

What is „good“ online teaching, anyway?¹

How do we determine whether a course (online or face-to-face) is "good" or not? By the satisfaction of the students or the results of the teaching evaluation? By our own satisfaction as lecturers? Or by the learning success (objectively: grades, completion rates; subjectively: self-reported learning growth)? All three aspects may or may not correlate with each other. You may have experienced this yourself when comparing the results of your course evaluation with the results of the exam.

In our view, good teaching enables and supports students in achieving their learning goals. In this sense, good teaching promotes therefore the students' learning success - regardless of whether courses are held face-to-face or online.

Online vs. face-to-face: Which form is more effective for learning success?

When it comes to knowledge or skills learning, there is no systematic difference between face-to-face and online formats according to the empirical teaching-learning research. Online learning is therefore neither better nor worse than face-to-face learning in terms of the learning success (cf. Schultz-Pernice et al. 2020, p.7).

Whether online teaching is more conducive or obstructive to learning can be assessed - considering the results of the meta-analysis of empirical studies on online teaching by Wandera (2017) - in particular by the following eight parameters regarding the design of the learning environment. The chances of promoting learning in an online course increase if the following aspects are considered in the design of the course:

1. Opportunity for peer interactions (exchange among students, e.g., in discussions)
2. Clearly articulated expectations for students, e.g., in terms of course requirements
3. Orientation for students, such as an overview of the course at the beginning
4. Relatively immediate feedback to the students about their performance
5. Different ways of learning, e.g., through videos, interactive materials or synchronous teaching
6. Lecturer's presence: "the lecturer is available and present in discussions"
7. Different types of assessment so that students have different opportunities to demonstrate they can master the contents
8. Learner-centered course design, meaning that students are the focus of attention

Synchronous vs. asynchronous? Which concept is effective - and under what circumstances?

These rather general (though empirically based) notes, which are certainly valid for both face-to-face and online teaching, will be supplemented in the following sections by evidence-based recommendations on how to design synchronous and asynchronous online learning environments or teaching courses. As it stands out from many publications on empirical teaching-learning research, the greatest influence on the quality of teaching (in the sense of promoting learning success) is not the fact whether a course was conducted face-to-face or online, but how it was actually designed.

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Asynchronous teaching

Asynchronous teaching is particularly suitable for the individual development and consolidation of contents, for example through

- Presentation of contents via texts (e.g., as file or web link), podcasts, videos or multimedia learning modules;
- In combination with (written) tasks for active processing, consolidation, reflection of the contents, e.g.,
 - through the processing of a task;
 - through the joint preparation of a topic by collaboratively creating a mind map, a glossary or a wiki;
 - through the joint analysis of case studies (in groups),
 - by keeping an individual or collaborative learning diary or portfolio;
- Ideally accompanied by automatic feedback for tests or individual expert or peer feedback;
- By providing opportunities for asynchronous interaction with lecturers as well as between students themselves (e.g., collecting and commenting on ideas or asking open questions about the contents in a forum).

What is asynchronous teaching?

Asynchronous teaching takes place regardless of time and place. Lecturers and students do not meet directly at a specific time in a specific place. However, lecturers can set guidelines for assignments and submissions in order to structure learning in terms of time. Furthermore, peer interactions can also be integrated into the asynchronous learning/work phases, so that asynchronous teaching does not necessarily mean learning "for oneself" and "all alone by him/herself". Like synchronous teaching, asynchronous teaching can be implemented in both digital and "physical" spaces.

Benefits of asynchronous online teaching (cf. Oztok et al. 2013)

- Temporal flexibility and personal autonomy in learning: length of learning phases, breaks, repetitions, depth of the contents – all this can be determined by the student;
- Reflect and elaborate without time and social pressure;
- Accommodate more easily learner heterogeneity (prior knowledge, learning preferences and styles, content interests);
- Potential for higher quality interactions involving very large numbers of learners;
- Encouraging a clear structure of teaching (e.g., by explicating learning objectives or deliberately sequencing learning contents).

Challenges of asynchronous online teaching

- In purely asynchronous settings, it can be difficult to see oneself as part of the learning group and to feel socially included. Communication (via facial expressions, gestures, speech, voice) and interaction with peers is only possible to a limited extent. All this has a strong negative influence on the motivation to learn.

Synchronous teaching

Synchronous teaching is particularly suitable for interactive settings (e.g. learning activities that involve the joint development of ideas and concepts) and for boosting motivation to learn by establishing a sense of social connection, for example, through:

What is synchronous teaching?

In synchronous teaching, lecturers and students are simultaneously in a joint room (in the virtual meeting room or in the traditional auditorium/seminar room at the university) during a clearly defined period with a fixed start and end time in order to attend a course together.

- Short on boarding routines to build trust and foster communication and collaboration (e.g., ice breaker questions);
- Debates on the theses or contents developed in the asynchronous phase (supported by breakout rooms in web conferencing systems as well as by digital voting tools and online bulletin boards for pro/con lists);
- Resolving complex questions collected in the forum during the asynchronous phase;
- Joint discussion of the results of tasks that were worked on individually in the asynchronous phase;
- Presentation of group activity results prepared in the asynchronous phase;
- Joint preparation of mind maps for structuring the contents prepared in the asynchronous phase;
- Handling or discussion of case studies (supported by an online bulletin board) based on fundamental ideas developed in the asynchronous phase.

Benefits of synchronous online teaching

- Social proximity and shared presence (in the digital space) promote the feeling of social inclusion and therefore increase learning motivation (for more information, have a look at our learning module “Getting closer and get involved: How to support social closeness and active participation in the virtual classroom”: https://ilias.uni-giessen.de/goto.php?target=lm_291987).

Challenges of synchronous online teaching

- Being tied to fixed schedules makes it difficult for learners to learn at the time that suits them and at their own pace and rhythm.

Conclusion

According to empirical studies, online teaching is no worse than face-to-face teaching in terms of learning success. The difference between teaching that effectively promotes student learning, and teaching that does this less successfully can therefore not be explained by the choice of a digital or a physical way, but rather by how the lecturer designs the course.

After reviewing the research literature, we can conclude that it is beneficial for learning to use consciously asynchronous and synchronous elements in online teaching. In doing so, you need to pay attention to your different goals and be aware of the potentials and limitations of this kind of teaching. This way, you can combine the asynchronous and synchronous elements in a planned manner, especially in forms of blended learning, i.e., a combination of synchronous and asynchronous learning. In this case, synchronous phases can be conducted both in presence and virtually in the form of synchronous online meetings.

Literature

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