



Learning Motivation of University Students in Online and Classroom Teaching: Insights from Teaching during Covid-19

ABSTRACT

In this paper, I present and discuss the findings of an intentional and systematic inquiry into the learning motivation of university master's students taking the same course in online and classroom-based formats during the Covid-19 pandemic. Through capturing the students' motivation using Keller's Instructional Materials Motivation Survey at two points during the semester and analyzing the students' course evaluations and the reflective reports of tutors, I uncover various factors influencing students' motivation. Among these are the structuredness of instructions, technical difficulties, perceived effort of the teachers, novelty of tools, and the social relationships between students. I conclude my discussion with a proposition for designing motivating blends for online higher education students.

KEYWORDS

learning motivation, online teaching, blended learning, higher education

INTRODUCTION

Online teaching is still a relatively recent practice in higher education. Compared to classroom teaching, which has existed at least since the times of medieval European universities, the history of online teaching spans just over 30 years (Bates 2015; Marasi, Jones, and Parker 2020; Park and Choi 2014). During this time, digital tools have been used on a limited scale—for augmenting and extending classroom teaching in blended formats (Castro 2019; Taylor and Newton 2013) or for securing academic continuity during temporary interruptions (Day 2015). Before 2020, only about a third of European Union universities provided fully online courses in some form, while only 12% and 7% of study programs in the fields of business studies and economics, respectively, were available fully online (U-Multirank 2020). Things changed dramatically in the early months of 2020, when, with the onset of the Covid-19 pandemic, digital tools became the universities' lifeline for continuing the educational process. Even if only for a few months, online teaching was the default mode of delivering courses in universities around the world for the first time.

For thousands of educators who were inexperienced and untrained in online teaching, including myself, this situation revealed a discrepancy; the peculiar spatial and temporal nature of online teaching did not align with established teaching practices and assumptions on student learning. Some of these assumptions related to students' learning motivation. Past research indicated that student motivation is different in in-person teaching and online teaching (Dohn, Thorsen, and Larsen 2015), but it added to

the complexity that engaging in online teaching during the pandemic was typically involuntary for both the teachers and students.

When the pandemic required me to move my teaching into the online domain, I became concerned with the question: “How can I, as a teacher, support my students’ learning motivation during a semester-long online course, while bounded by the limits of the institutional framework (e.g., the approved course descriptions, schedules, rules) and the effects of a global pandemic?” As the situation was rather unprecedented, the existing literature was not able to answer this question. As a result, I decided to engage in Scholarship of Teaching and Learning (SoTL) and use my own teaching situation as a setting for a systematic inquiry into the development of learning motivation of my students (Hutchings and Shulman 1999; Trigwell 2013). Some of these students took the course online (with both synchronous and asynchronous teaching and learning activities), while others attended in a traditional classroom format. Before introducing the context and procedure of my inquiry and its results, I provide a brief overview of scholarly literature on students’ learning motivation in traditional and online teaching formats.

LITERATURE REVIEW

The amount of scholarly literature on motivation in education suggests that it is considered an important element in teaching and learning (Ferrer et al. 2022; Loes 2022). Motivation is generally seen to be reciprocally related to learning itself, wherein it maintains and/or increases the level of energy and activity which is essential for persisting, engaging, and performing in the educational process (Chen and Jang 2010; Hartnett 2016; Lim 2004; Loes 2022). While being prominent in several disciplines, the motivation concept in education has been mostly considered through the lens of psychology. Inspired by self-determination theory, educational researchers thus distinguish between intrinsic and extrinsic motivation. The former encompasses the inherent propensities of individual learners to engage in learning activities, while the latter refers to engaging in learning for outcomes other than learning itself, such as external rewards (Ryan and Deci 2020).

The distinction between intrinsic and extrinsic motivation is not clear-cut; they can be interwoven and overlapping, and both are influenced by external factors (Ryan and Deci 2000; 2020). Csikszentmihalyi (2014) argues that the main task of a university professor is, in fact, to foster the student’s intrinsic motivation or “to enable the learner to enjoy learning” (177). In doing so, university educators allow students to continue developing as independent and autonomous learners (Leenknecht et al. 2020). Past research has considered how teachers can affect their students’ motivation through course design, specific teaching and learning activities, and through the facilitation of social relationships in courses (Herman et al. 2013; Kember, Ho, and Hong 2010; Leenknecht et al. 2020; Loes 2022). It is plausible to assume that the peculiarities of digital communication also affect the mechanisms of motivation development in a learning context (Ferrer et al. 2022).

There have been multiple attempts to check for differences in student motivation in online and on-campus teaching formats, but due to the variety of contexts, diverse conceptualizations, and methodological differences, the general picture remains unclear. Some studies show that the motivation of online students is similar or even stronger than that of on-campus students (Francis, Wormington, and Hulleman 2019; Lin, Chen, and Liu 2017; Pei and Wu 2019; Rovai et al. 2007; Shroff and Vogel 2009; Stewart, Bachman, and Johnson 2010). This has been explained by the high intrinsic motivation of students who choose to enroll in online courses or by the novelty of engaging with new, digital tools

(Ferrer et al. 2022; Hartnett 2016; Hartnett, St. George, and Dron 2011). In contrast, there are multiple reports of credit-bearing online courses having higher drop-out and attrition rates compared to on-campus courses (Boton and Gregory 2015; Chen and Jang 2010; Chyung 2001), which may indicate that the motivation of online students decreases quickly throughout the course (Francis, Wormington, and Hulleman 2019).

