

# TEACHING TOPICS

# BLENDED LEARNING

A STEP BY STEP APPROACH TO BLEND YOUR COURSES

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## INTRODUCTION

*This Teaching Topic is about blended learning. Blended learning is a commonly used term and it has many definitions. Blended learning is an educational approach that mixes online and offline learning and teaching. This Teaching Topic gives you a step by step guide, experiences and best practices to show how to blend your courses.*

## WHY BLENDED LEARNING?

Blended learning should not be a goal in itself. As a very first step, it is important to check whether there are enough/legitimate reasons and support to work with blended learning. An example could be that you want to attract other target groups, such as the professional learner who is not able to come to the university each week. Or a reason from the teacher's perspective, because the teacher is abroad. There are many reasons for choosing blended learning. In *Table 1* you can see some of them from different perspectives.

## WHERE TO START? HOW TO DESIGN?

We recommend a structured approach to find out whether blended learning could reach your goals. In this teaching topic the ADDIE model (see *Figure 1*) to design (blended) education is used. Throughout this process other educational theories are used where appropriate.

*Table 2* describes the objective for each phase, the activities to carry out in each phase, a list with instruments and tools to help you to process the phase and we have added some of our experiences and tips. This list with instruments is available at [utwente.nl/blendedlearning](http://utwente.nl/blendedlearning).



Analyse



Design



Develop



Implement



Evaluate

*Table 1. Blended learning from multiple perspectives.*

### Organization, management and teacher's motivation

- Time gain (please note: designing and developing blended learning solutions is time consuming and gaining time is not always realistic)
- Cost effectiveness
- Reaching an increased number of learners
- Reduced effort on the teacher's part
- Suitable for the organisation's strategy

### Educational / student motivation

- Increased positive learning outcomes
- Increased flexibility for the learner
- The learner is able to organize and manage his/her own study time
- Opportunity to experiment with new teaching methods
- Opportunity to enrich the study material
- Opportunity to engage remotely with the learning material
- Future proof

*Figure 1. The five phases of the ADDIE model.*

Table 2. Description of all phases.



Analyse



Design

	Analyse	Design
<b>Objective</b>	In this phase you carry out several analyses that enable you to make a well-informed decision whether blended learning is the most suitable approach.	In this phase you can define the main learning activities and design a 'blue print or sketch' of your course or module.
<b>Activities</b>	In collaboration with stakeholders you carry out several analyses. Need, context, target group and content analysis inspired by Smith & Ragan (2005). Based upon the analysis you come up with design guidelines.	Based upon the design guidelines you create a blueprint for your course inspired by Van den Akker (2003). You make an informed decision which blended learning activity you can use to reach your goals.
<b>Supportive instruments</b>	Analyse: Questions to start thinking about blended learning. Analyse: Designing guidelines	Design: Basic blended learning activities Design: Design your blended learning blueprint
<b>Experiences</b>	<ul style="list-style-type: none"> <li>Professional learning and development from the University of Twente would like to better align their courses to the needs of the working professional, which is their main target group. The analysis showed that management and the lead teacher are engaged and time and budget was available. System was provided by the University of Twente. This was a good foundation to start with blended learning.</li> </ul>	<ul style="list-style-type: none"> <li>Your choice for blended learning activities is influenced by multiple factors. In the International Course on Rural Energy Planning (ICREP) participants came from abroad and lived in different countries. The first part was online (8 weeks) the second part was F2F (2 weeks). This made it necessary to put effort in creating an online community (through webinars and discussion boards).</li> </ul>
<b>Tip</b>	<ul style="list-style-type: none"> <li>Choose a module or course in which teachers have time and are open to change and innovation.</li> <li>Choose a course which is not subject to change every year and consists of sustainable materials. It should be worth the effort to blend it.</li> <li>Sometimes you feel too enthusiastic to immediately start with developing your blended course. Taking time to analyse is an investment to reach higher quality.</li> <li>Keep in mind that the system is just a container for you learning materials. Based upon your design and analysis a system can be chosen. Ask experts in your organization for available options and support.</li> </ul>	<ul style="list-style-type: none"> <li>To make a coherent course, choose a main activity (e.g. building a portfolio, creating a report, give a presentation) for students to work on throughout the course. The other activities should provide input for this main activity.</li> <li>Try to really integrate the online activities with the F2F activities by making connections and constantly referring to the online part in the F2F sessions (or vice versa)</li> <li>Make sure that the individual learning activities are complete learning chunks (introduction, main part, processing/deepening the content, formative assessment). For example, not just watching a video, but add questions to be answered before watching and end with a quiz.</li> </ul>

