

# DOUBLE BLENDED LEARNING FOR DESIGN STUDENTS & DESIGN PRACTITIONERS

Annemiek VAN BOEIJEN  
Delft University of Technology

## ABSTRACT

This paper presents insights from a new course format, in which design practitioners from all over the world participate online together with master's design students, who work both online and offline. This case study shows that such a double blended form of education is motivating and successful for both groups. Also, the highly international character of this format benefits the learning content well. The online key-term tool is well received. The interaction between practitioners and students via video conferencing and peer feedback is appreciated from both sides.

*Keywords: Online design education, blended learning, culture sensitive design, cultural encounters*

## 1 INTRODUCTION

In today's digitalising and rapidly globalising world an increasing number of people, both scholars and professionals, use the internet for education. The reported benefits are among others effectiveness in educating students, usefulness in enabling life-long learning, cost-effectiveness, and access to world-class learning for those who are connected to the internet [1,2,3,4]. Since 2013, we have gained positive experience in massive open online courses, the so-called MOOCs. Additional advantages reported by educators are the motivation to make a quality improvement of educational materials, the exposure in the faculty and abroad, and a useful investment in terms of efficiency when reusing lectures and material in reruns. However, there are also concerns, such as an uncertainty about the return of investment, since the development of such courses is costly, and it is not clear how long they are suitable for reruns and/or flexible enough to update. A solution is to use the course for different purposes, for example, to offer MOOCs to new international students as an entry criterion and prepare preparation for master tracks. Another one is to develop off-line paid master's classes for practitioners into paid online versions. A new idea that is in line with this thought of maximising the benefits is to develop the master elective *Culture Sensitive Design* into a double blended course for both design practitioners as well as master's design students.

I expected that the course would give a mutual benefit. The advantage for working **design practitioners** could be the opportunity to learn and benefit from these master's students' work; the reflections on design, their application of the theory provided, and their use of a range of methods. Furthermore, they could save time in their practices as they have the opportunity of pitching a design challenge that the master's students could choose to work with during the course. In addition, the students' fresh perspectives on 'what design can do' would help them to discover new possibilities for new product and service design.

For the **design students**, I assumed that the combination of online and offline would motivate them to follow the course and stay on track. The regular activities, such as weekly lectures, templates, and discussions on the online forum were intended to guide them clearly and discourage postponements. Furthermore, I expected that contact with professionals would broaden their scope and support them in building their network.

For **design educators**, I expected this format could be an efficient and effective way to teach. The video lectures – partly given by invited speakers – would motivate the educator to prepare and record with a quality that allows for reuse. Hence, the investment made for the development of the course material could be justified. Usually in courses guest speakers are invited to talk in class. Every year these guest lecturers are invited, or new lecturers need to be found, which is often time consuming,

and does not always justify the effort needed to prepare and lecture for a small number of students. A blended solution would also be a great motivation for educators to improve their work.

Finally, I thought that the topic of the course *Culture Sensitive Design* would fit well in an online course, where people are able to join from different parts of the world [5]. Exchange of knowledge and experiences will be possible and very useful for a good understanding of how cultural sensitivity could be developed and useful applied by designers.

This paper reflects on the new format for online and offline design courses. The aim of this case study is to discuss the barriers and possibilities for double blended design education.

## **2 THE COURSE**

The course was designed for and geared towards 20 working design professionals from all over the world and 30 masters design students - with various nationalities - from our faculty, who want to learn about culture-sensitive design.

### **2.1 Content - Culture Sensitive Design**

The overall learning goal was to gain insights into *why* culture is relevant for designers, through *what* lenses they can understand the concept of culture, and *how* they can explore culture and apply the results to their work. The learning objectives were specified as: *Identify* culture and its role, both from a personal and professional perspective; *Recognise* and understand cultural terms; *Reflect* on the influence of culture on individual and collective identity; *Provide* personal examples of the terms used during the course; *Determine* opportunities for applying culture as a tool while designing; *Integrate* cultural tools and theory into a design project; *Judge* the use of the cultural approach in other projects; and *Apply* cultural theory in design. The last learning goal was for master's students only since I assumed that the design practitioners would not have the time to apply theory in a design assignment.

### **2.2 Development of the course**

The chosen platform to run the course was similar to the platforms that were already used for MOOCS and professional courses. The development of the course started one year before execution and most activities (recording (guest) lectures, interviews, and other course material development) were executed within three months before summer holidays with: the instructor, three student assistants, and a learning developer for open, blended and online learning. The marketing and communication to recruit participants through social media and newsletters started three months before the course opened.

