

# Online-Planning-Guide

## How to teach business cases supported by digital technologies

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### *Abstract*

*Business cases, also known as case studies or teaching cases, are a common and fruitful teaching method in higher education. Before the Covid-19 pandemic, they were mostly used traditionally — that is in class and paper-based form. This teaching method is a participatory, discussion-based way of learning, where students gain skills in critical thinking, communication, and group dynamics. The post-pandemic modern world with its global labour market, requires however that students not only develop digital competencies, but can also employ them in an international collaborative setting. With this Online-Planning-Guide, we guide lecturers in how to employ the case-based teaching method online in an inter-university setting, in which students develop skills in analytical thinking and reflective judgment by working together online to solve complex, real-life business cases.*

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## Why you should read this Online-Planning-Guide

Welcome! This Online-Planning-Guide will help you to plan the case-based teaching method online in an inter-university setting. Moving from an offline teaching setting to a digital environment can be challenging, especially if this involves group and discussion-based learning between students from different universities located in various countries.

To help you deal with this, we developed an Online-Planning-Guide (OPG). The OPG is a good resource for lecturers who want to explore teaching business cases online, or who want to become inspired on how to improve their teaching. It shows how didactically developed business cases used for online inter-university teaching can be taught. Not only does it contain topics like how to plan classes to make the course more effective and engaging, but it also provides a set of instructional steps in the form of a checklist.

Moreover, the OPG provides insights into the teaching method and contains, in detail, all necessary organisational aspects such as team composition, media use, time planning, notes for the introductory event, a platform for securing intermediate results and the process of final presentation as well as suitable evaluation methods.

With the OPG, we aim to elaborate on how to teach business cases digitally as well as aiding the teaching process by enhancing the digital and cultural competencies of students by facilitating working together in virtual teams. In doing so, we aid students in developing collaboration skills and digital competencies.

We hope you enjoy the Online-Planning-Guide!

## Teaching cases online in an interuniversity setting

Business cases, also known as case studies or teaching cases, are a common and fruitful teaching method in higher education. Before the Covid-19 pandemic, they were mostly used traditionally — that is in class and using a paper-based format. According to Andersen & Schiano, 2012; Brooke, 2006; Farashahi & Tajeddin, 2018; Jakka & Mantha, 2012; McLellan, 2004; Pilz et al., 2013; Pilz & Zenner, 2018; Rollag, 2010; Shivakumar, 2012; Smith, 1987; Tripathy, 2009; Velushchak, 2014 and Webb et al., 2005 this teaching method is a participatory, discussion-based way of learning, where students gain skills in critical thinking, communication and group dynamics. The post-pandemic modern world with its global labour market requires; however, that students not only develop digital competencies, but can also employ them in an international collaborative setting.

Based on our previous experience and research on higher education, we found a need for pedagogically high-quality online teaching cases, because on the one hand the lack of a guide to the creation of elaborate, high-quality pedagogical case studies with practical content at the same time (which was previously in the foreground), and on the other hand, due to the new requirements in the world of work as a result of digitization and the resulting necessary skills in intercultural relations and in dealing with new technologies.

The online teaching case method builds further on the principles and techniques of the case-based teaching method (Grover et al., 2020; Taurines et al., 2020). In general, using a case-based teaching approach engages students in a discussion of specific scenarios that often resemble a real-world example. This method is often used in teaching, for example in medicine, when the lecturer educates students using actual examples.

This method centres on the learning experience of the student, by facilitating interaction and discussion between participants as they build their knowledge and work together as a group, to examine and solve the case (Andersen & Schiano, 2012; Harland, 2014; Jakka & Mantha, 2012; Pando & Aguirre-Muñoz, 2021; Safapour et al., 2019; Shivakumar, 2012; Smith, 1987; Smith-Maddox & Solórzano, 2002; Tripathy, 2009; Velushchak, 2014). Using case studies also allows development of networked thinking (Pilz & Zenner, 2018), as well as competencies of intercultural learning (Pilz et al., 2013). The use of cases in online work in international groups, enables the development of five of the eight key competencies widely accepted in European education systems (Council Recommendation, 2018; Rachwał, 2019). It is primarily entrepreneurship competence, but also: multilingual competence, digital competence, personal, social and learning to learn competence as well as cultural awareness and expression competence.

The online teaching case method, like the traditional case-based teaching method, is also a participatory, discussion-based way of learning where students gain skills in critical thinking, communication and group dynamics (Webb et al., 2005). In an online environment, students may perform better at multiple levels of learning outcomes, especially when using a blend of classroom and online technologies. Furthermore, the precepts of the case-based teaching method may be enhanced using online discussions.

The main difference, however, is that in the online teaching case method high-quality pedagogical teaching cases with practical content are developed for students, developing skills in analytical thinking and reflective judgment, by working together digitally, rather than in a

classroom, to solve complex, real-life business cases (McLellan, 2004; Brooke, 2006; Rollag, 2010). Online teaching cases require organising, and coordinate a self-directed and independent educational process with the use of digital media. The use of teaching cases in the context of business, offers the possibility for international students to deal with complex challenges, promoting networked thinking and problem-solving. However, to succeed in this, the educational team needs to rethink its “traditional” university approach, by organising and coordinating a self-directed and independent educational interuniversity process using digital media, that allows for international cooperation between various educators and students.

