide for eLearning course design can be found here**.