Barend Last
Stefan Jongen

Boom

BLENDED LEARNING DESIGN

From theory to practice

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Foreword

In March 2020, a new reality hit the education sector that no one could have foreseen. Thousands of teachers had to shift their education online overnight, and lots of students had to study remotely. This unexpected situation had a considerable impact on the quality and organization of education, and a major impact on student well-being. As meeting on campus was no longer possible, teachers had to look for other ways to stay in touch with students and keep them motivated.

This sudden change also highlighted gaps in our knowledge about online teaching and learning. The differences in experience with digital learning environments and digital teaching were vast. For many, designing online education was still an unexplored area. At study programmes with limited exploration of educational technology, educational practices did not change, but were carried on remotely. However, the development of knowledge about online education gained momentum. A major by-product of the pandemic was the enormous knowledge-sharing that took place within and among universities of applied sciences and universities, and in a variety of forms.

With this rich volume, Barend Last and Stefan Jongen make a meaningful contribution to the knowledge-sharing that has arisen. With their in-depth knowledge and experience, they give educators the support they need now and will need in the future. At the heart of the book are the concepts of *blended learning* and *learning design*. In fifteen chapters, the authors elaborate on these two concepts and explain how they are inextricably linked. The strength of their approach is twofold. On the one hand, they pay attention to the vision of learning and offer a shared language; the basic preconditions for arriving at good learning design. On the other hand, they emphasize the importance of *constructive alignment*: designing education in which learning outcomes, teaching and learning activities, and assessment are perfectly aligned. Only when there is clarity about the "what" of a programme, explicating the foundations and priorities, can educators draw up an architect's plan for building a robust house. A house in which students interact with a mixture of teaching and learning activities and learning environments. But also a house in which there is room for a lot of feedback, support, and forms of assessment that do justice to it.

However, a structural change to education in which face-to-face and online education are optimally balanced also requires a thoughtful approach. It is time-consuming and difficult to work on the basis of common knowledge about learning design and evaluate interventions that are new. After the hectic nature of the pandemic, it is important to build in sufficient time for analysis: What

will we keep? What will we get rid of? How are we going to make good choices for our learning design in the future? This requires not only a team effort, but also strong educational leadership. The content of this book offers tools to shape this analysis. A clear vision of learning and a coherent learning design can be used to implement *blended learning optima forma*.

I warmly encourage the reader to delve into this book and to translate it step-by-step into their own practice, taking their present situation as a starting point. Let us all ensure that *blended learning* is not a one-day-fly, but that we take advantage of the many opportunities that exist while maintaining educational quality. Education in which all students are challenged to think, interact, and develop professionally, but above all education in which they remain visible both face-to-face and online.

Dominique Sluijsmans
February 2021

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Introduction

March 16, 2020. In one day, education as a whole in the Netherlands was turned completely upside down. Teachers had to transfer almost all regular education to a fully online variant overnight. And they succeeded: despite a closed campus, education continued. But the first critical opinion pieces soon followed[1]: "Alienation lurks in the virtual classroom", "Good education requires face-to-face contact" and "Students ring the alarm: Online lectures take the soul out of education". The media mainly picked up on concerned teachers and students who felt that something was missing in online education. The message was simple: let's go back to how things were before the pandemic as fast as possible. Face-to-face education, on location, together in the classroom or in practice. Far away from the virtual world.

That the quick fix for remote learning did not turn out well made sense: many teachers had copied their campus-based lectures and activities almost one-to-one into an online environment. This was fine as an emergency solution – there was hardly any preparation time – but not for the longer term. Moreover, the emphasis was often on the formal, qualifying side of education: acquiring knowledge and skills. The social aspect was therefore largely absent. After all, spontaneous meetings no longer took place on location, and cultural and sporting activities were discontinued. Students, teachers, and administrators quickly began to complain about a lack of connection and the way in which education was provided. Some even put online learning in the rubbish. But was that fair? Or was there something else going on?