In contemporary research and scholarly writing, there is an increasing understanding of the overall complexity of learning motivation. Nolen (2020) refers to a “situative turn” when describing the tendency in motivational research to consider the multiplicity of overlapping socially constructed systems of meaning in which behaviors occur. This implies that studying student motivation through a few selected variables or a simple intervention has its limitations. On the contrary, it makes “inside-out” teacher research (Cochran-Smith and Lytle 1990; Lytle and Cochran-Smith 1992) along the lines of SoTL more appealing and likely more effective in identifying crucial nuances in specific contexts with implications for improving teaching practices.

THE TEACHING AND LEARNING CONTEXT

The course, where the development of motivation of online and classroom students was explored, is called Sustainable Tourism Development. The semester-long course with 15 weekly sessions is taught in English once a year at the University of Southern Denmark to students of two groups, each corresponding to one of two master’s programs in tourism. One group—referred to as Group A—are enrolled in a joint master’s program which means that after one semester at our university they continue their studies at partner universities. The other group—Group B—is enrolled at our university for the complete duration of their master’s program. For both groups, Sustainable Tourism Development is among the first courses taken during the first semester of the program. Both groups consist mostly of international students, and the majority is between the ages of 22 and 30. Group A typically has students from more distant places, including other continents. Until 2020, this course had always been offered in a classroom-based format, shared by both groups of students.

The course on Sustainable Tourism Development contributes to the overarching aim of both master’s programs to educate students to become philosophical tourism practitioners; it is thus designed “to take into account the challenges of unknown future practices” (Heape and Liburd 2018, 226). Among other things, this means that students are challenged to go beyond linear views on development, to take risks, to be creative, and to embrace collaboration with others as a mindset for engaging in sustainable tourism development. As the semester unfolds with weekly sessions, filled with in-depth discussions, the students form teams, in which they work on a project, culminating with a team presentation, an individual oral exam, and submission of a written team report. A bulk of course activities is designed to take place in project teams. Normally, these teams would be created across the two groups, as the teachers encourage students to leverage the cultural differences, disciplinary diversity, and other forms of diversity in the classroom and in their teams. Hence, the course activities are heavily reliant on communication between students as well as between the students, the teachers, and the tutors.

As the pandemic was unfolding throughout the first half of 2020, hampering international travel, the responsible university administrators decided for a different format of teaching in the semester, which started in September 2020 and ended in January 2021. The general structure and the timeline of this format is illustrated in Figure 1. Students in Group A would start the semester with complete online teaching, while students in Group B would receive the usual, classroom-based teaching, with special

sanitary measures. Essentially, this meant starting the semester with two versions of the same course. In the second half of October, when all students of Group A could relocate and were able to attend the university physically, the groups were merged for teaching in classroom format until the completion of the course in January 2021.

Figure 1. The timeline and structure of the teaching formats of the course for Groups A and B

	September	October	November	December	January
Group A	Online teaching <i>(synchronous and asynchronous activities)</i>		Classroom-based teaching <i>(two groups together)</i>		Preparation and exams <i>(no active teaching)</i>
Group B	Classroom-based teaching				

Prior to the start of the semester, my co-teacher and I had no experience in online teaching. Nevertheless, we were committed to maintaining an excellent quality of teaching that would not compromise the original aims of the course and would be considerate to the situation of our students. We had to take into account that the students were new to the university, did not know each other nor their teachers, and that they were physically located across 12 time zones. In the few months before the start of the semester, together with other teachers in our master's programs, we initiated and participated in a brief two-day training for online teaching, delivered by our university's Center for Teaching and Learning (CTL). This training provided a basic understanding of online teaching, its main forms, and some of the online tools that our colleagues at CTL found useful.

Based on this training and discussions with colleagues, we decided to combine both synchronous (real-time) and asynchronous teaching and learning activities in our course for Group A. This would mean shorter than usual weekly synchronous sessions of 90 minutes each with the use of a video-conferencing tool (Adobe Connect), while the rest of the activities would be asynchronous, allowing flexibility in time for completing them. We used the tools available in the Blackboard learning management system (LMS), such as blogs and discussion boards, Padlet (as a tool for collaborative brainstorming), and Microsoft Sway (for an interactive and dynamic syllabus). We also recorded video lectures (20–30 minutes long, with a standardized format) and one episode of a podcast. Each asynchronous task was accompanied by an e-tivity (a blend of “electronic” and “activity”) form, uploaded to the course's LMS, which included the objectives of the task, instructions on completing it, and information on how these tasks would be used in the course.

Just as in previous years, teaching in the course was supported by two tutors—two students who passed the same course with an excellent grade in the previous year, and who were available for meetings with the teams to discuss the progress of their projects. The two tutors received university credit for their work upon submitting a reflective report.

THE INQUIRY

For the inquiry, I have collected three types of data. First, I used the digital student course evaluations—one in the middle of the course and one at its end—to capture the students' general responses to the course. The anonymous midterm evaluations, which have a free format at our university, included both quantitative Likert-scale assessments of various aspects of the teaching process as well as open-ended questions where students could provide explanations to their assessments or general comments. In my motivation inquiry, I have mostly focused on the responses to the open questions, as these offered better insight into the students' situations.

