

TU Delft Teaching Academy Meat & Eat

Blending my campus course using online materials

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- Blending my campus course
- Evaluating my blended course
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Questions to kick-off

1. Who are you?

- **Teacher/instructor** with plans to blend parts of your own education material
- **Coordinator** with plans to design a blended campus course
- **E-learning developer** with need to be informed about the execution of blended (TUD) courses
- **Policy makers** with the need to be informed about the implementation of blended learning policy
- Other...

2. What is the biggest challenge in designing and running a blended course?

- **Incorporating flexibility** for learners to follow their own learning path in the course
- **Stimulating interaction** between students and between students and teachers
- **Facilitating students' learning processes** with activities that work for both high and low achieving students
- **Fostering an interactive learning climate** which enhances the motivation to learn
- Other...



01

Challenges in blended learning: a literature review

Challenges in blended learning

1. Incorporating flexibility

- **Learners having control** over the content, learning sequence, pace, time, place, and path (Bonk et al., 2006; Ruiz et al., 2006).
- In blended learning environments it is often impossible to let students randomly choose and study a topic and follow their own '**learning path**'. Especially true for structured blended campus courses offered with a **limited time period**.
- A way to deal with this inflexibility is to enable students themselves to choose between **weekly or topical participation online and F2F modes** (Beatty, 2014).
- Flexibility can best be implemented and achieved (Kineo & The Oxford Group, 2013; Ma'Arop & Embi, 2016) by **giving students the flexibility to choose learning activities in a more random order**.

Challenges in blended learning

2. Stimulating interaction

- Both **student-student and student-teacher interactions** in blended courses are somewhat difficult to organize in the online component of blended learning environments (Owston et al., 2013; Okzan & Koseler, 2009).
- Online learning environments can lead to enlarged psychological and communication space, called the '**transactional distance**' (Moore, 1993; Chen et al., 2014).
- Social interaction is therefore generally stimulated through **introducing face-to-face meetings** (Boelens et al., 2017), and to a lesser degree in the online learning environment.
- Nortvig et al.(2018) indicate that **educator presence in all online learning activities is paramount**, and particularly useful in videos for cultivating students' interest in the topic under study (Southard et al. (2015).
- Also **peer-to-peer online activities and individual instructor feedback** increases the satisfaction and **sense of community**, potentially decreasing transactional distance, and improving **learner engagement** (Halverson & Graham, 2019).

Challenges in blended learning

3. Facilitating students' learning processes

- Due to the increased flexibility and autonomy of learners in blended learning environments **self-regulation becomes a critical factor for study success** (Barnard et al., 2009).
- Participation in blended learning courses require **organization, discipline, time management, skills in using technology and self-efficacy** to control their own learning process (McDonald, 2014).
- This is naturally more found in '**high achievers**' than low achieving students that have difficulties with independent learning (Owston et al., 2013; Tsai & Shen, 2009).
- Vermunt and Verloop (1999) argue that this challenge can be dealt with by instructional activities that follow **four regulative strategies: orienting and planning, monitoring, adjusting and evaluating** (see Boelens et al., 2017).
- This for example involves instructors introducing the course, and **conducting regular tests** to assess students' competencies.
- **Student self-monitoring** their study progress can also **increase the ability and motivation for independent learning** amongst both high and low achievers.

Challenges in blended learning

4. Fostering an (inter)active learning climate

- Due to the increased transactional distance in the online part of blended courses characterized by **less spontaneous encounters** when compared to face-to-face communication (Osguthorpe & Graham, 2003) the learning climate gets negatively affected.
- It might cause **feelings of learner isolation** (McDonald, 2014), and **reduced motivation to learn** (Osguthorpe & Graham, 2003), and even **higher drop-out rates** (Angelino et al., 2007).
- **'Flipped classroom' forms**, where students engage with online lecture and textbook material at home, before participating in physical class interaction activities are particularly successful (Stockwell et al., 2015), when **compulsory online activities are further applied and assessed within F2F settings**.
- Bralić and Divjak (2018) argue that also **MOOCs can enrich traditionally taught courses** and act as a complementary resource in achieving learning goals.