As far as we are concerned, there is nothing wrong with online learning (see Box 1). The problem was (and often still is) in the starting point for learning design. Online learning is not better or worse than face-to-face learning. It is different, and therefore requires a different approach. And this applies not only to the separate approaches to face-to-face or online learning design, but also to the combination of the two. This combination is called blended learning, in which online and face-to-face teaching and learning activities are optimally aligned. This way, you utilize the strengths of both formats and encourage students to actively engage in their own learning process, both face-to-face and online. However, this can be quite challenging. As a teacher, you are often already faced with a considerable job in designing education for traditional face-to-face learning. The addition of online learning does not make things

1 See NRC (4 June 2020), Dagblad Van Het Noorden (18 June 2020), and Parool (18 June 2020).

any easier, let alone when you want to work towards an optimum combination of both. This book offers tools and strategies for that purpose, and thus provides an answer to the pressing question: how? How do you ensure constructive alignment between the intended learning outcomes, teaching and learning activities, and assessment? How do you connect with your students if teaching and learning take place partly online? In short, how do you design a good *blend* of learning?

Box 1: Online learning or remote learning?

Online learning refers to the situation in which teaching and the learning process take place in a virtual setting, often remotely. However, this is not the same as remote learning. Online learning can be a form of remote learning, but remote learning also includes the situation where students receive books or a DVD with information and assignments, which they go through and return when finished. Online learning can also be a form of *e-learning* but this format also uses ICT without the use of the Internet.

Usually, online learning takes place via the Internet, which can be done in two ways:
- **synchronous**: Participants are present simultaneously, as in a live webinar;
- **asynchronous**: Participants are not present at the same time, as in a discussion forum.

Disconnected

The lockdown in 2020 due to the corona pandemic led to accelerated innovation in education. At the same time, it highlighted an important aspect of our pre-corona education: personal contact. The physical campus facilitated numerous social interactions. With the disappearance of the physical campus, all those countless small and informal social interactions also disappeared. Moments at the coffee machine, lingering after class, or having lunch together and reflecting on what has been learned are informal encounters that – often implicitly – contribute to the entire learning experience. For both teachers and students, the disappearance of these moments felt like a loss of connection.

Does this mean that social and academic integration are not possible within a virtual setting? No, on the contrary. Just think of the world of *online gaming*, where teenagers and twenty-somethings often form friendships that last for years without ever seeing each other. Or what about the world of *online dating*? You only have to watch *MTV's Catfish* to know that people can fall head over heels in love with someone they only know from a tiny screen. So online integration is indeed possible; but as a teacher, you have to make it more explicit and approach it differently in your learning design. Certainly in the case of blended learning, which always includes an online aspect, the teacher needs to create a learning environment that addresses all functions of education and in which students have sufficient opportunities to interact with one another. To clarify this, it is necessary to understand what education is for.

The functions of education

The Dutch professor of education Gert Biesta (2012) states that educational processes and activities usually function in three different areas and therefore have three different goal domains. He formulates these as: qualification, socialization, and subjectification (see Box 2). He argues that it is sometimes quite possible to focus educational efforts on just one of these three domains, but that in fact there is always a 'mix' of all three in education. This means "that the question is not whether we choose qualification, socialization, or subjectification, but that we should ask ourselves which combination is desirable and justifiable" (Biesta, 2012, p. 18). This was precisely the crux of the matter in the spring of 2020: the design for online emergency teaching and learning hardly paid any attention to socialization and subjectification. Logically, as there was no time for a thorough redesign. But in well-designed online or blended learning, social interaction between students and with teachers is crucial for study success (Akyol & Garrison, 2008; Arbaugh, 2008; Richardson et al., 2017).

Box 2: Functions of education

Qualification
Basically, qualification is about acquiring the knowledge and skills to be able to do something. By 'something' you can mean anything: specific things like a profession, a technique, a skill, or more general things like learning about the history of a certain culture or knowing numbers.

Socialization
The domain of socialization is about preparing students for their lives as members of a *community*. Being part of certain social, cultural, and political 'orders', in other words: society. Values and relationships are central to this. And as part of such *communities*, the student not only adapts, he or she helps shape them.

Subjectification
Finally, there is the subjectification function of education. Subject is the opposite of object; when a person is seen as an object, he or she is a thing that is subject to what others want to do with that thing. Being subject and subjectivity thus refer to a situation in which every human being is seen as a self-acting individual. In a certain sense, it is the opposite of socialization. After all, it is not about bringing newcomers into certain existing communities, but about the way in which the individual is more than 'just' one of the members of that community. It is therefore about creating autonomous and independent thinkers, that know how to relate to their own freedom in the world and that of others.

