



How to Design an Online University Course



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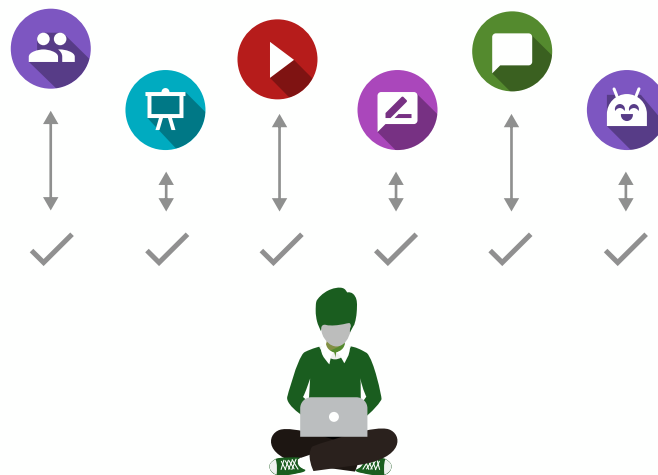
About FeedbackFruits & our pedagogical tools

As an Edtech company, founded in the Netherlands in 2012, we strongly believe that communication and feedback must travel between both teachers and students.

From this question, FeedbackFruits has become a driver of the transformation to active learning at the best universities worldwide, with more than 6000 courses using FeedbackFruits tools, from the United States - Ivy League included - to Europe and Australia.

The tools presented in this eBook all come from FeedbackFruits.

There are many other tools on our website and online. If you are interested in starting using these online tools for your course, or if you are already using some and would like to discover more, do not hesitate to contact FeedbackFruits.



Our goal is to make every course in the world engaging, finally letting teachers become teachers again, and giving the best to students who give their best.



Contact us, and we will check with you how to boost your students' learning together!

Introduction



As we speak, many educators are choosing online learning, either willingly or unwillingly. Indeed, global circumstances have prompted a rapid transition into online learning in all institutions, from high schools to universities. Although some institutions have been better prepared than others, all educators have been required to adapt their version of 'normal' and deal with a series of novel circumstances nevertheless.

Now that the initial panic of adapting to COVID-19 realities has passed, educators have more mental space to think about delivering and designing courses in the upcoming semester, either in a blended format or fully online. While there are similarities between planning a course for in-person delivery and online delivery, there are additional considerations to create engaging, functional online courses.

Aim of the eBook

This eBook walks through important considerations that teachers need to make when planning their upcoming online course, particularly if they are new to this style of teaching and learning.

Although some educators might feel nervous about the idea of approaching such a new style of teaching, online learning can lead to impressive outcomes when implemented well. Studies have shown “a positive relationship between the use of learning technology, student engagement and outcomes of learning” [1].

This eBook will serve as a step-by-step guide to prepare an online course, covering many of the central issues of online learning at the same time.

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Key principles of online learning

It is important to begin by covering some key principles for effective online learning.

Several considerations should be made when comparing online and in-person teaching and while the former can be very effective, it also correlates with lower rates of completion and higher dropout rates when implemented poorly.

A reason for this is that students are more remote while learning online, both physically and emotionally, and it can be difficult to keep their attention alive. As students have less interaction among themselves and teachers, it is critical to encourage social learning as much as possible, as well as having a clear learning journey, to avoid students becoming alienated from and disheartened by the learning process.