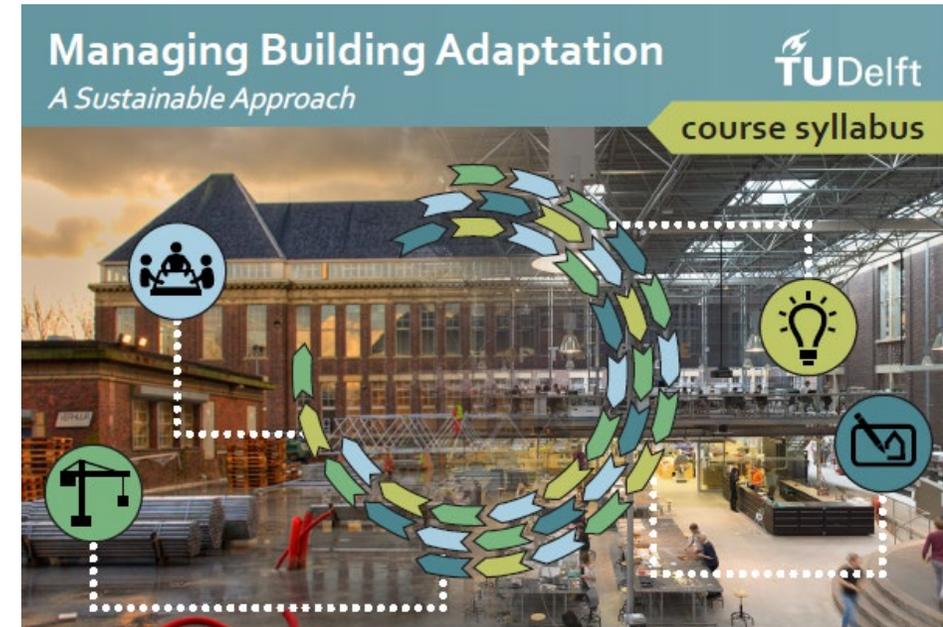


02

Blending my campus course

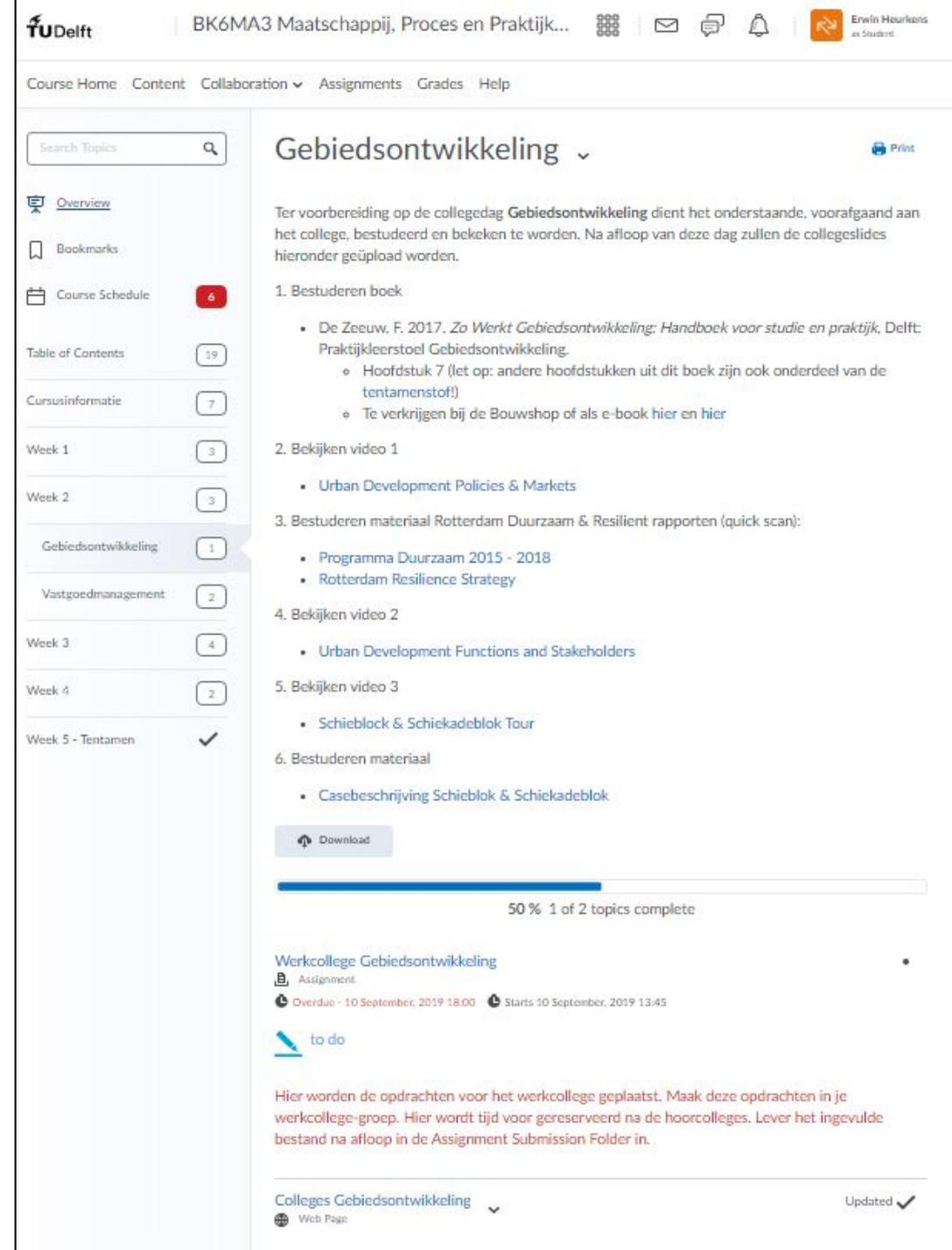
Introducing the 'blend'