### **2.3 Structure and approach**

The course lasted 9 weeks, plus an introductory week 0; the design practitioners joined the first 6 weeks and week 9, and the design students all weeks. Each week new activities and materials were available, in total: 8 lecture-videos on cultural theories; 3 guest lecture-videos from experts in practice; 15 assignments with templates for uploading; 4 expert interview videos; 6 quizzes to assess the learning through videos; literature and links to relevant and inspiring videos; an online card set [6]; a discussion forum to share results, questions, and opinions; 2 instructor videos with feedback on uploaded work; and final presentation videos from design students for the design practitioners. The physical offering of a card set in the form of a box of cards was an unusual touch devised to enhance a connection between the online and offline world, intended to create a boundary effect [7]. A new in-house developed feature was a *key-term booklet tool*. Participants were asked to fill in templates to learn about key-terms (13 in total) used in cultural studies, such as *acculturation*, *culture shock* and *global culture*.

A template entailed the key term, a definition, and the participants' personal example, illustrated with a picture and explained in text. After uploading a template, the participants were able to see each other's work and vote for the favoured one in its category. In the last week of the course the computer system generated PDFs for their personal booklet and one with the most voted key terms, see figure 1 for an impression of the feature. In a second run of the course, the technical support for this feature could not be continued and was replaced by a commercial platform. In this system the voting feature could not be implemented.

The first 5 weeks were mainly dedicated to theory, from week 6 to week 9 the design students worked on an individual project: the design of a cultural ritual. They were asked to choose a context and

culture specific values that they wanted to nurture with the ritual. Figure 1 (right) shows an example of the poster that presented their preferred values and the ritual design. The students could either choose a design challenge formulated by one of the design practitioners, or they could develop their own design challenge. Every week the design students and instructor met in class for about three hours, doing assignments and discussing theory and intermediate results. Three student assistants moderated the activities on the discussion platform, answering questions from participants and sharing examples and other comments to motivate the participants. To be able to distinguish design practitioners from the students on the platform, the students were asked to start their user name with the faculty abbreviation.



Figure 1 (left and middle) An impression of the key term booklet tool (right) Example of the ritual designs presented in a poster - designed by Sam van Eijk

### 3 APPROACH AND RESULTS

During the course, participants were asked to give online feedback via an online pre-, a mid-, and a post-questionnaire. In the first run (2017-2018), in class the author of this paper discussed offline the barriers and possibilities of the approach with the master's students, and three weeks after ending the course they were asked to fill in a short survey, asking them their opinion about conclusions regarding improvement of the course. Furthermore, one week after completion of the online course, the approach was discussed with the instructor, online learning developer and moderators (three student assistants). A member of the online supporting staff of the university interviewed the course instructor (author of this paper) about her experience by and the transcription was used for evaluation. The second run (2018-2019) was evaluated less intensive. The offline students were asked to reflect on the learning goals in a one A4 page text as part of their final report.

#### 3.1 Participants and their course results

Table 1 gives an overview of the participants and their cultural backgrounds, based on their nationalities (The author is aware of the limitations of this categorisation). In the first run the design practitioners' enrolments were based on an application form. This was to check if they had a background in product and/or service design and not scholars. Their working experiences ranged from 1 to 20 years. However, for the second run it was decided to skip this application requirement, because of limited support for processing it.

In the first run one practitioner did not start the course due to personal problems. Another one quit the course a few weeks before the end, basically because the course did not meet her expectations, but it seemed that she also had problems with the language. One student also did not finish because of personal problems, and two because of time constraints due to other obligations. The practitioners who finished the course all passed. In the first run students finished with a high online grade (average of 9, ranging from 6,7 to 10). However, their final and official grade was lower (average of 8, ranging from

7 to 9). According to the faculty rules, the official grade had to be based on their offline deliverables, which were a report, poster, and reflection. In the second run the students were less active online (average of 7, ranging from 3,4 to 10). Also, the practitioners scored lower (average of 7, ranging from 5,6 to 9,4). However, the interaction with the design practitioners was higher, because more design students worked on a design challenge proposed by design practitioners. They organised online video conferences to meet and discuss the design assignment.