Second, I offered an additional anonymous questionnaire, specifically designed for capturing learning motivation. Two links to a digital questionnaire created with the Microsoft Forms tool were posted on the course's LMS page—one in the middle of the course (in the end of October 2020) and another one at the end of the course (in January 2021). This questionnaire contained items from the Instructional Materials Motivation Survey (IMMS) (Keller 2010). The IMMS is based on Keller's (1987) ARCS model, which lays down four main conditions for becoming and remaining motivated, namely attention (i.e., catching and keeping students' attention), relevance (i.e. convincing students why they need to learn what they are learning), confidence (i.e. convincing the students that they can succeed by putting in effort), and satisfaction (i.e. making students feel a sense of reward) (Keller 1987). I have chosen this tool and model as it had been widely used in the domain of online teaching and learning (Hartnett 2016; Li and Keller 2018), and as it focuses on the aspects of student's motivation which are directly related (or relatable) to instructional choices, based on the assumption that teachers can influence student's motivation through instructional design.

The 36 items of the survey, which capture the responses of students to instructional materials of the course, were adapted to fit the context of the course. To make it possible to compare results between the two timepoints without threatening the anonymity of survey respondents, unique self-generated codes (a combination containing two characters of the student's place of birth, two of mother's name, and the two digits of the date in the month of birth, e.g., KO14IA) were used. The students were not rewarded for filling out the questionnaires. Out of the 73 students enrolled in the course, 31 completed the first round in October, and 28 students—the second round in January. Based on the self-generated codes, I found that 20 students participated in both rounds. Table 1 contains more detailed information regarding the response rate of students within groups A and B.

Table 1: Students' response rates in the IMMS survey across groups

		Mid-course (October)	End-of-course (January)
Group A	# of respondents	11	12
	# of students in the group	25	25
	response rate	44%	48%
Group B	# of respondents	20	16
	# of students in the group	50	49
	response rate	40%	33%

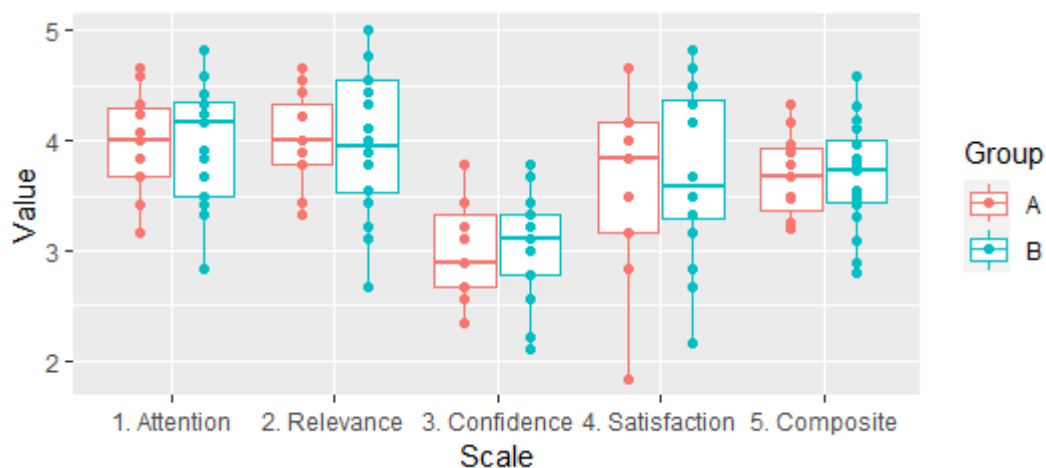
Third, I used the written reports of the two student tutors (upon their agreement) as another form of data. While the objective of these reports was not directed to explore the students' motivations, these reports contained the tutors' reflections on interactions with students and thus provided another angle on the development of the course. I analyzed the tutor reports as well as the responses to open-ended questions of the course evaluations through thematic analysis (Braun and Clarke 2006). This meant going through these qualitative materials and coding them using open, inductive coding, framed by the theme of the inquiry. Thus passages referring to motivation, interest, satisfaction, and drive, or their opposites, were coded. The codes were then merged into themes that were used to augment the interpretation of the survey results.

The design of the inquiry was reviewed and approved by our university's CTL in September 2020 as part of a lecturer training program.

FINDINGS

I present the findings of my inquiry chronologically, as they unfolded during the semester. First, I visualized the data from the IMMS questionnaires in combined strip/box plots, which present the distribution of the survey values, the median value, and the first and third quartiles (the 25th and 75th percentiles) of the values' distribution (as shown by the two hinges on each plot). In these plots, higher numeric values represent higher motivation levels. As the samples of students were too small to conduct statistical analyses, I discuss the changes in motivation by qualitative comparison of the strip plots. Second, I used insights from the qualitative data sources—course evaluations and tutors' reports—to interpret the survey results. Figure 2 illustrates the differences in motivation between the two groups in all four components of the ARCS model, as well as between the composite scores, as captured during the first IMMS survey in the middle of the semester.

Figure 2. Comparison of results of the October IMMS survey across the two groups



From the plots in Figure 2, it becomes quite clear that the level of motivation was virtually the same in both groups after the first half of the course. The only noticeable difference was in the satisfaction subscale, but this was not enough to affect the composite score. It is important to note that the division of the two groups was not random, and thus it is possible and even likely that the students in the two groups started the course with different levels of motivation. I did not conduct a measurement at the

beginning of the semester—partly due to our focus on other critical aspects of teaching in a turbulent time and partly because the IMMS survey would only make sense at a time when the students were actively using course materials.