**FOR EVERY PHASE, VARIOUS INSTRUMENTS AND TOOLS ARE AVAILABLE AT [UTWENTE.NL/BLENDEDLEARNING](http://UTWENTE.NL/BLENDEDLEARNING).**



### Develop



### Implement



### Evaluate

<b>Objective</b>	In this phase you will realize your design and create all materials.	In this phase you will organize your online environment and run the course.	In this phase you will evaluate the entire course and come up with recommendations. Please note: You will also evaluate during the other phases.
<b>Activities</b>	Based upon your blueprint you develop all learning materials. For each of the materials you follow a step by step approach consisting of analysing, designing and developing your content. Within this teaching topic we only focus on the online learning activities.	Make all the materials available in the online environment. Prepare the stakeholders and run your course! Be actively involved during the running of your course.	During the design phase of your course you also design your evaluation plan. In this phase you execute your plan for each stakeholder.
<b>Supportive instruments</b>	Develop: Create your video script Develop: How to create a microlecture Develop: Screencast quality checklist Develop: Podcast quality checklist Develop: How to create an interactive video Develop: How to create a quiz in blended learning Develop: How to create discussions in blended learning Develop: Organizing group work Develop: How to create and implement webinars	Implement: How to create and implement webinars Implement: Planning your blended implementation	Evaluate: Evaluation plan Evaluate: What to ask during the evaluation?
<b>Experiences</b>	<ul style="list-style-type: none"> <li>During a webinar, a lecturer decided to give a traditional lecture without thinking about the blended possibilities. The result was that evaluation results were negative and students skipped the webinars. Support was lacking.</li> <li>Creating a video takes a lot of time and effort. We schedule the recordings on time but still the videos were only finished a few days before the launch of the course.</li> </ul>	<ul style="list-style-type: none"> <li>During the run of a course the activity in the discussion board was decreasing. Absence of the teacher was one of the causes for this.</li> <li>Organizing a workshop for all the stakeholders gives a shared sense of responsibilities. It also helps to get acquainted with the different systems and tools.</li> </ul>	<ul style="list-style-type: none"> <li>A questionnaire is not always the most useful instrument for your objectives. During the MPM evaluation the focus group session gave the most useful insights.</li> <li>During the MPM we evaluated each individual blended learning activity. We evaluated the contribution to the learning process in order to make improvements for next runs.</li> </ul>
<b>Tip</b>	<ul style="list-style-type: none"> <li>Get acquainted with the tools for the activities. Before developing each activity, experiment with the different technical (software) solutions at hand. We advise the following cycle: Analyse, Experiment, Design, Discuss with expert, Develop, Testrun and feedback, Implement.</li> <li>Multiple training programs on the creation of video types exist and are offered at the University.</li> </ul>	<ul style="list-style-type: none"> <li>Think about how you will deliver the material to the student: part for part or all at once? Both have their own advantages and characteristics.</li> <li>You will always encounter technical issues! Make sure that someone is available to solve this, especially in the first week.</li> </ul>	<ul style="list-style-type: none"> <li>Do not wait until the end of the course. Evaluating during the other phases gives useful insights. During blended learning you will deliver multiple smaller products. These are excellent opportunities for evaluation (e.g. first video, first quiz, review of implementation of materials).</li> <li>Always remember your original objectives. Are they met?</li> </ul>

# Experiences FROM PRACTICE



**MR. C. REGTUIT**  
DIRECTOR @ PROFESSIONAL  
LEARNING AND DEVELOPMENT

Professional learning and development started in 2016 with the design of a blended course. Mr. C. (Caroline) Regtuit, director of the professional learning and development department explains why they want to move to blended learning and how they reflect on the process.