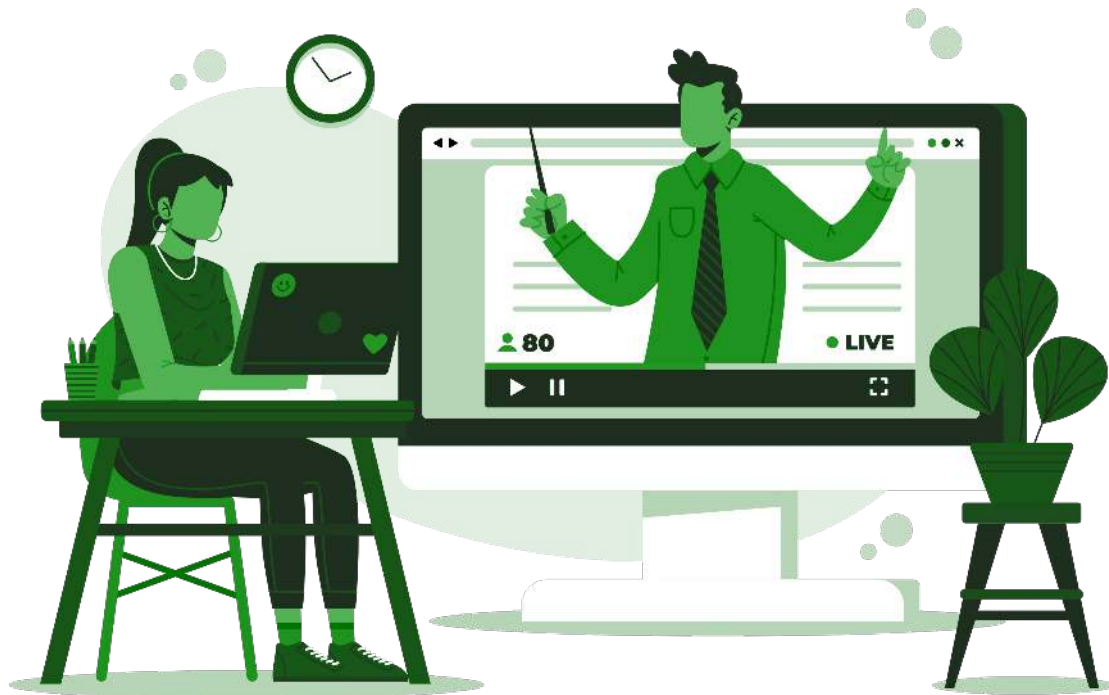
While reading this eBook, here are some principles of good online learning design to keep in mind.

1. Use synchronous and asynchronous learning wisely

In higher education it is a widespread practice to ask students to complete preparatory work before seminars or face-to-face learning times. When lectures are pre-recorded, it saves time for educators leaving more time to help students directly, either in an (online) classroom session or through one-to-one feedback.

This “flipped-classroom” approach helps save time in class and allows the teacher to go deeper into detail about what the students prepared while also improving responsabilization of students by asking them to be prepared in time.

It must be said, however, that flipping the classroom might save time during face-to-face lectures, but usually requires a larger amount of time than traditional learning during the preparation, especially when first starting with this method. More insights into the flipped classroom approach will be given during the explanation of the main steps to create your online course.



2. Make students active participants, not passive consumers

Active learning is correlated with better outcomes in almost every measurable learning metric [2]. Encouraging students to use their higher functions – analysing, synthesizing, curating information - rather than passively ingesting it leads to an improved ‘synthesis of learning concepts’ [2] in many situations.

Give students quizzes to do, videos and presentations to watch at home, assign group work, and allow them to come up with original ideas and papers they have to build themselves while you walk them through the processes using online tools.

