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SMALL OPTIMIZATIONS: FIVE SIMPLE TWEAKS TO MAXIMIZE STUDENT ENGAGEMENT IN ONLINE COURSES

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SMALL OPTIMIZATIONS: FIVE SIMPLE TWEAKS TO MAXIMIZE STUDENT ENGAGEMENT IN ONLINE COURSES

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Abstract

In the vein of James Lang's Small Teaching (2016), I identify five concrete strategies instructors can use immediately to help optimize their online courses for student learning. Combining learning theory and instructional design principles, I demonstrate small techniques that can drastically improve the student experience navigating and engaging with online instruction. This paper reviews techniques that are quick for instructors to implement (approximately a half hour) and require minimal technical skill. The five simple techniques include: say hello, provide a road map, add a quiz, chunk your content, and move horizontally. For each technique, I start with a short narrative, introduce a bit of theoretical framework from pedagogical and instructional design and then refer to some practical examples for implementation.

Keywords

student engagement, online learning, instructional design, small teaching, optimization

Introduction

As Mount Saint Vincent University's instructional developer, I am privileged to consult with faculty as they develop or revise courses for online delivery. I meet with faculty throughout the course development process and offer feedback and support on all aspects of online learning. From the frequent and stimulating conversations I participate in across many different disciplinary contexts, and with faculty at all levels of their professional careers, I have found that faculty frequently struggle with the same problems: time and technical proficiency. Faculty are passionate advocates for their students, and are very invested in developing pedagogically sound, thoughtful courses. However, after their initial course developments, they often struggle to find the time to devote to large-scale updates of their courses. Instead, what they prefer are smaller, quicker tweaks that still provide powerful upgrades to their existing courses.

In order to respond to this need, I have collated some effective techniques that are easy to implement and can have a large impact on student learning. This paper summarizes five small, relatively quick techniques that instructors can use to improve student engagement in online courses. I have identified techniques that can be applied to courses in any discipline and that require a minimal level of technical skill or expertise. These techniques can be implemented on a home computer (ideally in your pajamas on a cozy Sunday), or on a laptop, squeezed in between teaching and administrative meetings at a quiet moment during office hours.

Each of the techniques I suggest are supported by research from the fields of learning science and instructional design. I follow the lead of James Lang's *Small Teaching* (2016) in my approach. He advocates for a methodology to educational reform based on "deliberate, structured and incremental" change, focusing on "small but powerful modifications to our course design and teaching practices" (p. 5). With these concepts firmly in mind, I present some small teaching opportunities uniquely tailored to the challenges and potential of the online learning environment. Further, for each technique, I start with a short narrative, introduce a bit of theoretical framework from pedagogical and instructional design and then refer to some practical examples for implementation.

Technique 1: Say Hello

When you teach online, sometimes you first "see" your students as names that pop up as they log into your classroom space. They might not physically see your face, nor you theirs. Even if you meet synchronously, it is common practice to appear as a kind of disembodied voice. Though that may free you to teach in your yoga pants, it does not always help form a strong-knit learning community.

To combat this, I have begun to greet each student as they enter the class. That allows students to test their mics and say hello. It also recreates that bustling hum students feel when they first enter the face-to-face classroom. I find that after a few weeks, students begin to say hi first. They feel comfortable with me as a human and are better able to imagine me as a person behind the screen.

My first recommendation, therefore, is to take the time to say hello to your students. Create a welcoming course space that is personalized. Let your students see your face, hear your voice, and see evidence of your personality and interests. The human touch—or what we more formally refer to as *instructor presence*—is integral to a positive course experience. Novak and Thibodeau (2016) describe instructor presence as “the quality of being ‘visible’ or present in online coursework” (p. 74). Instructor presence is grounded in the concept of “teaching presence” in the community of inquiry framework as one of three central components in online education: cognitive presence, social presence, and teaching presence (Garrison, Anderson, and Archer, 2000). These forms of presence in an online space work together to generate community and create social connections in an environment that can otherwise discourage those connections.