Around the time of the first IMMS survey, the students were also asked to complete the mid-semester evaluation. This online questionnaire contained direct questions inquiring about how the students felt in regards to the various online tools. Group A's responses were mostly limited to expressing a "lukewarm" acceptance. Many students found the recorded video lectures useful, but one described them as "boring," since they did not permit interaction with the speaker. Some students also mentioned that using Padlet "for the first time" felt exciting, given that multiple students could work on something together, but that excitement disappeared over repeated interactions with the tool.

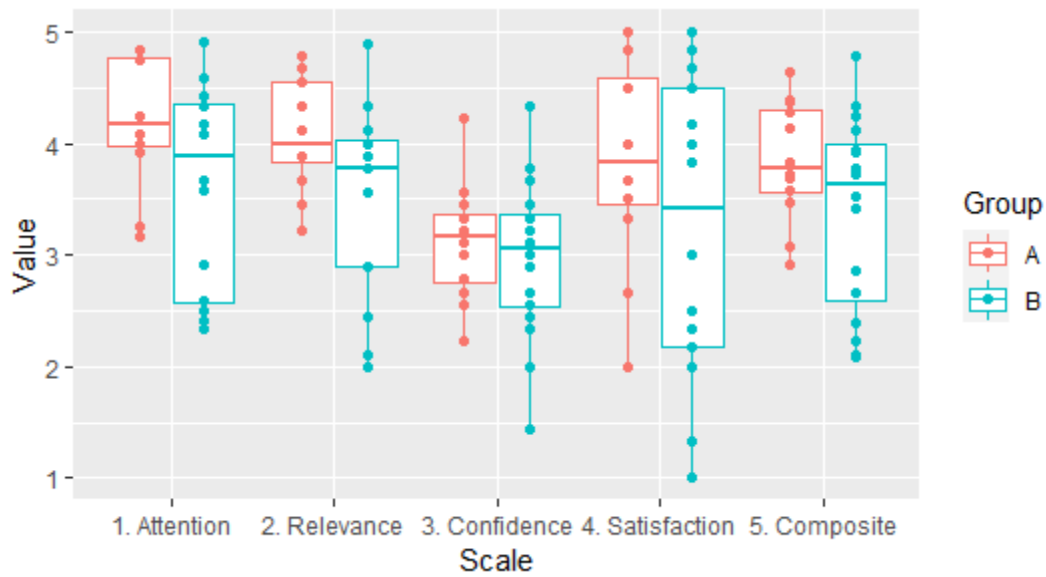
Students in Group B were also exposed to some of the online tools beyond the classroom-based teaching. Quite surprisingly, these students were more vocal about such activities in their evaluations. Some students expressed that they liked online activities because they helped them keep a better (digital) record of their work and supported a better structure and overview of the course as well as allowed them to look back to some materials for revising. Others contrasted online activities to physical alternatives, for which they expressed preference since the latter allowed for more interaction. Quite peculiarly, students commonly referred to the "entertaining" value of activities and described online lectures as "streaming" (similar to entertainment streaming services).

The most prominent and prevalent issues mentioned by students in Group A were technical and connection problems. We had chosen Adobe Connect as the instructional platform for the course's synchronous activities as it offered many functions and flexible module-based design, affording multiple types of activities. However, it proved to be unstable for users in many countries. Due to issues with loading content, students preferred to keep their cameras and microphones off and communicated through the chat feature, but its slow pace was not driving discussion or engagement. Some students also had to re-enter the virtual classroom multiple times during the same session. Overall, students referred to these issues as demotivating, at least to the extent of a single synchronous session. It was not clear whether continuous connectivity issues had an effect on the long-term motivation of students in the course.

At the same time, students in Group A expressed positive assessment of the structured instructions for the asynchronous tasks (the e-tivity forms), which helped avoid misunderstandings and ambiguities. Even more importantly, students voiced their appreciation for the effort that we, the teachers, put into making the course inspiring and entertaining by trying to "accommodate [their] generation's preferences" (e.g., by doing a podcast). The course evaluations overall gave the impression that students were understanding of the challenges of teaching online, and thus were less critical of tools or situations that did not work well for them as long as they could feel a level of effort and support from their teachers.

After the first half of the semester, students in Group A joined their peers in Group B, and the course continued with one large group in a classroom-based format. Figure 3 captures the level of motivation as measured by the IMMS questionnaire at the end of the semester in January. At the second measurement, the scores of all subscales were visibly lower in Group B than in Group A. This happened despite both groups sharing the same type of teaching and participating in the course together.

Figure 3. Comparison of results of the January IMMS survey across the two groups



To better understand this difference, it is worth comparing the captured levels of motivation across time, as it is done in Figures 4.1 and 4.2. Figure 4.1 shows how motivation of students in Group A (who switched from online to classroom-based teaching) increased from October to January. The motivation of Group B, who did not experience a change in modality of teaching, visibly decreased in the same period, as shown in Figure 4.2.