- Blended course **BK6MA3 Management and Redevelopment:**
 - **3rd year Bachelor** course Faculty of Architecture and the Built Environment (TU Delft).
 - **Traditional course** with lectures, readings, final exam.
 - **5 themes:** real estate management, urban development, spatial planning, building economics, building law.
- MOOC course: **Managing Building Adaptation: A Sustainable Approach:**
 - Self-paced edX-based online course with 6 modules
 - Deliberate idea/goal to **design MOOC activities** to be partially re-used as **online material for the BK6MA3 campus course**.
 - University-supported Blended Education Programme (**BLEAP**).



Online & F2F structure & activities

- Online part (Brightspace) with specific reoccurring learning activities:
 - **reading part** of (mandatory) learning material;
 - **watching short videos** (taken from MOOCs);
 - **making short quizzes** (taken from MOOCs), and;
 - reading some **practice case stories** or articles.
- F2F part of the day included four interactive learning activities:
 - **short recap** of blended learning activities & introduction to the assignment by the teacher;
 - **assignment by groups** of 2 to 3 students (applied learning);
 - **practitioner lecture** (illustrative learning);
 - **professor lecture** (inspirational and reflective learning).



The screenshot shows a Brightspace course page for 'Gebiedsontwikkeling'. The top navigation bar includes 'TU Delft', 'BK6MA3 Maatschappij, Proces en Praktijk...', and user information 'Erwin Hourikens as Student'. The course navigation menu on the left lists 'Overview', 'Bookmarks', 'Course Schedule' (with a red notification bubble '6'), 'Table of Contents' (19), 'Cursusinformatie' (7), 'Week 1' (3), 'Week 2' (3), 'Gebiedsontwikkeling' (1, highlighted), 'Vastgoedmanagement' (2), 'Week 3' (4), 'Week 4' (2), and 'Week 5 - Tentamen' (checked).

The main content area is titled 'Gebiedsontwikkeling' and includes a 'Print' button. The text states: 'Ter voorbereiding op de collegedag Gebiedsontwikkeling dient het onderstaande, voorafgaand aan het college, bestudeerd en bekeken te worden. Na afloop van deze dag zullen de collegeslides hieronder geüpload worden.'

The course content is organized into six numbered sections:

1. Bestuderen boek
 - De Zeeuw, F. 2017. *Zo Werkt Gebiedsontwikkeling: Handboek voor studie en praktijk*, Delft: Praktijkleerstoel Gebiedsontwikkeling.
 - Hoofdstuk 7 (let op: andere hoofdstukken uit dit boek zijn ook onderdeel van de tentamenstof!)
 - Te verkrijgen bij de Bouwshop of als e-book [hier](#) en [hier](#)
2. Bekijken video 1
 - [Urban Development Policies & Markets](#)
3. Bestuderen materiaal Rotterdam Duurzaam & Resilient rapporten (quick scan):
 - [Programma Duurzaam 2015 - 2018](#)
 - [Rotterdam Resilience Strategy](#)
4. Bekijken video 2
 - [Urban Development Functions and Stakeholders](#)
5. Bekijken video 3
 - [Schieblock & Schiekadeblok Tour](#)
6. Bestuderen materiaal
 - [Casebeschrijving Schieblock & Schiekadeblok](#)

A 'Download' button is visible below the list. A progress bar indicates '50% 1 of 2 topics complete'.