3. Use regular learning prompts to encourage active learning

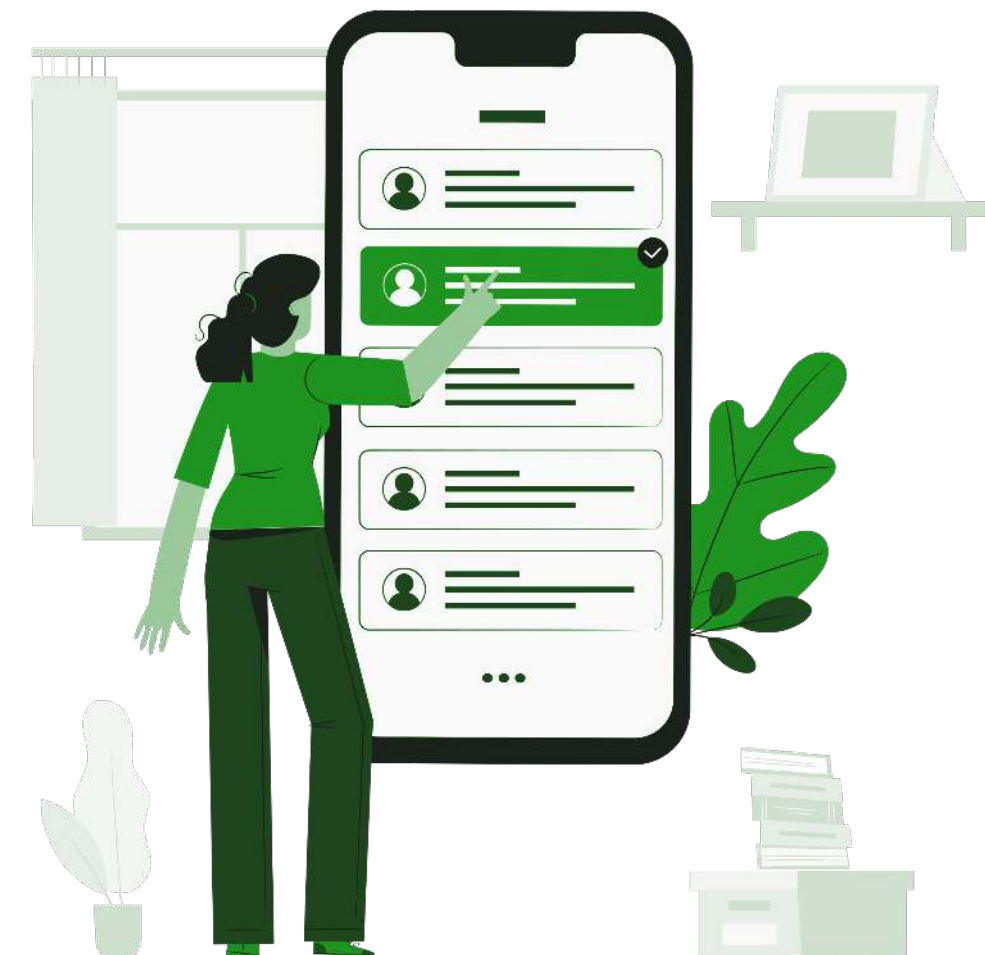
An easy way to encourage active learning is with the use of learning prompts. These can take the form of questions, cold calls, or short activities which are interspersed with micro-lectures or readings. These prompts push students to think about the information they are ingesting, making knowledge retention and synthesis more likely.

4. Social interaction is crucial for learning and for retention: maintain it

Online learning can produce feelings of isolation in students, which can diminish enthusiasm and potentially lead to increased dropout rates. Establishing a community is a crucial aspect of online learning and is reinforced by regular group learning tasks. Students can learn from each other, while developing team working skills.

5. Have a clear learning journey

The online learning space can be confusing for students as well as educators. A clear overview on the semester's content and learning objectives gives students an idea of their progress as well as what is expected of them. A good idea to achieve this is to have an organized course section in your LMS and a well-crafted rubric so students know how they will be assessed.



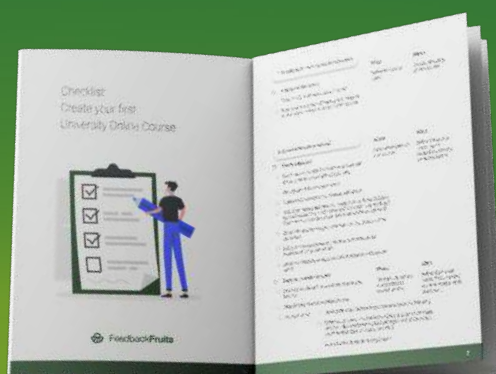
6. Make sure troubleshooting processes are clear

It is crucial that students know where to turn when encountering a problem with online learning, whether for a technical or course related issue. It is good practice to have a short, concise document with a few frequently asked questions as well as providing directions to students about who they should contact if they have concerns or difficulties.

This page should make clear what students should do in a variety of circumstances, both technical and content related. Such documentation prevents a lot of questions that might be directly addressed to an educator and makes it clear that the student experience has been considered.