Figure 4.1. Comparison of IMMS results across the two data collection timepoints for Group A

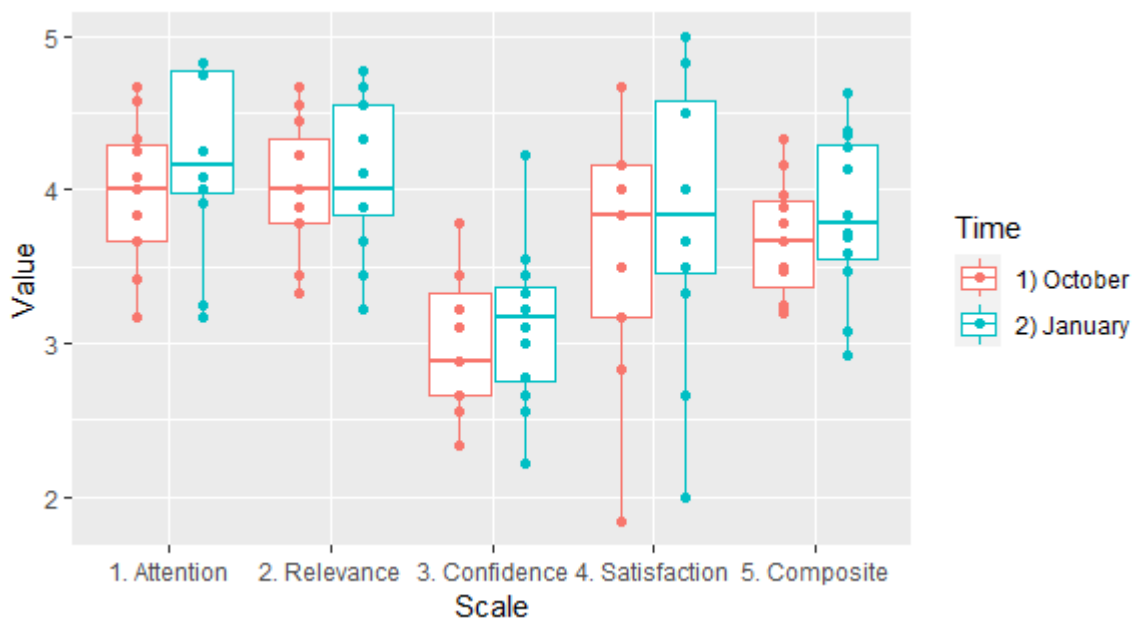
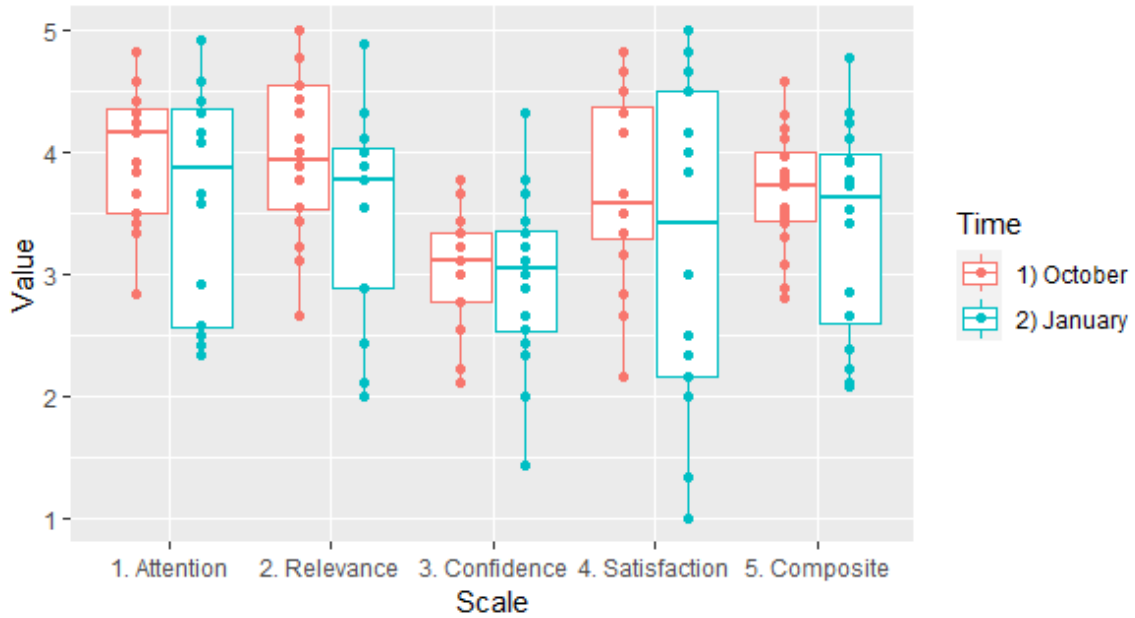
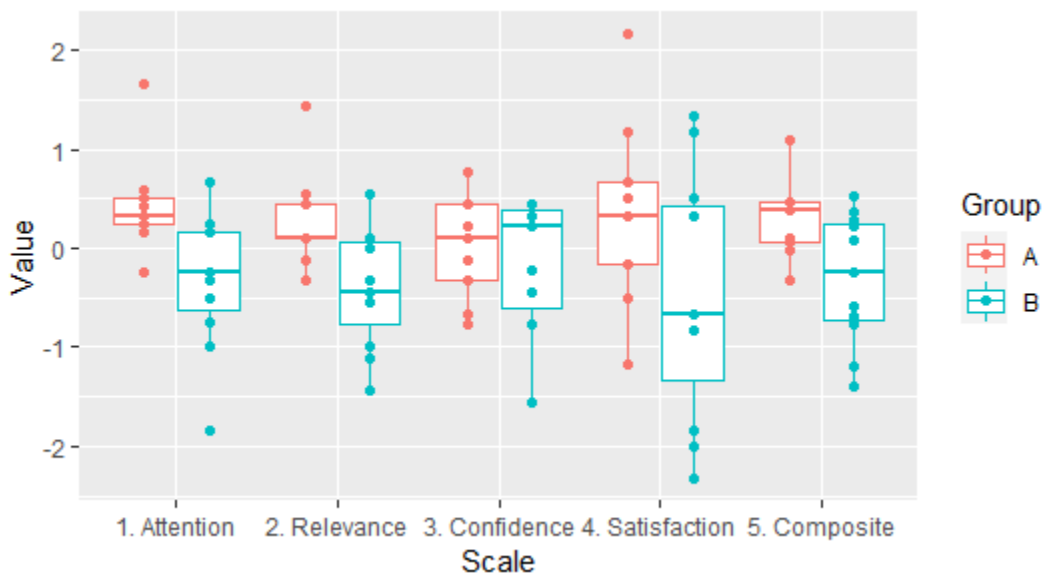