Below the progress bar, there is a section for 'Werkcollege Gebiedsontwikkeling' with an 'Assignment' icon. It includes a 'to do' icon and the text: 'Hier worden de opdrachten voor het werkcollege geplaatst. Maak deze opdrachten in je werkcollege-groep. Hier wordt tijd voor gereserveerd na de hoorcolleges. Lever het ingevulde bestand na afloop in de Assignment Submission Folder in.'

At the bottom, there is a 'Colleges Gebiedsontwikkeling' section with a 'Web Page' icon and an 'Updated' status.

Online material & F2F assignment

The screenshot shows the TU Delft OpenCourseWare interface. At the top, there are navigation tabs for 'Themes', 'Programs', 'All Courses', 'DelftX MOOCs', and 'More'. The main header features a large image with the text '2.2.2 Lecture: Urban Development Policies and Markets' and 'Managing Building Adaptation: a Sustainable Approach'. Below the header, there is a breadcrumb trail: 'Home > Courses > Managing Building Adaptation: a Sustainable Approach > Course materials > Lectures > 2.2.2 Lecture: Urban Development Policies and Markets'. The main content area is titled '2.2.2 Lecture: Urban Development Policies and Markets' and includes a video player for 'Video Lecture 2.2'. The video player shows a man speaking in front of a cityscape. Below the video player, there is a call to action: 'Interested in a full learning experience? The materials in this course are part of a TU Delft free online course. Click here to find out more.'

Werkcollege: Gebiedsontwikkeling

BK6MA3 Beheer en Herontwikkeling (2019/2020), Bachelor Bouwkunde

Datum: Dinsdag 9 september 2019

Inleverdeadline: 9 september 2019 18:00

Maak de werkcollege-opdracht in je werkcollege-groep waarin je bent ingeschreven bij Brightspace.

Vul de antwoorden in op de aangegeven plaatsen (**antwoord**).

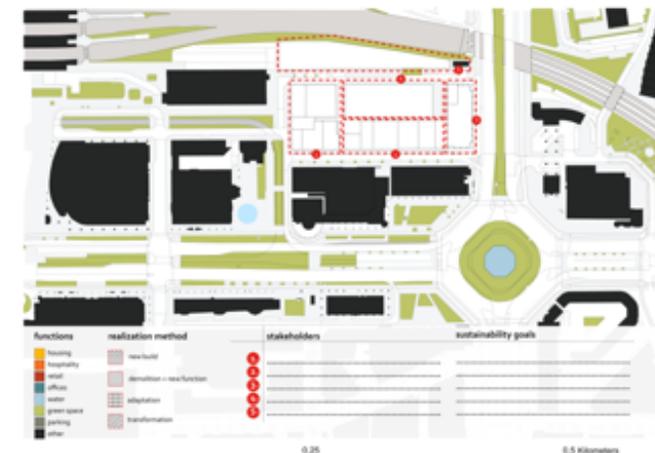
Upload per groep één ingevuld bestand in de *assignment submission folder* van "Werkcollege: Gebiedsontwikkeling" op Brightspace. Eén persoon uploadt het ingevulde bestand voor de rest van de groep op Brightspace.

Ontwikkeld door: Ervin Heurkens

| Groepsnummer | antwoord | Studentnr. ↓ |
|--------------|-----------------|-----------------|
| 1 | antwoord | antwoord |
| 2 | antwoord | antwoord |
| 3 | antwoord | antwoord |

Opdrachten

De werkcollege opdracht bestaat uit het definiëren en motiveren van een herontwikkelingsstrategie voor gebiedsontwikkeling Schiekadeblok in Rotterdam. Deel 1 bestaat uit het downloaden, tekenen en invullen van de herontwikkeling naar eigen inzicht, deel 2 bestaat uit een geschreven motivatie voor deze herontwikkelingsstrategie van maximaal 300 woorden.





