ELEARNINGNEWS ARTICLE

Year 7 - number 238 Wednesday 15 march 2023

Active learning in eLearning

Active learning is one of the most effective and popular training methods, but creating an active learning environment online requires a lot of attention.

Active learning: what it is

The founders of **active learning** theory define it as:

"engaging learners in doing things and thinking about what they are doing. (...) When using active learning, students are engaged in more activities than just listening. They are involved in dialogue, debate, writing and problem-solving, as well as higher-order thinking, e.g. analysis, synthesis and evaluation'.

In other words, active learning describes an ideal learning process, as involvement with the learning material is the most effective way to improve knowledge retention. Other learning experts have refined this definition, providing a more holistic description of active learning that includes the following components: **information and ideas, experience and reflective dialogue**. According to this view, it is important that learners:

1. **encounter (new) information and ideas**

e.g. by watching videos or reading PDFs in advance, or from a short presentation.

2. **Confront each other with information and ideas**

e.g. through online discussions with peers.

3. **Reflect on their own learning**

e.g. by devoting the last five minutes of the lesson session to reflective writing and sharing their thoughts through open-ended surveys.

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4 Benefits of active learning

Let's take an analytical look at the benefits of active learning:

1. Responds to different learning needs

An educational project that promotes active learning involves learners from the very beginning, as all eLearning activities are designed to promote interaction with the learning content in different ways. Active learning thus offers learners the opportunity to explore both on their own and with others by 'experiencing' the eLearning content, which improves knowledge retention.

2. Strengthens important skills such as critical thinking and decision-making

Independence in learning new information makes it inevitable for learners to improve their critical thinking and decision-making skills. Indeed, among the plethora of information offered online, it is crucial to be able to recognise reliable sources from unreliable ones. In this way, learners can gradually take ownership of their learning. A good teaching design based on active learning offers learners the opportunity to learn through interactive scenarios in which they have to solve problems. These types of tools are ideal for improving critical thinking and decision-making skills because they allow learners to immediately visualise the consequences of their actions.

3. Increases learner motivation and performance

The fact that learners are given the opportunity to choose how to proceed with the learning content increases their motivation, as they are free to select the learning path they prefer, which makes learning closer to their personal interests. This also has a positive impact on their performance, as they receive immediate feedback for their actions.

4. Creates a strong sense of community through peer interaction

The fact that an educational project based on active learning focuses mainly on self-exploration of learning content does not necessarily mean that students do not interact with their peers. On the contrary, learning activities based on online discussions are numerous, as are group activities, as they help learners to share experiences and ideas on the subject studied and to draw their own conclusions.

Active learning strategies

Active learning strategies must serve the **learning objectives** of the course for your students. Remember that the objective of active learning is not simply to get students to do exercises, but also to think about what they are doing. As you learn more about the following strategies, evaluate the effectiveness of each of them in promoting the learning you want from your students.

Here are some questions to think about when choosing an active learning strategy:

- Which skill should my students be able to perform at the end of the online lesson session?
- Which active learning strategy will enable my students to practise this skill?
- When will my students encounter and engage with information and ideas?
- When will they reflect on what they have learnt?

Let's look at the active learning strategies adopted by Columbia University in New York to promote active learning in their courses:

1. Survey

Polling is a quick and easy way to test students' opinions or thought processes by making a statement or question and collecting responses in real time. Polls allow for simple multiple-choice surveys, including type questions asking students to indicate their level of agreement with a statement, to assess students' level of interest in a list of topics, or binary yes/no or true/false questions. Simple surveys can be used at the beginning, end or at specific times in an online class session to engage and assess students.

2. Think-Talk-Share

This active learning strategy consists of asking students a short problem, scenario or question and giving them the time and opportunity to:

- Reflect individually on the problem, scenario or question.
- Discuss in pairs with a partner.
- Share their findings or insights with the rest of the class.

This strategy not only gives students time to process and apply their knowledge and skills on their own, but also gives them the opportunity to consult and collaborate with a partner. This process usually produces more reasoned responses, and makes it easier to share with the rest of the class.

3. The 'Minute paper

A minute paper is a short document that students complete individually in one minute (or, more realistically, in less than five minutes) in response to a given request. Minute papers are a popular tool because they provide students with the opportunity to reflect on course content and disciplinary skills as well as their self-awareness as learners. This active learning strategy also

allows students' knowledge to be tested quickly. Minute papers can be assigned at the beginning, during or at the end of the online lecture session, as required.

4. Small group discussions

Small group discussions are a way for students to explore a particular problem or issue in more depth. You can pose an open question or problem, or provide students with a scenario or case study to work on. The duration depends on the task. Groups can then present their results or findings to the rest of the class.

5. Student short presentations

Short presentations offer students the opportunity to engage in peer-to-peer teaching. This type of activity invites students to summarise and communicate their knowledge. Students can be asked to research an issue of interest to them, related to the course topic, or to work on a problem outside the classroom, and present their findings during an upcoming online class session. In this way, students can link the course content to their interests and life experiences and learn from their peers.

Tips for using active learning in online training

How can you apply active learning to an online environment? And most importantly, how can your employees benefit from it during their online training? Here are some tips that can help you integrate active learning into your online training:

- **Use a variety of learning strategies.**

People learn in different ways and one of the most effective ways to promote active learning is to follow a learner-centred approach and then incorporate different learning methods. Consider combining online discussions with stimulating quizzes, role-playing with storytelling and problem-solving exercises with engaging visuals and graphics. In this way, different learning needs can be met and all students can be involved.

- **Follow an error-driven approach to learning**

To put the idea of brainstorming into practice, you need to find ways to help your employees develop their critical thinking skills without the fear of failure. Consider harnessing error-driven learning by creating a series of scenario questions that provide room for mistakes and encourage your audience to focus on eLearning content in a risk-free environment.

- **Encourage collaboration**

Collaborative learning is a great way to put active learning into practice as it creates opportunities to discuss ideas and collaborate on projects and group presentations. Create online discussions on an online forum or social media, where your employees can express themselves freely, share ideas and concerns, compare notes and discuss key points of online training. Remember to establish rules for appropriate participation and effective online communication.

- **Focus on interactivity**

The greater the interactivity of the online training course, the greater the degree of active learning. There are a variety of ways to integrate **interactivity** into your eLearning course, from simple drag-and-drop interactions to high-quality eLearning games and videos. Even a typical static presentation can be interactive, as long as you choose the right tool to turn it into a dynamic medium.

- **Connecting the online training course to the real world**

No matter how well designed your online training course is, it will not be of much use if it is irrelevant to your employees. One of the biggest advantages of active learning is that it allows the audience to apply what they are learning; therefore, always remember to create inspiring examples, cases relevant to the training material, and relevant problems to address and solve. Use reality-based scenarios, demonstration videos that clearly explain working procedures, and eLearning simulations that inspire your employees to analyse their own problem-solving strategies. In this way, you ensure that the audience remains focused and engaged, as information is always better retained when it can be put into practice.

- **Introduce active learning gradually**

Working in a virtual classroom requires patience. Start with simple, undemanding activities for you and your students to get comfortable with the new format, and give students time and opportunity to ask you questions. Eventually, instructors, assistants and students will become familiar with these online tools.

- **Don't make it a burden**

Try to minimise the barriers students may face in participating in the activities you have planned for the online class session. Factors to consider are access to reliable technology and favourable spaces, students' physical and mental capabilities, and timing.