Figure 4.2. Comparison of IMMS results across the two data collection timepoints for Group B



The same effect is captured in Figure 5, which shows the change in motivation at the individual level. This could be calculated only for the 20 students who participated in both rounds of the survey. Unlike the previous plots, the one in Figure 5 shows the values of change between October and January rather than the measured values. Here, the majority of students in Group A exhibited an increase in motivation (illustrated by positive change values), while the majority of those in Group B exhibited a decrease (negative change values).

Figure 5. Differences in IMMS results across the two data collection timepoints calculated at individual level



In the final course evaluations, the students referred less to the online tools and online participation in the course and more to their general learning curve and course experience. Some students in Group A described how they started the course with high motivation, which then decreased over the process of online teaching, and subsequently soared once they had a chance to meet their classmates in person and work together on their team projects. The ability to meet one's teammates in person for project work was prominently mentioned by several students in Group A. Students in both groups mentioned how the uncertainties in project work and complexities of the tasks caused unease and insecurity. Students in both groups expressed their dissatisfaction with the large auditorium, which was used for holding the classroom sessions in the second half of the semester given the requirement for physical distancing. According to the students, the design of the room discouraged collaboration and discussion.

The tutors' reports captured the learning curve of teams in both groups from an external perspective. Both tutors noticed how most teams in Group A seemed to be behind their on-campus peers in the first half of the semester. They noted that students in Group A were lacking the same drive and level of collaboration as Group B. The situation changed abruptly after the students' physical relocation. As per the tutors' impressions, some of the teams in Group A not only compensated for the slow beginnings but also surpassed many teams in Group B towards the end of the semester.

Both the final course evaluations and the tutors' reports implied that the increase of motivation in Group A was predominantly due to the students' physical move from their home countries to the location of our university. This is because it allowed them to meet their teammates in person. While students of both groups experienced frustrations with the complexities of the course (similar to previous years), students in Group A seemed to be energized by the new social learning experiences enabled in the middle of the semester. This was especially powerful given the experienced contrast to the difficulties of collaborating and communicating with their teammates via online tools—something that students in Group B did not experience to the same extent.

DISCUSSION OF FINDINGS, LIMITATIONS AND RECOMMENDATIONS

My inquiry, while systematic and intentional in its nature and supported by multiple sources of data, is not a large-scale, controlled research study. The limitations in sample size and the lack of control of external factors have not allowed the establishment of firm causal relationships or generalizable findings. The context of the inquiry was also rather special—the online teaching and learning was taking place at a time of global pandemic which had already been happening for half a year at the time of the course. At the same time, studying the phenomenon as a whole from the inside of the teaching and learning process did not only help to produce a data-rich case, but also offered a holistic, non-reductionist perspective on the notion of motivation development in online and classroom teaching and the role of the teacher's choices in it (Cochran-Smith and Lytle 1990).

While our students were open to discussing many aspects of the course in their evaluations, the connection between their learning motivation and various course elements did not seem to resonate strongly with them. Even when asked directly about it, the student responses did not contain much detail. Open answers suggested that their motivation was mostly affected by factors other than course design and activities. This was perhaps to be expected, given the serious impacts that the pandemic had on all of us, way beyond what would be happening in a course. That is not to say that the overall teaching mode and design choices did not have an effect on motivation in their own right. The IMMS measurements suggest that the students who started the course fully online experienced a great change

in their motivation between the middle and end of the semester. This change coincided with them switching from online to classroom-based teaching. As the course evaluations indicate, the motivation was boosted not as much by switching to classroom-based activities but rather by the students' ability to meet their peers for group work, even outside classroom hours. This confirms the crucial role of active social relationships on learning motivation (Leenknecht et al. 2020; Loes 2022).

When bounded by an online teaching environment, teachers still can help their students' motivation in multiple ways. One of them is through the presentation and communication of tasks. Our students expressed appreciation for the concise, structured description of the course tasks, especially those that were performed asynchronously. Clear descriptions that include the objective of the task or activity, the main steps, and offer a connection to the rest of the course help students, located physically in different parts of the world, to work in the same direction and thus have something in common. They also help avoid uncertainties and anxieties of the students and boost confidence in the course. Providing such clear descriptions requires teachers to be more structured in their own preparation for the course. It is crucial to lead by example in order to expect students to deliver clearly formulated and well-structured assignments that correspond to the course's learning objectives.