Cognisance must be taken of two important facets: the background of the students, and the institutional requirements. The latter involves dealing with competing institutional logics, such as differences in a preference for grading, or how to communicate with students. The former includes aspects such as cultural backgrounds, preferences of students’ involvement, and participation. Both facets need to be included in the design of the inter-university educational process to make it a success.

“The art of managing uncertainty”, in the words of Chris Christensen (Barnes et al., 1994), becomes more complex, since students nowadays not only need to search for solutions to real-world problems and challenges, but need to do so based on working together virtually and collocated. For lecturers, this means that part of the learning opportunities can occur outside the classic classroom, or teaching moments, between lecturer and student.

With this OPG, we guide lecturers on how to employ the case-based teaching method online in an interuniversity setting, in which students develop skills in analytical thinking and reflective judgment, by working together online to solve complex, real-life business cases.



Visit <https://www.e3cases.uni-koeln.de/en> for an example and more resources

## Preparing for teaching online together

To get started, lecturers need to determine what learning goal needs to be served. An educational goal that is specific and clear can be broken down into objectives or learning goals. Learning goals are the higher-level outcomes we expect students to achieve, while objectives are the specific, measurable competencies that demonstrate the students achievement of learning goals, for example if the learning goal is to teach students to think critically about economic theory, the corresponding objective might read: "By the end of this course, students should be able to write an essay explaining one of the major economic theories (e.g. Supply and Demand [Invisible Hand], Classical Economics. Keynesian Economics), and identify arguments for and against its veracity based on the historical experience of a selected country”.

These objectives are important in establishing a pedagogical interchange between lecturers and students, as well as allowing them to plan and deliver instruction (Leake & Ram, 1995; Lai & Jan, 2011). This requires, not only to define the necessary skills and entrepreneurial competencies that are vital, but also to develop what kind of learning environment you, as a lecturer, want to create for your students.



To develop a learning goal, we recommend Bloom's taxonomy. Bloom's taxonomy consists of six levels, each of which



**Align the learning goal with the learning environment to develop the best learning experience for students**

contains objectives with a higher level of abstraction. These levels are knowledge, comprehension, application, analysis, synthesis, evaluation, and inference. The learning process, using Bloom's taxonomy, is based on motivating and supporting students to reach higher and higher levels. Objectives are created using characteristic verbs that describe student actions, (e.g. comprehension: Students describe/ contrast/ discuss...; analysis: Students analyse/ explain/ investigate/ infer...). The teaching note for each business case contains the most relevant specific learning goals based on Bloom's taxonomy. The lecturer planning the work of his students with cases, may expand them or set additional goals appropriate to the groups of students. In addition, it is important to envision what learning environment to create to attain the learning goal. The more realistic the environment simulated for students, the better the learning experience (Allodi, 2009; Baxter et al., 2018; Lee & Hung, 2015; Majumdar, 2009; Okudo et al., 2018; Vasilleva, 1999; Wu & Yu, 2017).

Parallel to developing the learning goal(s), it is important that lecturers get to know their students. By getting familiar with student's backgrounds, as well as getting an idea of their prior education and knowledge, it will be possible to create a tailor-made learning experience. When working with business cases, the student's economic experiences and circumstances are particularly important, among which are: the material status of the family, the work situation of the parents/careers, including their running of a business, or the student's own first work experience. A clear understanding allows better matching of different objectives and skills, that lecturers set for their teaching cases.



**Get to know your students well as this will improve your ability to create tailor-made learning experiences appropriate to previous knowledge**

The final preparation step is to find an institutional partner to cooperate with. Ideally, you find an educational partner that shares your view on learning objectives and allows you to develop a learning environment that is supportive for development of students. This involves building an educational team in an inter-university setting.

## **Build your educational team in an interuniversity setting**

To build an effective educational team, lecturers must align on a common purpose. In the context of teaching cases online in an interuniversity setting, this can involve lecturers from two or more universities. This means that the educational team will comprise members in different positions (varying values, beliefs, or attitudes) and with different kinds of knowledge or experience. The challenge is, accordingly, to match the purposes and educational goals of partners, since due to different institutional logics, other student populations, various

preferences and interests of educational programs, or different individual preferences, information, interests, and knowledge, these will be unlikely to overlap. Therefore, lecturers from different universities need to, on the one hand, embed the online teaching case into a course or program of their respective institution, and on the other, match the learning goal with multiple target audiences of students.

Note that merely bringing together various lecturers from different universities, will not necessarily allow you to accomplish both a common purpose, and individual institutional goals. Integrating the educational team requires attention; both from within the team as well as between the respective institutions working together. For instance, significant time and effort needs to be invested into building trusting relationships among various lecturers and staff from different institutions. You need to be able to rely on your partner regarding teaching your students, for whom you are responsible. If direct contact is not possible, organise to have several online conversations with partners to get to know each other well. Based on this mutual understanding, a preferred approach and working style with students can be developed. Make sure that the possibilities and limitations that both parties have in joint remote work are discussed.