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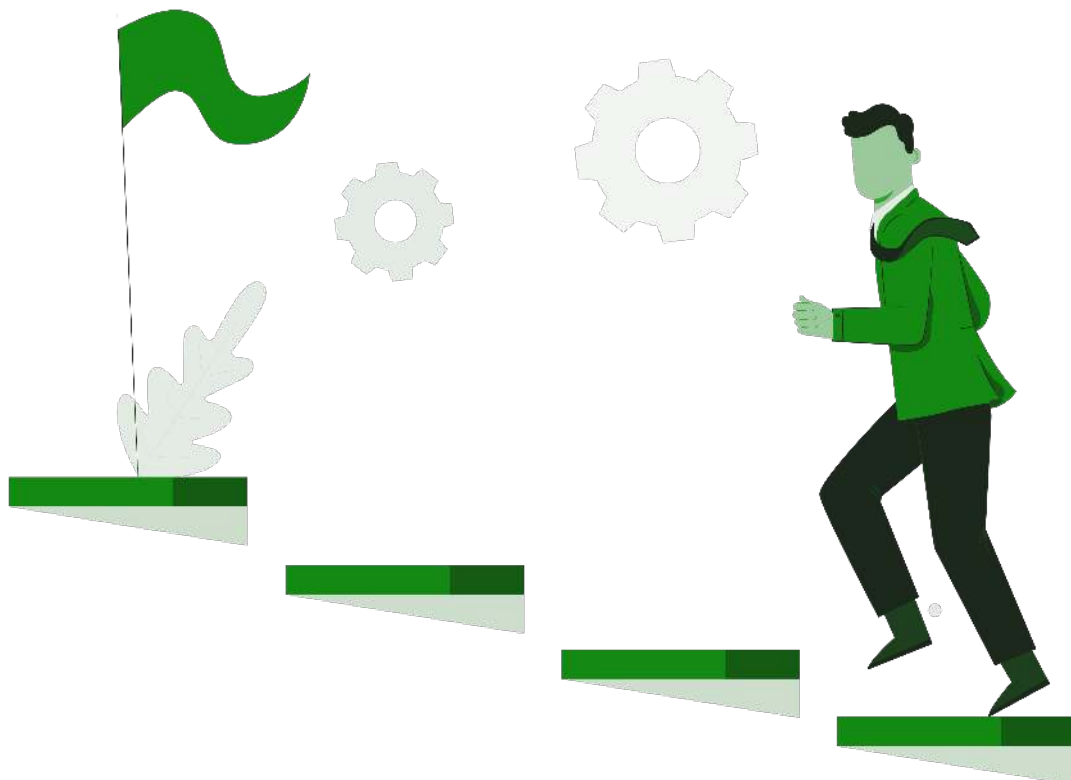
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8 steps to take when creating an online course for the first time

While it may initially seem to be an intimidating list, when taken as a step-by-step approach it should become clear that teaching online is not dramatically harder to apply than face-to-face teaching, albeit with some crucial considerations.

Much of your teaching content will already exist, so it is now a matter of crafting it into an online progression.



Step 1

Gather your content

While some of your content can be re-applied to an online design, online course design has some critical differences from a face-to-face setting. The learning path will be different and you need to acknowledge this if you want your students to have a successful learning experience. Some of the content you have may not be optimized for online learning, but you will deal with it at a later stage.

The process of designing an online course will be much easier if all this content can be gathered in the same place, for easy transfer and modification to the appropriate platform. This may be the LMS that you currently use, Google Drive, or other cloud software. Content should be as organized and easily retrievable as possible, to make course planning easier.

Content should ideally be grouped into weeks, focusing on a different topic each week. Content you already have may include:

- PowerPoint presentations
- Handouts
- Activities
- Assignments
- Educator notes

Many educators and learning designers find it easier to have a central, simple document which details the basics of the course layout. This makes it easier to spot gaps and to determine the right balance of learning activities.

Step 2

Consider what type of course you are teaching

There are a range of options being considered for higher education teaching in September 2020 [7]. Some universities are going fully online, others are using blended learning techniques and others are attempting socially distanced learning with online learning to support.

What is the difference between online learning and blended learning?

Online learning means teaching completely online, using only digital tools to make contact with students. Assignments are submitted online, as is feedback. Students and teachers can work together from any location.

