

Online Student Motivation and Engagement @ TU Delft

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Background

The past months have seen a rapid change in the way we deliver our education. The first few weeks after the imposed COVID19 restrictions saw a shift to what we call Emergency Remote Teaching where hundreds of campus based courses went online. At Teaching & Learning Services a team of learning Developers provided support on all manner of pedagogical and technical questions. After Q3 the support sought shifted slightly from the latter two topics towards student engagement and motivation, a cornerstone of online education design. These days we have online tools that can connect our students socially in ways that can mitigate the loneliness that comes with physical separation among TU Delft students.

Engaging Students

Transactional distance theory (TDT) (Moore, 1996) is a useful theory for online course design particularly when social interaction is at the forefront. TDT suggests that the distance during instruction is transactional, not spatial or temporal (Gorsky & Caspi, 2005; Saba & Shearer, 2017). TDT posits that if we work to reduce the psychological space between participants and instructors through pedagogy, it can lead to higher learning outcomes. Zhang (2003) further states that TDT could be viewed as a measure of the student's difficulty in becoming actively engaged with their online learning environment. Any efforts we consciously make to reduce this difficulty will benefit learning outcomes. Many definitions of student engagement exist however one suited to the online model is

'Student engagement is about students putting time, energy, thought, effort, and, to some extent, feelings into their learning' Dixson (2010).

The purpose of this document is to provide guidance on how best to promote student engagement and motivation in your online courses.

Ten Top Tips

The list below has been created based on experience in supporting TU Delft online courses. Its purpose is to provide some ideas to get you thinking about how best you can maintain/ increase student engagement and motivation in your online course.

1. Utilize an agenda and to do list

Clear, prompt communication means everything to students. Feedback from students and educators working remotely during the COVID19 restrictions indicates that unaligned, poorly communicated agendas were one cause of stress for students. Devising a solid to-do list at the outset will allow both the teacher and students to manage expectations. Aligning this with the course schedule will provide increased clarity. Of importance is ensuring that it is communicated in several places on Brightspace.

2. Setting time expectations and meeting them

Let students know how often you will be responding to posts and emails so that clear expectations can be made. Studies have shown that students rely on and appreciate well structured and scheduled online courses - this has been underscored by the recent mass remote teaching environment we have found ourselves in. Sending reminders and updates to students is important as is posting times and links to sessions in more than one place on your course (if possible).

When students have their **camera and microphone on**, it will be easier for them to make connections with each other. It is therefore important to state from the first meeting that during online meetings/events there are certain norms, such as enabling one's camera and microphone. Be clear and consistent.

3. Communicate in various media formats

Text: Your online course will need to include text for various purposes including introducing content, explaining assignments and providing feedback among others. However, using various media forms can increase student engagement and motivation. Typically an effective and interactive learning sequence will use a blend of different media.

Video: Research into online learning suggests that students value video in online courses for content but also to meet the lecturers. Creating a short introductory video and encouraging students to share one can boost social and cognitive presence at the outset of a course. Modeling this behaviour will enable the students to follow best practices. It is better to create several short videos of 2-7 minutes than one long video. Consider what type of video suits your course best.

Imagery: Incorporate visual variety in your courses. Just like imagery can grab the reader's attention in online articles, it can work the same in online sessions and webinars. To make the most of the first minutes of your synchronous sessions, stimulate your students with some vivid imagery. Generally speaking, the more visually-pleasing it is, the more engaged students will become. As a general rule, you should try to find images that fit with the context of your course.

Other media: Students have different learning styles and preferences which implies that e-learning experiences must be tailored to fit in with this. A good way to grab their attention would be to incorporate various multimedia content from the beginning of your course. For instance, you could consider using graphics and animations and podcasts instead of relying on video as both great tools to introduce students to different topics and concepts.

4. Providing active learning opportunities can be quite simple

Active learning is synonymous with engaged learning. Providing your students with active learning activities will not only boost the learning effect but also their motivation. This can range from creating a discussion around an engaging topic to having students collaborate on a project. Some lecturers like to ask students to summarize important discussion threads, which has the dual purpose of creating a common understanding and assessing students' understanding of the content.

Some lecturers also like to ask students to post the summaries in a shared Google doc to increase accessibility and the likelihood of students reading them. A follow up active learning opportunity from this would be to discuss the summary for a few minutes in the next synchronous session.