Along similar lines, it can be motivating for students if teachers show visible effort and interest in creating a positive learning experience. Unlike what much of the literature on motivation in online teaching suggests (e.g., Ferrer et al. 2022; Hartnett 2016; Hartnett, St. George, and Dron 2011), our students did not seem to find the novelty of the tools we used motivating, at least not in the longer term. This may be due to the fact that most of our students were digital natives (Kivunja 2014), and they were more used to or even expected the use of digital tools in learning. By contrast, they expressed appreciation for our attempts to make the course more appealing to them, such as by recording a podcast. This echoes the long-established idea that motivated, involved teachers who care about their course and their students increase the learning motivation of their students (Butler 2012; Leenknecht et al. 2020; Schiefele 2017).

A necessary requirement for online teaching is reliance on technical equipment, software, and network connections. The unstable work of one or more of them during online teaching can be compared with a classroom without a roof during rain—any effort on course design or the teaching and learning activities is futile when the attention of the students (and often the teachers too) is directed to troubleshooting. This dependence makes it difficult to separate the effects of the technical infrastructure and that of course elements on student motivation. In my inquiry, technical difficulties emerged as the most prominent demotivator, according to the students. It is not possible to conclude whether this effect was long-lasting or not, but it would be unwise to ignore it. Naturally, the teachers are not in full control of all the technical conditions, especially those of remote students, but they can somewhat address the choice of tools, which should be relatively stable and simpler, even if more limited in their features and capabilities.

The observation that the group, which was taking the course in a classroom-based format with only a limited amount of online activities, was more vocal and positive about their use foregrounds the benefits of blended teaching and learning. Blended learning is commonly defined as the deliberate combination of online and classroom-based activities designed to activate and support learning (Tomej et al. 2022). Given its origins, it is usually perceived as the integration of online activities into an otherwise classroom-based course. However, the opposite should also be viable—a predominantly online course can and should include offline activities. Group A's soaring motivation after being able to

meet and work with their teammates provides good evidence for the potential of such an approach in terms of maintaining students' motivation in a predominantly online course.

CONCLUSION

In this article, I presented my attempt to engage in SoTL in order to intentionally and systematically study the development of my students' motivation in online and classroom-based formats of the same course. The context of my inquiry differed from past research in that teaching and learning was taking place during a pandemic and students were not choosing online teaching voluntarily. By conducting the inquiry as a teacher-researcher from the inside of the teaching and learning process, I could obtain a holistic picture, albeit with the limitations of my own perspective. The overall findings reflect the situatedness of learning motivation (Hartnett 2016; Nolen 2020); the course elements and teachers' choices constitute only a limited proportion of the defining factors of learning motivation. At the same time, the inquiry uncovered the negative effects of technical challenges and the positive effects of structured instructions and the teacher's visible efforts on the students' learning motivation. The novelty of tools and activities used in online teaching was not found to have a defining role in shaping motivation of students, despite what extant literature suggests.

This inquiry could not answer my original question in time to enhance the learning experience of the students I taught online in 2020. Nevertheless, taking a scholarly and reflective view on my own experimenting enhanced my understanding of learning motivations in higher education. By sharing my insights with the teaching community, I hope it can also chart new ways for designing both online and classroom-based university courses. In 2021, my courses switched back to their usual classroom-based formats. The experiences of the previous year, however, give more confidence in using online teaching as an effective way of maintaining the educational process during certain emergencies or for addressing spatial distances between participants. Even more importantly, such insights provide ground for increasing the blend of online and classroom-based elements in a course. The motivating effect of social experiences of the students, uncovered in my inquiry, suggests the effectiveness—in terms of student motivation—of blending face-to-face activities and tasks requiring social contact and online activities, especially asynchronous ones that do not require such interaction.

The findings of my inquiry should be considered together with their context and the limitations that a SoTL inquiry brings. It would require a more comprehensive and more controlled research study to confirm the effects and establish generalizations. This article also opens several avenues for new research. For example, it would be helpful to identify the duration of motivational effects of online tools' novelty as well as that of the technical difficulties while using them. Furthermore, the effects of various "blends" of online and face-to-face or classroom activities could be explored. Along similar lines, the motivational aspects of various proportions of synchronous and asynchronous activities in online courses are worthy of investigation.

ACKNOWLEDGMENTS

I thank Lotte O'Neill and Bodil Stilling Blichfeldt for being my mentors in the lecturer training program and providing feedback and feedforward to my SoTL attempts. I am also grateful to my co-teacher Janne Liburd for helping me in data collection and to Christopher Kjær and Inger-Marie Christensen from my university's Center for Teaching and Learning for delivering intensive training on online teaching in the chaotic summer months of 2020.

AUTHOR BIOGRAPHY

Kristof Tomej is assistant professor in the Department of Design and Communication and the Center for Tourism, Innovation, and Culture at the University of Southern Denmark in Kolding, Denmark.