Blended learning involves a combination of online learning and face-to-face learning. One well known version of blended learning is known as “Flipping the Classroom”. As already mentioned, by using this method teaching staff can use pre-recorded videos or other content for information delivery or a grounding in the basics of a subject, while leaving direct contact time free to “answer questions, give feedback, and prompt re-examination of key ideas” [3]. It is also possible to implement this approach when teaching completely online.

Step 2

Consider what type of course you are teaching

Online lessons can be delivered synchronously (with everyone online at the same time) or asynchronously (where students are free to complete the work at any point up until the deadline).

Fully online courses versus blended learning courses require different designs. Online courses can avoid any synchronous delivery, if required, by merely providing educational content for students to complete and assignments to finish following their own timetable.

Blended learning, on the other hand, can use in-person activities which are not feasible online. Clearly, it is important to establish at the beginning of your course design which type of course you will be teaching, in order to organize your process in the best way possible. So ask yourself: am I going fully online or I will use a blended learning approach?

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Step 3

Familiarize yourself with the base technology available to you

Most universities already have some form of online learning platform, usually in the form of a Learning Management System (LMS), such as Moodle, Blackboard or Canvas. It is helpful to stay within this framework when designing an online module. Indeed, both educators and current students will already be familiar with the usual LMS, making it easier to navigate for everyone.

While educators do not need to be fully versed in the technicalities of digital course design, it is important that they understand how to perform basic functions when designing a course. This whitepaper cannot provide technical assistance, but academic departments often have an Instructional Designer or Learning Technology Department which can provide training on tasks like setting up a new module, embedding video content, using pedagogical tools, or adding documents and assignments to your LMS. Use the experts in your institution, since it is the quickest and easier way to have a great start with your online course process.

The better an LMS is understood, the easier it is to design a clear learning journey for students, avoiding confusion. Do not be afraid of engaging in the good old plug-and-play behaviour. Before the semester starts, “play” with the online environment and gain confidence with it: it will make everything easier later on.

Step 4

Decide your core teaching methods

A crucial difference that makes online learning preferable to face-to-face learning is that traditional, live lectures do not work as well as we used to think. While many educators feel comfortable with this approach, evidence shows that this method of learning is ineffective at best, particularly when in an online environment. It is impractical for several hundreds of students to digitally attend a live lecture. Student attention spans are short online – Harvard Business School estimates between 3-5 minutes [4] – due to constant distractions available online.

Students regularly “multi-task, check emails, chat with friends, and surf the Web while attending online lectures” [5]. Hour long lectures are simply not feasible.

Instead, online learning can follow other methods such as the Microlecture approach, or the Challenge-Based approach.

Microlectures

This approach involves splitting lectures into shorter snippets which are pre-recorded. Approximately 3-5 minutes is an appropriate length. Microlectures cover one aspect of a larger topic and are often followed with a short activity or reflective questions to keep students involved. Any number of microlectures can be used, until all the content is covered.

However, it is a good idea to keep microlectures concise, rather than producing hundreds of chunks of content. Microlectures are an excellent way to give an overview of a topic, then direct students to further learning or research on their own. [Coursera](#) is an example of an online content platform which takes this approach.

Tool Example: Interactive Video

Ever desired to explain something really interesting to students during an educational video? And how can you be sure they will get the best out of it and focus on the things you, as a teacher, want them to focus on while watching?



Unfortunately, while watching educational videos is an important study activity, students are often only passively consuming the video and audio content.

Interactive Video is a low-barrier tool that adds interactivity to the study material and transforms learning into a more collaborative experience. It allows teachers to flip the classroom by letting students answer simple questions before class while going into depth during class discussions.

Microlectures are easy to make, requiring an educator to record themselves giving a short lecture, similar to a traditional lecture. Pre-recorded microlectures can be uploaded to a learning platform in advance of in-person teaching sessions, for students to review in their own time.

They can be enhanced using additional videos while converging content from different platforms.

In a fully online course, microlectures would be the only “lecture-like” experience students would get, while in a blended approach microlectures can be used as assignments, part of quizzes or teamwork, or as material to watch and be prepared for the face-to-face sessions.