As we know, assigning breakout rooms during synchronous sessions for collaboration can be an effective means of engaging students. As in the face-to-face classroom, spontaneous off-topic conversations are likely to occur in the synchronous online environment. While too much of this can detract from the learning experience, a certain amount of it is productive. Chance meetings between students after lectures can be valuable for discussing items they did not understand. While this tends not to happen in the online domain, when you put students in breakout groups they sometimes have these conversations, which can be a positive thing.

5. Include social learning activities

While this list provides some seeds which may inspire, the dedicated [Online Teaching & Learning for Campus Courses](#) for lecturers in preparation for Q1 delves into more detail.

- a. Icebreaker / introductions
- b. Find student group on campus and connect with content
- c. Virtual borrel, anyone?
- d. Social digital breakout rooms
- e. Buddy system
- f. Scavenger hunt
- g. Collaborative learning
- h. Cultural learning interactions

6. Provide timely and relevant feedback that students can use immediately

When engaging in learning online, feedback allows the learner to assess their progress and determine potential areas of self-improvement. It promotes self-reflection, increases knowledge retention and encourages constructive discussion with instructors or other online learners. By providing this feedback, you as the instructor enable the learner to maximise their learning potential. Additionally, studies have shown that learner motivation increases significantly when learners feel that their instructor is interested in their success.

Ensure consistency when providing feedback in the type, the depth and the time feedback is communicated. Providing opportunities for learners to provide peer feedback is also an effective way of empowering and motivating students.

7. Consider gamification 😊

- a. PBL (Points, Badges and Leaderboards)
- b. Exploration or quest challenges
- c. Badges
- d. Actually playing a game (monopoly)
- e. Minecraft Virtual Campus (Open mid-August 2020)

8. Use tools to create engaging content

TU Delft Supported tools

[Kaltura](#): Do-it-yourself video tool for recording from webcam / screen casting (i.e. ppt or screen) & video repository for videos created with Kaltura tool or other video tool. From the repository videos can be integrated and re-used in Brightspace course content.

Not supported video tools

These are not supported by TU Delft. You are on your own if anything goes wrong!

[Camtasia](#): Camtasia is a screen recording program, fully equipped with its own editing component for post-production. It includes a PowerPoint plugin for you to easily incorporate your presentations into your videos.

[VideoScribe](#): VideoScribe is a whiteboard video animation software that allows users to create highly dynamic and interactive animation videos on a virtual whiteboard interface.

[TouchCast](#): TouchCast Studio is an iPad app that allows users to record videos and annotate them directly from their iPad. The app has plenty of basic editing features, including TouchCast's "vApps", which can be used to insert web pages, polls, maps, and more into your video.

[FinalCut Pro / iMovie](#): FinalCut Pro and iMovie are video editing software applications for the MAC and iOS.

[Screencast-o-matic](#), [Snagit](#), and [Quicktime](#): Tools to record your screen while you teach, and is also useful to screenshot record tutorials.

Your phone! Phones these days come with very good cameras that allow you to record and edit your videos.

The following link will take you to a wealth of resources developed by Teaching & Learning Services and the Teaching Academy to assist you with all manner of online instruction: [Online Resources](#).

9. Improve course accessibility for all (universal design) on campus vs. campus students

There are [7 main principles to Universal Design](#): Equitable Use, Flexibility in Use, Simple and Intuitive Use, Perceptible Information, Tolerance for Error, Low Physical Effort, and Size and Space for Approach and Use. The main point of these principles is to enable all participants the ability to be successful in a course. The people that are most affected by accessibility are students with disabilities, from different social backgrounds, adult learners returning to learn after interruptions in formal education, and students with status considerations such as survivors of domestic violence. Providing a safe and welcoming place is crucial for student motivation.

10. Virtual campus tour

The [TU Delft Campus](#) has been modelled in Minecraft using TUD servers. The goal of this project is to boost connectedness among our student body which is of particular importance for incoming students. We envisage hosting campus tours, open days, informal get-togethers in the virtual campus as well as collaborative educational projects.

A webinar will be held in the second week of August to explain the affordances of the virtual campus so keep an eye on the Teaching Academy website for details to see how the TU Delft virtual campus could benefit your students.