03

Evaluating my blended course

Learner perspective

- Quantitative results based on evaluation survey (n=32 15% response):
 - **Overall 6,39 grade** (out of 10 max), **0,5 points lower than average campus course grade** in previous years.
 - **Grade of 3,77** (out of 5 max) for **learning a lot** in this module.
 - **51,5% spend more or less the same amount of time** that is scheduled for the course (140h, 5 ECTS).
- Qualitative results based on evaluation survey (n=32 15% response):
 - **Positive** about the organisation, teachers, and combination of lectures and group assignments.
 - **Able to self-study** online learning activities in the Brightspace.
 - Recommend the coordinator to **indicate the expected time** students should spend on each activity.
 - **Schedule 'self-study mornings'** within student's official study timetable to ensure preparations.

Coordinator/teacher perspective

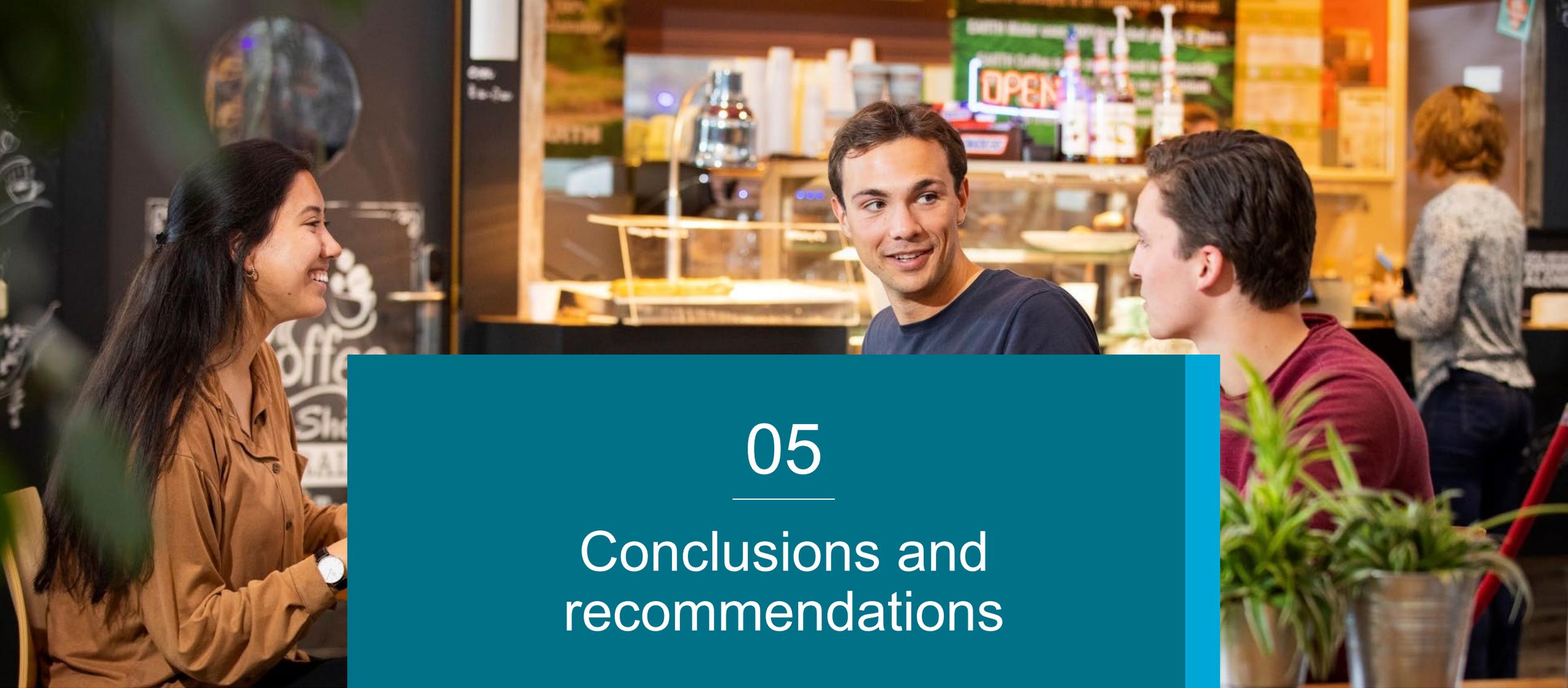
Interviewed both in the context of the BLEAP project, and separately, by the Faculty's education quality assurance staff.