Challenge-based approach

Another alternative to recording traditional lectures is the challenge-based approach, or problem-based learning, which removes the need for lectures entirely. At the beginning of each week, students are assigned a challenge to complete, before a set deadline. Challenges can be team-based or solo. Using this methodology, students are given an area of learning to focus on and then allowed to determine for themselves the best way to learn the content and complete the challenge.

What is Problem-based learning (PBL)?



PBL is an approach where curricula are designed around problem or challenge scenarios. Students work in small teams to explore a scenario, locating gaps in their own knowledge and skills and determining what information should be acquired in order to 'solve' the problem. In this approach 'lectures, seminars, workshops or laboratories support the inquiry process rather than transmit subject-based knowledge'[6].

For a use case and know more about this approach, you can look [here](#).

This approach works well for more practically focused courses, like business or marketing courses, as students can do research alone and then put their learning 'into practice' through an imaginary case study. The PBL approach often involves presenting the challenge to a group, explaining choices and analysing barriers. When using a challenge-based approach, you can make the challenges become progressively harder, or end in a final challenge which involves using knowledge or created content from all the previous weeks.

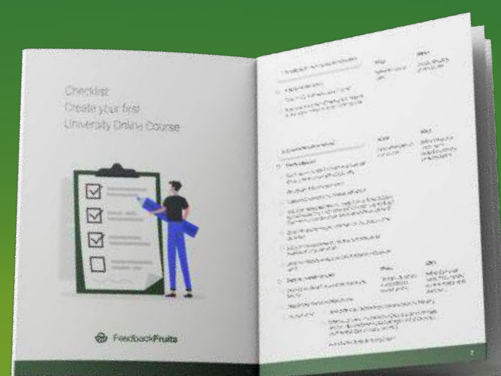
Indeed, PBL can also be used in an online environment, both blended and fully online.

With PBL, the instructor will act as a facilitator, guiding the groups and students in case of need, providing material and examples. Microlectures, interactive videos or documents, and peer feedback activities can also help students build those blocks of knowledge that help them solve the challenge.

The crucial aspect of this approach is that students are given very little knowledge before the start of the challenge and are instead required to discover the best approach through trial and error.

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Step 5

Think about assessments

For many teachers approaching online teaching for the first time, the subject of student assessment will be of fundamental importance. If the restrictions of COVID-19 continue into the Autumn/Fall term, traditional exams might not be feasible. It is likely that there will be departmental directives on final assessments.

However, online learning gives a great amount of leeway for utilizing formative rather than summative assessment. Online pedagogical tools, in fact, allow teachers to grade students, rather than with a final pass/fail grade, by giving feedback at multiple points through the semester by using grading systems that will not affect the final grade. Many educators assume that this creates more assessment work for them, but online learning provides the option to grade students automatically for specific activities, thus requiring less input.



Peer feedback, for example, is great to use for formative assessment. It teaches students to give and receive feedback, as well as ensuring their work is continually assessed and giving them multiple opportunities to streamline their efforts. Moreover, integrations allow for feedback to be given more automatically, requiring less marking time from educators.

Regular feedback can prove invaluable for students, particularly those nervous about online learning.

When designing your assessments, it is important to keep in mind your learning objectives. What do you want students to learn and how can you assess whether or not they have reached these learning goals? When designing your course it can help to follow the approach of constructive alignment. This means that you will align the activities and assessments throughout the course with the learning objectives. To do so, first the learning objectives must be determined, then the instructor designs the assessment, followed by considering what the learning activities must involve in order to reach the desired learning outcome. Finally, there is the design of the teaching materials and the teaching activities.

Tool Example: Automated Feedback



Imagine a software able to correct students while they are writing their papers, with just-in-time teaching and learning. Imagine those students honing their skills with specific feedback, while relieving teachers from the burden of repetitive and “low order” feedback. You need not to imagine any longer.

This LMS plugin, powered by Artificial Intelligence, enables students to receive formative feedback on their academic writing skills based on criteria set by teachers. Students can iterate on their assignments before they hand-in a final version. The feedback consists of straightforward corrections, actionable inline feedback, suggestions, and compliments.