Table 1. Overview of the participants and their results

|  | national backgrounds   | enrolled | finished | passed | average grade         |
|--|--|----------|----------|--------|-----------------------|
| <b>1<sup>st</sup> run (2017-2018)</b>          |  |          |          |        |                       |
| <b>design practitioners</b><br>9 nationalities | India (3), Lithuania (1), Netherlands (3), Italy (1), Spain (1), Peru (1), Great Britain (1), New Zealand (1), South Korea (1)       | 13       | 10       | 10     | 8                     |
| <b>design students</b><br>10 nationalities     | Colombia (1), Netherlands (9), German (1), Brazil (1), South Korea (1), Poland (1), Iran (1), Indonesia (1), Canada (1), China (1)   | 18       | 15       | 15     | 9 online<br>8 offline |
| <b>total</b>                                   | 17 nationalities   | 31       | 25       | 25     |                       |
| <b>2<sup>nd</sup> run (2018-2019)</b>          |  |          |          |        |                       |
| <b>design practitioners</b><br>6 nationalities | Colombia (1), Iran (1), Netherlands (4), Turkey (1), Japan (1), Luxemburg (1)  | 9        | 6        | 6      | 7                     |
| <b>design students</b><br>11 nationalities     | China (10), Taiwan (4), Turkey (2), Spain (3), India (2), Italy (1), Rumania (1), Croatia (1), Denmark (1), Mexico (1), Thailand (2) | 35       | 35       | 35     | 6 online<br>8 offline |
| <b>total</b>                                   | 15 nationalities   | 44       | 41       | 41     |                       |

### 3.2 Participants' feedback

The first run has been most extensively evaluated. For the second run, the design students' written reflections were used.

#### 3.2.1 Participants' feedback 1<sup>st</sup> run

In the mid-survey in week 4, participants were asked how much they enjoyed the course. They scored an average of 8 (out of a 10 point scale, n=12). The post-survey, filled in by 10 participants, showed that they were positive about the **content** (interesting and unique). An answer on the question what was considered most valuable was: *'How culture expresses itself in so many different ways and on many different levels. Many things we don't perceive as culture in day-to-day life are part of it. And so, without noticing quite often we design something which really mostly works in our own culture.'* Also, the **card set** was appreciated as a useful tool. On the answer what to improve one answered: *'Better interaction between full time students and practitioners, workload was a little heavy for me working part time'*. The **difficulty level**, the amount of work, and the breadth of topics were mainly considered as about right. For the **length** of the course there was less consensus; 2 participants mentioned that the course was too short, 5 about right, and 3 too long. The average **study load** was 5,8 hours, ranging from 3 to 8 per week (I planned 4 hours per week for the design practitioners and 8 hours per week for the design students). Weekly new lectures, materials etc. helped participants to plan their work, and limited the **peaks in time**, which was very much appreciated, since they encounter often problems with this because deadlines of parallel courses. For the timing of opening new weeks the students would like to open earlier: on Fridays so that students can plan better when they watch the videos (before their offline meetings on Wednesdays). The **video lectures and interviews** were received as very valuable. They also expressed the importance of **sharing** and discussing personal stories, application possibilities in practice, and peer feedback. The students expressed the **usefulness of having practitioners** in the course for various reasons: future jobs, perspectives from outside university, professional vision in the topics, interesting and fresh insights in the key terms and discussion forum. The students would have had more input about the cultural challenges from practice. Surprisingly, none of the students has chosen a **design challenge** formulated by the design practitioners. They all developed their personal one. Overall the new **key term tool** was appreciated. One student stated in his report: *'I really enjoyed the key terms assignments, and I was always trying to give examples from my own Brazilian culture. I think it's also a good way to spread a bit about each one's culture and take out some stereotypes about it.'* And some other answers from the

final survey among the students: *'When seeing that none of my key terms made it to the best voted booklet, it made me feel like I had "lost", or that my key terms were irrelevant or unworthy.'* And: *'Not everything is there when you vote so sometimes you give the three first assignments votes. Also, when stressed I sometimes did not read all the others and just voted randomly. The tool was also not very user friendly in order to get people to take a look first and then vote.'*; *'I could understand better by looking at other most voted examples.* Specifically, the students mentioned barriers about the **platform**, which was not user friendly and outdated, and frustrating because they were using over more than six different platforms, such as Blackboard, Brightspace, and Project Campus. However, there were also students mentioning that every new platform has its pros and cons, *'you just need to get used to it'*. Some students suggested to use face to face means (videoconferences, video diaries, vlogs) to connect more with the practitioners. Overall the course was evaluated positive. A senior design practitioner: *'I thought it was a fantastic course, I learnt a lot which I will apply to my work.'*

### **3.2.2 Participants' feedback 2<sup>st</sup> run**

For the second run some insights from the first run were used to improve the course. Some quiz questions were improved. The opening of a new week moved to Fridays so that students could already watch lectures during the weekends. The key term tool changed; as stated earlier the voting part could not be implemented due to the use of another platform. And the design students were stimulated more explicit to choose for a design challenge pitched by the design practitioners.