Though people sometimes believe that students are more likely to feel alienated and less motivated in an online class, student motivation is not simple, and is heavily situation-dependent (Harnett, St. George, and Dron, 2011). A number of factors contribute to this reality, but perhaps most significant is the feeling that the instructor is less present in an online course. Both students and faculty have spoken casually to me about this sentiment. Not being able to see the whites of one another’s eyes can make it more difficult to establish that personal connection, that spark that we so often associate with those powerful teaching moments. Instructor social presence is a significant factor in student satisfaction (Ladyshewsky, 2013). If students feel like you are there in the trenches with them, then they will be more engaged and more motivated to learn.

One of the simplest ways to say hello to your students is to create videos. You can use them to introduce yourself, introduce the weekly concepts, work through a difficult concept, or provide feedback. Borup, West, and Graham (2012) suggest the use of video helps establish instructor presence when students watched videos, commented on videos, and even when they followed-up by interacting with the teaching in other formats. This suggests a kind of ripple effect: what starts as engagement in the moment of watching the video actually translates to the rest of the students’ interactions in the course.

In addition to creating videos, there are lots of other ways to say hello, build instructor presence, and build community. If text is your thing, send out a regular communication as a discussion board, notification or email. If you feel comfortable, share your picture, and a few details about yourself. Consider describing what excites you about the course, its purpose, and how you

see it adding to the academic development of your students. Knowing the purpose of the course can provide motivation for students, as well as help students to see a connection between what they are learning in the class and their lives outside of the class.

Here are some practical ways you can say hello to your students and increase instructor presence in your online course:

- ✓ Make a welcome video on your phone or your webcam using free tools.
- ✓ Create a voice-over PowerPoint introducing a few reasons why you feel passionate about the course.
- ✓ Update your profile picture and create a discussion board for introductions.
- ✓ Provide an About the Instructor page.

Technique 2: Provide a Road Map

For those of us who teach writing, one of the touchstones of first year academic writing is teaching the idea of the introductory "road map." The purpose of a road map, which is usually a component part of the thesis statement, is to provide direction for the paper as a form of initial signposting. It describes the organizational structure of the paper and allows the reader to anticipate the components and argument of the paper. At a glance, the reader can see the logical steps the paper will take, and the order in which the steps will occur. It prepares the reader for the journey they are about to begin. When students master this concept, they cross a threshold into a new understanding of the signals and signposting central to academic writing. They understand the transactional nature of writing and learn to think about their audience and their needs.

My second recommendation, then, is to apply the concept of the road map to online classes. In order to improve student navigation, students need to be able to anticipate what they are about to do, and where they need to go. In *How Learning Works* (2010), Ambrose et al. argue that "it is not just what you know but *how you organize* what you know that influences learning and performance" (p. 65). If we want to support robust knowledge organization for our students, we need to make our online course's organization clear. Improved navigation can be linked to students' sense of safety and security, which can be reinforced by consistency and signposting (Bach, Haynes, and Smith, 2007, p. 118). A course without a road map is like a paper without a thesis statement: it is not clear where it is going. If students know what is expected of them and can see those expectations clearly on the course site, they will be more likely to follow where you lead.

Providing a road map may also have other positive classroom effects. It increases student agency and self-efficacy. Students are less likely to email to ask for help if they can anticipate what they need. Students are empowered by navigation that makes sense and feels natural. This strategy

also has the added bonus of helping to create a classroom routine. Classroom routines provide structure and promote the learning process by allowing students to focus more attention on the matter at hand each week: your course's activities and content.

A clear course outline, to do lists, and learning outcomes are all examples of how to provide these navigational cues to your students. Often, these kinds of strategies are also mutually reinforcing. Posting your course outline to your course site will allow your students to view it quickly, at a glance, whenever they are uncertain about what comes next. If you also post a weekly to-do list, or identify outcomes or questions that frame the week's learning, this works in tandem with the outline. The outline provides the big overview (the route through the term) and the to-do list provides the focused overview (the route through the week or even through the individual class).