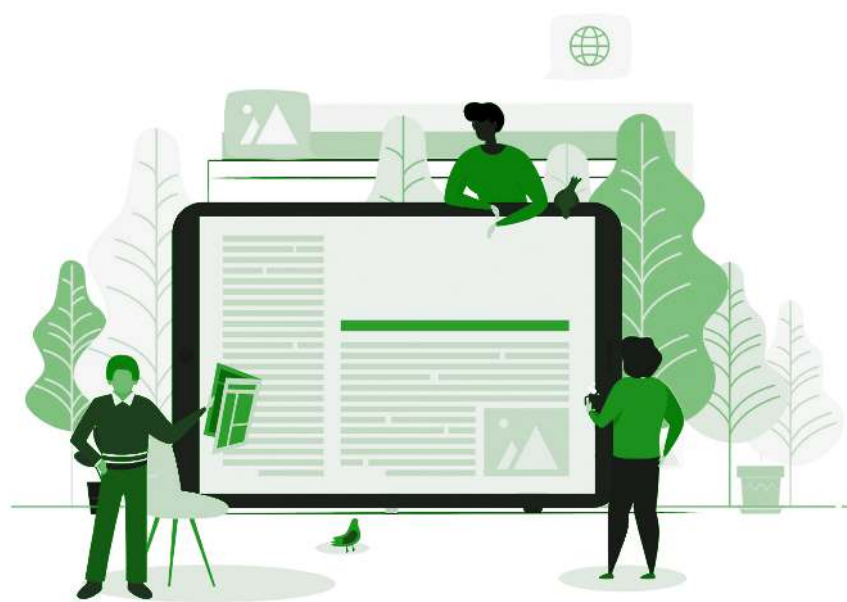
Step 6

Match your tools to your content

Once you have established the basis of your course and determined the outline of the learning journey in a week by week plan, it's time to look for opportunities for active learning. Active learning is anything which involves students working together, assessing and analysing information critically, or doing their own research, rather than passively receiving knowledge.

There are several popular tools which can be used to promote active learning. Many of these can be integrated into different LMS', making them easy to set up and use.

Think about what you want to accomplish and choose the appropriate template: is it empowering students' feedback you are searching for? Or maybe you want to hone their analytical and information gathering skills?



Some popular tools from FeedbackFruits to promote active learning include:

- Peer Review
- Skill Review
- Discussion Assignments
- Interactive Documents
- Comprehension

Tool Example: Peer Review



Peer Review enables instructors to create assignments for students to provide feedback to their peers on deliverables. The tool structures and streamlines the process of students reviewing their peers' work. The teacher specifies the criteria by which students evaluate their peers' work and sets deadlines and instructions.

Groups are automatically synced from the LMS and each student is automatically assigned. Feedback can be provided on multiple types of deliverables such as videos, websites, documents

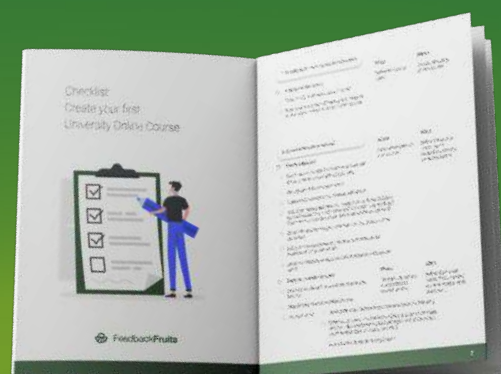
Indeed, it is always valuable to keep the principles of constructive alignment in mind as explained above.

It can be helpful to look through the document summarizing each week's learning, and then considering if additional tools can assist in learning. Particular tools are suited to certain types of learning, or even courses.

Make sure to think about your learning objectives when designing your learning activities and choose the tools that support them.