My main evaluation points:

- Students in general proved to be able to perform the online self-study activities independently, **obtaining comparable grades** to previous years (passing rate 75%).
- The online self-study time **reduced the number of F2F learning activities** (amount of traditional lectures basically) slightly, and did contribute to **more effective learning** (not the tiresome lecture afternoons).
- The **F2F active learning** activities were very much valued and attended by students, which in general shows **quite some student motivation**.
- Teaching load: **significant additional preparation time** (about 60 hours) for the blended learning version, but it does not lead to higher overall student satisfaction (yet).
- Overall, I remain convinced of the **added value** of blended learning for students and staff, as the **course has become more dynamic** and interesting with various learning activities tailored at specific themes.

Literature-practice comparison

- Incorporating flexibility:
 - Students indicate that **flexibility was not so much of an issue**, despite the online learning activities being 'conditional' for the F2F assignments, the link between the two (less flexible) was appreciated.
- Stimulating interaction:
 - Social interaction was generally stimulated in F2F meetings, in both student-student discussions during group assignments, and tutor-student discussions in practice and professor lectures and debate, and basically **not at all in the online learning environment**, which corresponds to Boelens et al. (2017).
- Facilitating students' learning processes:
 - Students indicate that their **learning process was well enough facilitated**, the relatively **easy-to-use known Brightspace learning environment** has contributed to that, **both high and low achievers** were able to self-control their learning process.
- Fostering an affective learning climate:
 - Issues of potential **transactional distance, learner isolation**, and **reduced motivation** due to the online parts of the courses in my view have been largely **compensated by the biweekly F2F encounters between students and tutors**, in which social communication and interaction was paramount.



05

Conclusions and recommendations

Conclusions

- Pivotal to explain to students that **blended learning** is introduced **to stimulate active learning and what is expected** from them.
- Failing to do so, might create a **sense of demotivation**, as in general face-to-face contact between students and teachers is preferred over online activities.
- Good quality online learning activities **can enrich the learning experience and improve learner control**.
- A healthy mix and balance between online and face-to-face learning activities **for a theoretical course is achievable**
- **Integrating MOOC-based learning material** and activities in a traditional campus course can be an effective way to improve the quality and focus of the online learning activities.
- In comparison to for instance re-watching previously recorded campus lectures, **watching short theme-focused MOOC videos** is more appreciated, once purposefully integrated in the learning activities.

Recommendations

- For teachers/instructors and coordinators:
 - Do not underestimate the **amount and nature of the educational tasks** involved in blended learning courses.
 - **Follow educational courses** that provide the background for the do's and don'ts of blended education.
 - Read the (vast amount of) **literature on blended/online/hybrid learning and teaching** to recognize and change the way we design and teach courses, in addition to relying on your own experiences and observations.
 - **Purposefully blend courses**, with the aim of re-using material (video's, assignments, readings) in multiple courses.
- For faculty and university policy makers:
 - Carefully choose '**receptive**' **campus courses** to be blended, as the **F2F social interaction** component in (especially group design) courses, by students and teachers, are seen as very beneficial for the **quality level of education** (higher-order academic learning), and can't be **fully replicated in online learning environments**.
 - Reaping the success of online (MOOC) education efforts can best be achieved by a **predefined plan and strategy** of how such material could be used in campus education course.

Questions for discussion

3. Impact on students learning: social interaction and related matters

- **How do you yourself deal with the online and F2F interaction? What are your experiences and lessons?**
 - Which types of online activities and tools assist in creating an interactive learning climate?
 - Which types of F2F activities form an addition to this, and create a sense of (learning) community?
 - What are do's and don'ts for the (interactive) role of teachers in the online learning environments?

4. Impact on education innovation: structurally changing the way we teach

- **To what extent are we as teachers well supported and equipped to teach in a blended manner?**
 - How do we teach and convince students to successfully study in a blended manner?
 - What types of specific learning skills and knowledge do teachers need to have and develop to teach effectively?
 - How can we safeguard the quality of blended learning education?

Thank you for your attention!

Dr Erwin Heurkens MSc