There are other ways to reinforce the course road map. At the beginning of a learning asset, like a video or a PowerPoint presentation, provide a short agenda or description. If you can, also consider providing a progress bar. The students will then see where they are at in their journey. Additionally, many LMS systems have built-in progress bars. You can create them for assignments, quizzes, discussion boards, and more, to help students see how close they are to reaching their destination and achieving the course goals.

- ✓ Here are some practical ways you can create a roadmap in your online course:
- ✓ Start each module with a to-do list.
- ✓ Use the description feature to explain how and when a particular tool will be used.
- ✓ Provide learning outcomes to frame the learning activities.
- ✓ Use an agenda for synchronous meetings.
- ✓ Make rubrics to signpost performance in relation to outcomes.

Technique 3: Add a Quiz

As an undergraduate student, I always dreaded the idea of a quiz. I associated them with a form of punishment. As an English major, reading quizzes were initially framed to me as a way of assessing who did and did not do the reading(s). I lived in perpetual fear that I would not have the right answer, and thus, be proven to be one of the “bad” ones, even though I was a diligent reader. This kind of sentiment toward quizzes is common, but unfounded. A well-developed quiz is designed to promote learning, not provide punishment. Now, as an educator, I cannot say enough good things about them. Re-write the narrative and tell your students all of the ways quizzes can help them. One of the best justifications I have read regarding quizzes has to do with the idea of repetition and retrieval. Repetition strengthens the neural pathway to the information; each time you retrieve

it, you are reinforcing its importance and value (Lang, 2016, p. 25). Quizzes do a great job of reinforcing key concepts through retrieval.

My third recommendation, then, is to add an additional quiz to your course. You do not need to add one every week, or to every item that the students read. As Lang (2016) suggests in *Small Teaching*, by providing frequent quizzing, you are providing more opportunities for low-stakes assessment that will keep students engaged with the course material and improve their learning (p. 30). You can even provide quizzes that have no graded component, and just serve as an additional opportunity for feedback and self-assessment.

Perhaps one of the biggest benefits of quizzing is the way in which it puts students in control of their learning. A quiz should help students to reflect on and practice what they know. It also should help identify gaps in student knowledge quickly, and ideally, include automated instructor feedback to help direct them. Often students' biggest weaknesses are being able to identify the things they do not know. Ambrose et al. (2010) support the idea that many students do not have a good ability to assess what they know and suggest that most students need to continue developing metacognitive skills. Quizzes are one way to demonstrate the gap between the knowledge that students think they have and what they actually know. Though initially students may not be excited about more frequent quizzing, this activity will engage them more closely with the course material, and over time, they will come to see the benefits.

Learning management systems come with built-in quizzing options; there are also wonderful tools like student response systems that can allow for just-in-time participation and feedback. Those tools are a great place to start. There are many pedagogical strategies to consider when designing a quiz; here are a few suggestions:

- ✓ Create a self-assessment quiz for students to track their progress throughout the course using the same question bank.
- ✓ Design a timed retrieval quiz to review and recall concepts each week.
- ✓ Deliver a pre-test to activate prior knowledge.
- ✓ Poll the class using a student response system.
- ✓ Have students compete for a high score using competitive student response structures.

Technique 4: Chunk Your Content

One of the first things an instructional designer learns is how to “chunk” content. Chunking is a method of organizing information into manageable parts. Chunking comes from the world of web design and e-learning; the idea of chunking is about ensuring that content is provided in ways that are easy to digest, understand, and remember. I see chunking as meaning two things: first, it means

presenting information in smaller amounts; and second, and perhaps more importantly, it means being more selective about which information is included. It is not enough to put less information on a single slide or course page; the overall number of slides or pages that appear in an individual learning experience need to be manageable.

Less is more when it comes to content, so my fourth recommendation is to chunk your content. Chunking content will make it easier to understand, and hopefully, increase student motivation. A well chunked course will also promote knowledge organization by showing the relationship between the parts more clearly. Often, chunked content is driven by multimedia. Graphs and tables might replace long blocks of prose. As this chunking takes place and you strategically identify central content and its best expression, you will also find that chunking will make your course look better and navigate more smoothly.