#### **How did you use blended learning?**

We implemented blended learning in a post-academic module of about 10 weeks. We choose to use a mixture of traditional education, online learning and webinars. In the new design participants have to come to the university for 6 days (instead of 10 days). The activities during these face-to-face days were redesigned as well. During the other days, students spend time on their master, with various learning activities to carry out as an individual and in small groups.

#### **Why did you choose to use blended learning?**

First of all, we would like to experiment with this kind of education because of our target group. Our target group consists mainly of professionals between 35 and 55 years. We expect the new generation of learners to prefer a more flexible style of education. We expect that the current students of 20 years will ask for more time and place independent education. We would like to be prepared for this.

#### **What is the added value of blended learning for you?**

The added value for PLD is the new didactical concept and the implementation of technology in our education. There are many more possibilities and activities for blended learning, this is the next challenge for us.

#### **What is your tip for teachers/managers who are thinking about using blended learning?**

Take time for the development of your module and ask for support (educational advisors and technical advisors) of the TELT team from our university. ●

“THE POSSIBILITY TO PAUSE  
AND **TRY-OUT FOR YOURSELF**  
IS NICE AND COMFORTING”

*Anonymous student on an online course*

“PROVIDING WEBINARS APPEARS TO BE **QUITE DIFFERENT** FROM GIVING A LIVE LECTURE.

IT NEEDS **GOOD PREPARATION** AND TECHNICAL SUPPORT.”

*Lecturer using webinars*

## DO YOU ALSO WANT TO BLEND YOUR EDUCATION?

The educational advisor from your faculty (CELT) together with the technology enhanced learning and teaching (TELT) team is available to help you blend your education. For each step in the ADDIE model different assistance is available, apart from the instruments in this teaching topic.



**PROF. DR. M.J. IJZERMAN**

Professor IJzerman gives another reason to start with blended learning. In the text below he explains his motives and experiences in blended learning.

### **Why did you start with blended learning?**

Professor Maarten IJzerman designs a blended course about Decision Making in Healthcare, a course which is offered for the master Industrial Engineering and Management. The main reason to blend this course was because of an international move to the University of Melbourne while still being responsible for this course in Twente.

### **What was the design of your course?**

About 50% of lectures were face-to-face classroom lectures, and the other 50% was through a virtual classroom. Polling, word clouds, ranking and voting were all used to engage students during class. In addition to the polling and virtual classroom, I have recorded several videos. The videos actually intended to get everyone up to speed and guarantee a similar entry level in case of a lack of elementary knowledge.

### **What would you like to improve for the next run?**

For next year, I will look for a better mechanism to align the videos with lectures and either make them mandatory, or better activate students either before or during class to watch the videos.

### **What was an eye opener for you?**

You should be aware that teaching in a virtual classroom requires a little bit of a different skill set as it is more difficult to engage with students. You can't just start a discussion like we are used to in class, so you must find other ways to engage, like polling.

### **What is your tip for other teachers who are thinking about blended learning?**

The only tip, really, is about the videos because they are so time-consuming. Before considering the use of videos you should design or prepare a plan describing how they are used, what content has to be in there, and how to align the videos so they can really support the lecturing. You may decide to do it without decent preparation but you then will end up spending a lot of time recording videos, while this could have been done much more efficiently. ●





## FOLLOW UP ACTIVITIES

This teaching topic was created based upon some experiences with blended learning between 2016 and 2018. The instruments are a first step in getting acquainted with blended learning. The area of activities in blended learning is evolving, as will this toolbox. For example: Instruments with focus on learning analytics, peer pressure and social presence, clustering of learning materials, GDPR and privacy, assessment, copyright and creative commons.

“THINK ABOUT WHAT  
**ADDITIONAL VALUE**  
YOU WANT TO CREATE  
BY BLENDED LEARNING.

USE A MIXTURE OF ALL  
OF THE TYPES OF  
LEARNING MATERIALS  
TO MAKE LEARNING AS  
**EFFECTIVE AND PLEASANT**  
AS POSSIBLE.”

*Dr. Ir. M. Th. van Staveren MBA  
Core teacher Risk Management*

## REFERENCES

- Van den Akker, J. (2003). Curriculum perspectives: An Introduction. In J. van den Akker, W. Kuipers, and U.
- Smith, P. L., & Ragan, T. J. (1999). Instructional design (p. 3). New York: Wiley.

## COLOPHON

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