**In building an effective educational team, lecturers need to align activities both within and between universities or institutions**

Conflicts may arise because of differences; however, conflict can also provide an opportunity to cultivate cooperative learning. In the process of shaping your educational team, collaborative efforts need to be focused on creating goal consensus both in terms of content and processes, and building trust. Creating consensus regarding the purpose for partners being willing to work together to teach business cases digitally, allows them to become more responsive to each other's individual educational goals. Based on a degree of consensus, it will also become easier to align individual visions on how to develop the team of educators. This is important, since it allows for the creation of a shared learning objective, for instance among educational programs, and in turn provides leverage to break down this learning objective into various sets of learning tasks for students.

## Setting up the online learning environment

To create an online learning environment or platform, lecturers from both institutions must operationalise the joint learning goal(s) into design specifications for the technology. Technology needs to be differentiated into (at least) two types: information and communication technologies. Information technology in general, deals with computing, including hardware, software, telecommunications, and generally anything involved in the transmittal of information, or the systems that facilitate communication, whereas communication technologies focus more on handling communication processes, such as telecommunications,



broadcast media, intelligent building management systems, audio-visual processing and transmission systems, and network-based control and monitoring functions.

Therefore, the online learning environment needs to support the sharing of information, as well as facilitate interaction. It requires provision of multimodal information including text, graphics, audio, and video. This will enable self-paced and peer-to-peer learning within and between student groups.



**Lecturers need to select technologies that fit the learning goals and environment best and not the way around**

An important caveat is that media used are synchronous and convey both paraverbal and nonverbal aspects of communication. It is important, therefore, to match the educational goals not only with the choice of technology used, but also to consider ethics. Particularly the educational objectives of Bloom's taxonomy that are placed on a higher-order thinking skill: like analysis, synthesis, or evaluation, require both a high degree of synchronisation (e.g. streaming) as well as the presence of nonverbal and para-verbal cues (e.g. videoconferencing).

It cannot be stressed enough to double-check whether all prerequisites to using the preferred technology are present; both in the sense of security and safety. This means also being comprehensive and compatible in terms of pooling (educational) resources (e.g. cases and technology), educators, students, and information. Confirm also if educational resources, educators, students, and information can be integrated to execute the digital, international course online.

### **Assessing students in an interuniversity setting**

In online teaching, case assessment differs from traditional case-based approaches. To have a successful assessment it is important to gather before, during, and post course information, on how students are progressing. The digital, interuniversity character of the online teaching cases, however, makes this a more complex endeavour involving various facets (Hewson, 2012, Serrano et al., 2019, Ventura & Quero, 2013).

Students need to reflect on the nature of international digital cooperation; that is how it transpired and how coordination and collaboration challenges were solved or not. Also, reflection on the choice and use of information and communication technology, especially regarding the safety and security of personal data, can act as important levers of digital competencies and awareness building. By including such topics, students are confronted with differences in both cultural and institutional backgrounds, confronting them with ethics. Learning in an international environment may be new for many students, and therefore various communication and intercultural barriers may emerge. This is especially true for students who have not yet had experience of working with students from other universities or countries. This should be considered when assessing students' work. According to the assumptions of the



presented method, the lecturer should not help students in communication and solving the cases, but should intervene when major problems in cooperation appear. The lecturer should also agree with the institutional partner on how to monitor and control students learning progress. Thanks to international learning groups, students can develop valuable contemporary work competencies in various cultural conditions, and improve communication and digital skills.

It needs to be clear that the purpose of an assessment generally drives the way it is designed, and there are many ways in which assessments can be used. The learning objectives developed can provide a guide in this. Assessments are usually created for highly specialised purposes, which also applies to assessment of students on learning experience from digital, international cooperation in solving a business case.



## Checklist

15 steps to a successful online teaching case

Complied

### Setting up teaching case

1. The teaching case is embedded into a course or program of my institution.
2. I understand my students' background and prior knowledge.
3. The teaching case includes a relevant learning objective for my students.

### Setting up the interuniversity relation

4. I have a partner from a different institution to cooperate with.
5. My institutional partner and I align on the learning objective for both student groups.
6. My institutional partner and I agree on the teaching case(s), its approach, and examination format.
7. Our roles during the teaching case process are defined and clear.
8. My institutional partner and I agree on the planning and the timeframe of the teaching case.
9. My institutional partner and I agree on how to the assess learning process and outcomes of different cohorts of students.
10. My institutional partner and I agree on how to monitor and control for students learning progress.

### Setting up the online learning environment

11. My institutional partner and I agree on which learning platform to use.
12. My institutional partner and I agree on which information and communication technology and software to use.
13. My institutional partner and I comply with GDPR, agree on how to transfer data between institutions, and align on ethics.
14. I can provide the necessary technology, software, licenses, and other equipment to students.
15. I can provide (online) accompaniment and support to students.

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