Restricted education on campus: a blended-learning scenario

In a relatively short time, the Corona crisis has changed our (academic) world as we know it. Many of us have already transformed their course into an online-only variant. Although measures are expected to be eased in the coming months, it is highly likely that large-scale on-campus activities in semester 1 will still not be possible. All teachers with courses in semester 1 of the coming academic year, therefore should modify their education such that it fits with on the one hand a format where the majority of activities is done online with only small-scale interaction on-campus. On the other hand, if regulations do not allow this, it should be easy to move all the activities online. Using a *blended learning* approach to designing your course facilitates both scenarios.

Blended learning is a broadly used, container-like concept. It is best defined as "the thoughtful integration of face-to-face learning experiences with online learning experiences" (Garrison & Kanuka, 2004, p. 96). Blended learning is placed on a continuum between complete classroom face-to-face education and complete online education (Spanjers, Könings, Leppink, & Van Merriënboer, 2014). Standalone online instruction is not significantly more or less effective than face-to-face instruction (Lack, 2013; Larson & Chung-Hsien, 2009), however, if integrated and implemented *thoughtfully*, blended learning can cause an improvement in the desired learning outcomes.

More importantly, when designed 'blended', a course is protected against uncertain circumstances. Face-to-face does not necessarily mean *physically* face-to-face; one can also think of online alternatives that facilitate personal contact (e.g. live web lectures, individual (skype) calls, discussion boards). Or organized in small subgroups, if meeting in groups bigger than a certain scope remains impossible. In case education on campus is possible again, face-to-face elements can be carried out on location, if not; face-to-face elements will be online.

However, crucial is teacher's positive attitude towards rethinking and redesigning their course that places the students in the center of their learning process (Jeffrey, Milne, Suddaby, & Higgins, 2014). Online teaching is more than just replacing existing course components with online counterparts. It requires to rethink course activities, especially in how they contribute to the learning process of students. To this end we list a few recommendations, which are based on educational research literature.

1. **General. Transferring educational practices towards an online setting is mainly useful when it takes place as some form of <u>interactive</u> learning**

Castaño-Muñoz, Duart and Sancho-Vinuesa (2014) compared the effectiveness of the use of online individual learning with the use of online interactive learning. Whereas individual learning is mainly defined as activities that involve looking up and consuming course materials online, interactive learning was primarily defined as activities that involve online communication and cooperation with others. They found a significant improvement in the learning outcomes only for those that were involved with online *interactive* learning.

A general principle is that individuals learn best when working together with others during joint collaboration, and it is through such collaborative endeavours with more skilled persons

that learners learn and internalize new concepts, psychological tools and skills (Vygotsky, 1978). With interactive learning, challenging activities and elaborative (peer)feedback are key (Miller 2010). When redesigning your curriculum, try to think of intermediate assignments that encourage students to think and work with the study material actively. 'Assignments' can vary from very extensive essays to small intermediate questions during a lecture. Assignments can either be summative (quantifying learning output can push students towards active learning) or formative, where in both providing elaborated and specific (peer)feedback afterwards is essential. (Peer)Feedback ideally takes place *before* the final assessment of your course, so the opportunity for improvement (and therefore learning) is given.

Practical tools for enhancing online interaction the VU offers:

Canvas Discussions	Using SpeedGrader for providing feedback on (intermediate) assignments
Canvas Groups	Using study groups with Perusall for close reading
Canvas Collaborations	Peer review assignments
Canvas Chat	Using break-out rooms during online lectures in Zoom to facilitate group discussions
Mentimeter	FeedbackFruits

2. Tutorials. Face-to-face education stripped to the essentials: <u>The Flipped Classroom</u>

An often used and studied educational practice, that is considered a form of blended learning, is the *flipped classroom.* The core idea revolves around flipping the conventional approach: instruction is now accessed at home, prior to class (e.g. a lecture, knowledge clip or other preparatory material), while class becomes the place to work more in-depth with the topic (e.g. problem-solving, discussions, case studies, interactive assignments, etc.) (Tucker, 2012). In this way, classwork time can be used more effectively and creatively, teachers have a better insight into the learning process of their students and teachers can more easily support their students individually (Fulton, 2012). Typically, this instruction can take place online, giving students access to instructional videos or introductory literature on the topic.

The method of the flipped classroom enables opportunities when (non-virtual) social contact is minimized or even absent. It provides a framework for deciding which learning activities can take place online (instruction, introduction to the topic) and which learning activities should be essential for keeping them synchronous/face-to-face (in-depth processing, individual support). In the educational context of the VU, this will mainly imply tutorials; as this is where classwork takes place. Lectures are mostly instructional and involve larger groups which makes it harder to facilitate in-depth discussion and personal support.

Practical tools offered by the VU that can support a flipped-classroom approach:

Using study groups with Perusall for close reading (as a preparation tool for students)	Using Kaltura or MyMediaSite for recording online instructions
Using Zoom for online, synchronous (live) tutorials	Using Google Meet for online, synchronous (live) tutorials
Using Canvas Conferences for online, synchronous (live) tutorials	

3. Lectures. Web Lectures with <u>activating elements</u>

Does this mean that lectures can be transferred to a completely online environment, as they are mainly instructional and introductory? Ideally, yes. However, some adjustments are crucial. We know that mind wandering can impair learning because of a loss of concentration. Mind wandering appears to be even more tempting during online lectures, but can be prevented by the integration of intermediate, activating elements (Schacter & Szpunar, 2015). To facilitate interaction, one can also try to link media sources to supporting texts, discussion boards, chats, resource links, self-assessment quizzes and so on. Studies on lectures that indeed did integrate activating elements, found a positive effect on the learning outcomes of the students (Szpunar, Jing, & Schacter, 2013; Scholten et al., unpublished data; Thornhill, Asensio & Young, 2002). Therefore, if we want to enrich our already existing practices, let us try to think of forms that facilitate deep learning. Ideally by cutting web lectures into smaller, feasible parts by intermediate, activating questions.

Practical tools offered by the VU that can support activating elements in web lectures:

Using Kaltura or MyMediaSite to prerecord lectures with intermediate questions	Using Canvas Quizzes at the end/during or before a lecture to activate knowledge
Using Mentimeter for activating questions	Using break-out rooms during online lectures in Zoom to facilitate group discussions

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