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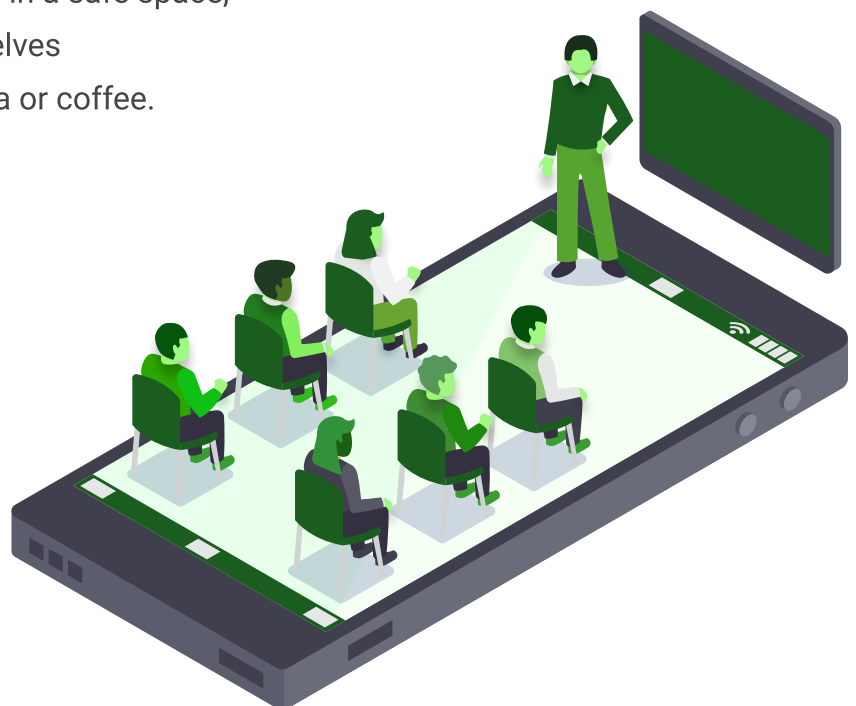
Step 7

Maintain social interactions during your lectures

While lectures and most of the activities might be online, your students are still expecting to experience the human factor of education in your online class.

There are many things that can be done about this. A suggestion on how to maintain good social interactions might be that of taking the first minutes to have a “wellness-check” on your students by asking how they are, or if they have something nice to share (if the class is big, you can just ask a couple of them chosen at random). Maybe make this an everyday thing, by also reminding them that they are in a safe space, asking them to make themselves comfortable with a cup of tea or coffee.

Kindness and care can go a long way in these cases.



Step 8

Get help when necessary

While teachers are frequently responsible for creating their own curricula, help is often available when crafting online courses. Your university may have one or several instructional designers who can assist you with making your courses interactive and compelling.

Moreover, a good practice is to listen to your students' feedback - or better, prompt for it - during or/and at the end of the course: they are the one experiencing the course design from a learner perspective, so they should be let free to tell what works better for them.

EdTech companies who collaborate with universities are often an undervalued resource. They understand the tools you are using well enough and will have plenty of examples of those tools being used that you can draw from. Do not be afraid of shooting them an email or scheduling a call!

Also, increasingly learning design resources are being made available online, making the internet an invaluable resource for creating online courses for higher education.

Conclusion



Crafting an online course can be a complex process, but following these steps you will be able to have a great start. Active learning is becoming a consideration for many Higher Education departments anyway, so now is an opportunity for educators to experiment with new forms of learning.

Online learning, especially for those who have never done it before, will involve adapting to a new set of circumstances, but there are a multitude of helpful tools and content available to make the process easier.

We hope we were able to answer some of your questions and give you interesting insights on how to start designing your online course.

Congratulations!

Now you are ready to create your first online course design.

Nice to read

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[2] A Comparison of Lecture-Based and Challenge-Based Learning in a Workplace Setting: Course Designs, Patterns of Interactivity, and Learning Outcomes , Timothy K. O'Mahony

[3] Baepler, P., Walker, J.D. & Driessen, M. (2017) 'It's not about seat time: Blending, flipping, and efficiency in active learning classrooms', Computers & Education 78: 227-236, pp.229.

[4] <https://online.hbs.edu/learning-model/>

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<https://hbr.org/2020/03/what-the-shift-to-virtual-learning-could-mean-for-the-future-of-higher-ed>

[6] Savin-Baden, Maggi "The challenge of using problem-based learning online"

[7]

https://www.chronicle.com/article/Here-s-a-List-of-Colleges-/248626?cid=wcontentgrid_hp_2 (Retrieved on 08/07/2020)