The functions of education in learning design

While qualification is the main reason for the existence of formal education, education always has a socializing aspect as well. This is emphasized in research into the informal, hidden curriculum, which means that education always has unintended learning effects as well. For you as a teacher, it is therefore crucial that your learning design pays explicit attention to addressing these various functions of education, especially when it takes place largely online. In blended

learning, you facilitate this by, for example, working with small student-centred learning teams – also known as community learning – in which you motivate students to interact and actively participate. This is covered later in the book.

But addressing the subjectification function of education is also essential. This is for example relevant to the way in which you approach learning outcomes. The emphasis here is often on domain-specific knowledge, while attention must also be paid to skills that contribute to subject development. Think, for example, of metacognitive skills, i.e. the knowledge and skills of students to organize, direct, and control their own thinking, acting, and learning. Examples of these are acting autonomously and thinking critically. When integrating this into your learning outcomes, it will also be more present during your teaching and learning activities. Furthermore, for some elements of subjectification it is simply not possible to account for in your learning design beforehand. It comes down to your quality as a teacher to assess situations and to respond adequatly to them. For example, it could very well happen that in practice you completely deviate from the preconceived design and create an even more valuable life lesson that you could not have foreseen. And this is perfectly fine – or even necessary.

What is this book about?

Starting from the premise that education is more than just the transfer of knowledge and skills, and from the need for better designed blended learning, in this book we translate prevailing insights from the scientific literature into practical strategies for learning design. Many of these insights are not only applicable to blended learning, but to all forms of education, whether online or face-to-face. However, we try to relate it as much as possible to maximizing the use of all learning environments in combination with addressing all the functions of education. We focus primarily on lecturers in higher education, but our insights may also be useful to teachers from vocational education (mbo) and secondary education (vo) or even primary education (po). The book is structured in five distinct sections, from theory to practice.

THEORY

Section 1: Blended learning design

Before a teacher can get started with blended learning, it is first necessary to have a good understanding of the theoretical basis that underlies this sometimes ambiguous concept. **Chapter 1** therefore frames the concept of blended learning from a theoretical perspective. We identify advantages and disadvantages and challenge persistent misconceptions. Then, in **Chapter 2,** we outline the two principles that guide learning design, which form the remainder of this book: (1) the layers of learning design and (2) the *constructive alignment principle*.

Section 2: The basis of any learning design

There are three layers on which learning design can be analysed that give direction to the design process:

1) the underlying educational philosophy, based on learning theories;
2) the resulting theoretical learning design principles;
3) the techniques, i.e. the practical methods and didactics, such as activating strategies.

This section deals with the basis of learning design: the underlying educational philosophy and the resulting learning design principles. In **Chapter 3,** we first describe the main learning theories on which educational philosophies are based. Not one of them is 'the best', but what is paramount is that the student is central to blended learning. An educational philosophy is often made explicit in a clear vision of teaching and learning. However, this does not make such an educational philosophy a good adviser for designing in practice. For this, it must first be translated into effective learning design principles. These principles will be discussed in **Chapter 4**.

PRACTICE

The practical elaboration of the third layer of analysis for learning design, the techniques, takes place in the remaining three sections of this book and is based on the *constructive alignment principle*. This principle assumes that in any learning design, you must seek a constructive alignment between the intended learning outcomes, the teaching and learning activities, and the assessment. You use these three elements to work out the theoretical basis of any learning design in practice.

Section 3: Learning outcomes as a starting point

This part of the book deals with intended learning outcomes. In **Chapter 5,** we explain why learning outcomes are always the starting point for any design or redesign. Then, in **Chapter 6,** we describe what learning outcomes should ideally be about, and we illustrate what can go wrong if you place too much emphasis in your design on domain-specific knowledge, i.e. knowledge that is relevant to a particular situation or problem in a particular discipline. Formulating good learning outcomes is a skill in itself. Particularly when designing online or blended courses, in which teachers sometimes need to switch quickly from a largely face-to-face to an online or blended situation, it is essential that the learning outcomes are correctly written or adjusted. **Chapter 7** therefore provides guidance on how to create learning outcomes in three different behavioural dimensions and how taxonomies can support this.