From the reflections of the design students on the learning goals we learn that still the key term assignment was still very useful and appreciated *'Amazing things also be heard in these intense 9 week ... how other students interpreted the key terms from their own stories, I had to admit that I have a lot of fun to watch fellows classmates' key-term assignments every Tuesday night. I loved the video lectures, you could watch them all at your own pace and when it suits you schedule. Rather than the practical pro, it was also really interesting to have lots of variety in the types of lectures and topics. It was nice to be able to listen/watch different professionals from the field in sharing their knowledge. This helped me figuring out how cultural sensitivity could be used in real projects and life.'* Most feedback was very positive, though a few of the reflections were also critical. *'Regarding to the course organisation the fact that a big part of the content, especially the theory, was online was not so positive in my opinion. The reason is that when watching the video there are certain doubts that are not solved at the moment and even if there is the forum where you can ask I believe that more interesting debates might have sparkled if these situations would happen while everyone is present. Therefore, having such an important part of the course online did not help to increase the participation in class.'*

### **3.3 Feedback from instructor and organisers**

In the first week of the first run the instructor had doubts about what to do offline in class; *'Do I repeat some parts of the online lectures or can we just start discussing the content?'* This was not thought out in advance. Finally, the solution to start one hour later, giving the students the opportunity to prepare in advance worked well. Furthermore, it was challenging to pay equal attention to both target groups. For example, in weekly updates it was easier to address experiences from class, but practitioners could feel ignored, so this attention needed to be carefully balanced.

## **4 IMPLICATIONS FOR FUTURE WORKSHOPS**

Question for this exploration was: What are barriers and opportunities for a double blended course, where online design practitioners learn together with students who participate online and offline?

### **4.1 Discussion of the results**

The evaluation shows that overall the course was successful. Both design students and practitioners were motivated and positive about the content. The new format was also perceived as positive. As I expected, this approach suited the content, for example the need to exchange experiences that helps to reflect on and understand about personal, cultural, and universal aspects of human behaviour.

As the course is at master's level and part of an offering of three faculty master's, initially it was quite challenging trying to establish the right balance for campus delivery: would the students have taken some of the course modules prior to coming to class? Did the instructor then need to skip certain explanations and go directly to the discussion? But finally, the course offered enough variety to suit all

participants' wishes. From the evaluation I, therefore, conclude that it is useful and motivating to include design practitioners. In the second run, the interaction between target groups was intense enough. The discussion platform was inviting and struggles with the usability of the system in the first run were overcome in the second one. Solutions to increase the interactions by organising face to face sessions through, for example, video conferences worked well. The new *key term tool*, even without the voting feature and booklet worked well too.

## 4.2 Implications for future workshops

Points of attention are the different time zones of the practitioners and privacy. Quiz questions could have been more open so that answers can be shared and discussed, instead of the easy to answer multiple-choice questions. Furthermore, peer feedback and game elements could be added. From the evaluation I conclude that it is possible to motivate students to work on design assignment from practitioners as long as they bring in these assignments in time. The students do see a value in working for the practitioners, but at the same time they enjoy working on their own projects. Our concern was the quality of the practitioners' assignments; would they be interesting and suitable enough to work on? From the experience we have now I conclude that we can expect enough quality.

Content wise discussions, interactions and feedback are key to understanding the complexity of culture sensitive design.

## 5 CONCLUSIONS

Although the development of such a course takes a lot of time, it seems to be worth the investment. It appeared to be a great motivation to bring the course material to a higher level. One cannot be sloppy online; every detail needs to be accurate. It is akin to publishing a book: you need to be precise in everything. Developing online education has improved the instructor's own understanding of material and how to present it more effectively. Looking to the future, I see that online offers the advantage of establishing contacts all over the world and really test ideas with others, exchange opinions and introduce new concepts. With this paper, I hope to contribute to this international perspective.

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