One of the other major benefits of chunking is the way that it creates processing time. For many students, the act of paying attention for an extended period increases the student's cognitive load. One instructional designer wryly puts it this way: "student motivation is visibly affected when they are mentally clobbered with a large mass of non-chunked information" (Hoffman, 2013, p. 471). Cognitive load is the processing demand on the student's brain. If the student is focused on holding too much information in their heads at one time, they have less attention available to focus on applying, organizing, synthesizing, and creating with new information. Dirksen (2012) suggests that chunking helps free up working memory and provides students with a clearer focus. If we free up some of our students' processing space, they can then divert more of their cognitive resources (working memory) to these higher order tasks.

Whether it is turning your lecture into short mini-lectures or turning away from large swathes of text in favour of more focused readings, there are many strategies you can use to "right-size" your content to promote student mastery. Here are some strategies for chunking courses:

- ✓ Cut content. Less is always more.
- ✓ Delete slides from your PowerPoint.
- ✓ Use multimedia or visualizations in place of text descriptions.
- ✓ Create short videos around key concepts instead of lecturing.
- ✓ Choose shorter articles and grey literature from a variety of sources instead of longer research papers.

Technique 5: Move Horizontally

A common practice on course sites is to post absolutely everything to the central main page. This means if your course is organized into units by week, by the seventh week (usually of twelve),

the student needs to scroll past dozens of posted activities that they have already seen and with which they are familiar. This is a known design issue with learning management systems. In fact, their propensity to encourage scrolling is so ubiquitous that there are many discussion boards and articles about how to reduce or eliminate “the scroll of death” in online courses (Moodle News, 2017; Lande, 2016; Clay, 2013). What course designers, faculty, and students are remarking on in their use of this term is that there is a clear point when most people stop reading or participating. The more that a person has to scroll, the less likely they are to engage; their interest dies. I imagine that this is where the idea of TL;DR¹ originates. People become demotivated to continue looking, reading, and scrolling, and end up searching for a shortcut (if they do not disengage altogether).

To avoid this endless scrolling, my fifth and final recommendation is to move horizontally. I usually recommend incorporating some elements of horizontal movement in addition to using vertical scrolling. You should consider where and how your content is presented, and strategically decide what items need to be visible on the main page all of the time. Often, by collapsing content and activities, you cannot see them on the main page. This fixes the scroll of death, streamlines the main page, and emphasizes important elements. Include information your students need only for one particular class on its own page. If the material for each class is on its own page, then students usually click once to enter a particular block of content and activities. This small change will result in fewer navigation problems related to scrolling. Moving information horizontally will make the course easier to use and may improve how students feel about the course site.

Another added benefit of horizontal movement is that it offers an additional opportunity to reflect on your chunking. If you see all of your course materials laid out in a linear way, you can more easily identify the pieces that are necessary components of your course. As you think about where things go, you will likely end up decluttering your courses and avoid content dumping. So often, people add content to support their students. However, when students are faced with a mountain of materials to sift through, it becomes a challenge to prioritize. Thus, horizontal movement and chunking go hand-in-hand.

Here are some strategies you can use to encourage horizontal movement:

- ✓ Create lessons, books or folders to house content.
- ✓ Show one module at a time or collapse topics.
- ✓ Provide a table of contents or linked index to jump to relevant sections.
- ✓ Use a navigation block.

1 This is common internet slang for “too long, didn’t read.” Often, it is used before a quick summary of the pertinent ideas in the longer document.

Conclusion

The purpose of this paper was to offer some strategies for improving student engagement in online courses. For each strategy, I provided a short justification of why it works, and how an instructor might apply these recommendations. I hope that these ideas will provide you with some inspiration to take on a “small optimization” in one of your online courses this term. For more information on any of these topics, I would encourage you to reach out to an instructional developer or instructional designer at your institution. They will be able to walk you through any of these strategies in more detail.

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