Section 4: Teaching and learning activities in the student journey

This section deals with teaching and learning activities and the strategies, learning spaces, and tools that can be used. First of all, in **Chapter 8,** we look at the idea of community learning, which plays an important role in blended learning. This is done according to the *community of inquiry model*, which we translate into concrete tips for creating a rich learning environment that does justice to all the functions of education. Then, in **Chapter 9,** we deal with the design of a course structure adapted to its users: students. In **Chapter 10**, the real student journey begins. We describe how you can work from the designed structure towards the student journey: mapping out a path full of teaching and learning activities, both synchronous and asynchronous, and both online and face-to-face. At the end of the chapter, we zoom in on activating strategies for face-to-face and online learning that you, as a teacher, can use during the teaching and learning activities. This overview can be used primarily as a frame of reference. Common strategies such as lectures, work groups, and feedback assignments are reviewed. **Chapter 11** also looks at the learning environment, i.e. the virtual and physical space in which the student learns. As a teacher, how do you design these spaces to elicit certain desirable behaviour? And how can you attune virtual and face-to-face spaces to each other in such a way that they become extensions of each other? Finally, **Chapter 12** looks at ICT: what types of hardware and software are there, and how can you make the right choice from the multitude of possibilities?

Section 5: Assessment

Last but not least, in Section 5 we explain how you can use assessment not only to determine whether students have achieved the learning outcomes, but also as an opportunity to support the learning process for students and as input to adjust your teaching. In **Chapter 13** we will therefore first discuss the difference between assessment with summative decision and assessment for formative evaluation. Central to this is the message that summative and formative are not characteristics of an exam itself, but of the decision that you take on the basis of the results of that exam, i.e. the consequence. We outline how testing often focuses on summative decisions. This aspect has led to numerous problems in education during the 2020 lockdown. After all, how can teachers test knowledge on a large scale and uniformly remote? And is that even desirable? We argue for more formative evaluation, focusing on the student's learning process and using assessment as a learning strategy. And that means a different approach to assessment. **Chapter 14** therefore describes the most effective strategies for formative evaluation and how you can use them in a blended learning environment. Finally, in **Chapter 15,** we discuss how you can also use study data to adjust the learning content and your learning design. In other words, to get a better grip on your educational practice.

Final words

In the closing argument, we briefly discuss a number of preconditions and ideas for consideration when implementing blended learning in practice. Designing great learning opportunities is a time-consuming and challenging process in which choices have to be made depending on the characteristics of the students, their preferences, and the (im)possibilities of the institution where you work. Think about the availability of didactic and technical support and a digital learning system. We will briefly go into the difference between designing and implementing education. We will also emphasize the importance of continuously evaluating your learning designs in an iterative process, using insights from science (*evidence-informed* education) in order to keep your learning design up to date and flexible.

How to use this book?

Blended learning offers countless opportunities to make teaching and learning even better, if well designed. It is therefore essential that you, as a teacher, create an optimal learning environment that makes optimum use of both the face-to-face and digital learning environments. At the end of most chapters, therefore, you will find an assignment, linked to various tools and worksheets in the annexes, that will help you in your design process. We hope that this book offers a reference work for this: one which will always be on your (digital) desk when designing and developing education.

Teaching can be done in many ways: in a group or individually, face-to-face or online, synchronously or asynchronously. Each of these ways requires its own approach. When you know how to combine them in the right way, you enrich the student's learning experience. That combination is called blended learning. Activating strategies and maximizing interaction with the help of technology are essential. But what is the best blend and how do you design it?

Blended learning design answers a number of pressing questions. How do you ensure constructive alignment between intended learning outcomes, teaching and learning activities, and assessment? How do you connect with students when teaching and learning takes place (partly) online? And how do you leverage the strengths of face-to-face and online learning into one harmonious whole?

This book can be used both in the design phase of education and during a course. It offers a practical translation of theory and contains numerous inspiring examples. These examples come primarily from higher education, but are also suitable for other fields of education. In short, a must have for anyone involved in teaching, learning and educational design.

Every teacher, regardless of whether or not they want to 'do something' with blended learning, should use the step-by-step approach to educational design described by Barend Last and Stefan Jongen.
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I'm happy to read that the authors encourage teachers to experiment. I wish every teacher would have that opportunity.
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