REFERENCES

- Bates, A. W. (Tony). 2015. *Teaching in a Digital Age*. Tony Bates Associates Ltd. <https://opentextbc.ca/teachinginadigitalage/>.
- Boton, Eliani Colferai, and Sue Gregory. 2015. "Minimizing Attrition in Online Degree Courses." *Journal of Educators Online* 12 (1). <https://eric.ed.gov/?id=EJ1051044>.
- Braun, Virginia, and Victoria Clarke. 2006. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3 (2): 77–101.
- Butler, Ruth. 2012. "Striving to Connect: Extending an Achievement Goal Approach to Teacher Motivation to Include Relational Goals for Teaching." *Journal of Educational Psychology* 104 (3): 726–42. <https://doi.org/10.1037/a0028613>.
- Castro, Robin. 2019. "Blended Learning in Higher Education: Trends and Capabilities." *Education and Information Technologies* 24 (4): 2523–46. <https://doi.org/10.1007/s10639-019-09886-3>.
- Chen, Kuan-Chung, and Syh-Jong Jang. 2010. "Motivation in Online Learning: Testing a Model of Self-Determination Theory." *Computers in Human Behavior*, 26 (4): 741–52. <https://doi.org/10.1016/j.chb.2010.01.011>.
- Chyung, Seung Youn (Yonnie). 2001. "Systematic and Systemic Approaches to Reducing Attrition Rates in Online Higher Education." *American Journal of Distance Education* 15 (3): 36–49. <https://doi.org/10.1080/08923640109527092>.
- Cochran-Smith, Marilyn, and Susan L. Lytle. 1990. "Research on Teaching and Teacher Research: The Issues That Divide." *Educational Researcher* 19 (2): 2–11. <https://doi.org/10.3102/0013189X019002002>.
- Csikszentmihalyi, Mihaly. 2014. "Intrinsic Motivation and Effective Teaching." In *Applications of Flow in Human Development and Education: The Collected Works of Mihaly Csikszentmihalyi*, edited by Mihaly Csikszentmihalyi, 173–87. Dordrecht: Springer Netherlands. https://doi.org/10.1007/978-94-017-9094-9_8.
- Day, Terence. 2015. "Academic Continuity: Staying True to Teaching Values and Objectives in the Face of Course Interruptions." *Teaching & Learning Inquiry* 3 (1): 75–89. <https://doi.org/10.20343/teachlearningqu.3.1.75>.
- Dohn, Nina Bonderup, Marianne Thorsen, and Søren Larsen. 2015. "E-Learning." In *University Teaching & Learning*, 299–326. Frederiksberg: Samfundslitteratur.
- Ferrer, Justine, Allison Ringer, Kerrie Saville, Melissa A Parris, and Kia Kashi. 2022. "Students' Motivation and Engagement in Higher Education: The Importance of Attitude to Online Learning." *Higher Education* 83 (2): 317–38. <https://doi.org/10.1007/s10734-020-00657-5>.
- Francis, Michelle K., Stephanie V. Wormington, and Chris Hulleman. 2019. "The Costs of Online Learning: Examining Differences in Motivation and Academic Outcomes in Online and Face-to-Face Community College Developmental Mathematics Courses." *Frontiers in Psychology* 10. <https://doi.org/10.3389/fpsyg.2019.02054>.
- Hartnett, Maggie. 2016. "The Importance of Motivation in Online Learning." In *Motivation in Online Education*, edited by Maggie Hartnett, 5–32. Singapore: Springer. https://doi.org/10.1007/978-981-10-0700-2_2.
- Hartnett, Maggie, Alison St. George, and John Dron. 2011. "Examining Motivation in Online Distance Learning Environments: Complex, Multifaceted, and Situation-Dependent." *International Review of Research in Open and Distributed Learning* 12 (6): 20–38. <https://doi.org/10.19173/irrodl.v12i6.1030>.
- Heape, Chris, and Janne Liburd. 2018. "Collaborative Learning for Sustainable Tourism Development." In *Collaboration for Sustainable Tourism Development*, edited by Janne Liburd and Deborah Edwards, 226–43. Oxford: Goodfellow Publishers. <http://dx.doi.org/10.23912/9781911635000-3879>.
- Herman, Geoffrey L., Kathryn Trenshaw, David E. Goldberg, Jonathan Stolk, and Mark Somerville. 2013. "Creating an Intrinsic-Motivation-Driven Course Design Method." In *2013 IEEE Frontiers in Education Conference (FIE)*, 1203–9. <https://doi.org/10.1109/FIE.2013.6685021>.
- Hutchings, Pat, and Lee S. Shulman. 1999. "The Scholarship of Teaching: *New Elaborations, New Developments.*" *Change: The Magazine of Higher Learning* 31 (5): 10–15. <https://doi.org/10.1080/00091389909604218>.
- Keller, John M. 1987. "Development and Use of the ARCS Model of Instructional Design." *Journal of Instructional Development* 10 (3): 2–10. <https://doi.org/10.1007/BF02905780>.

- Keller, John M. 2010. "Tools to Support Motivational Design." In *Motivational Design for Learning and Performance: The ARCS Model Approach*, edited by John M. Keller, 267–95. Boston, MA: Springer US. https://doi.org/10.1007/978-1-4419-1250-3_11.
- Kember, David, Amber Ho, and Celina Hong. 2010. "Characterising a Teaching and Learning Environment Capable of Motivating Student Learning." *Learning Environments Research* 13 (1): 43–57. <https://doi.org/10.1007/s10984-009-9065-8>.
- Kivunja, Charles. 2014. "Theoretical Perspectives of How Digital Natives Learn." *International Journal of Higher Education* 3 (1): 94–109.
- Leenknecht, Martijn J. M., Ingrid Snijders, Lisette Wijnia, Remy M. J. P. Rikers, and Sofie M. M. Loyens. 2020. "Building Relationships in Higher Education to Support Students' Motivation." *Teaching in Higher Education* 0 (0): 1–22. <https://doi.org/10.1080/13562517.2020.1839748>.
- Li, Kun, and John M. Keller. 2018. "Use of the ARCS Model in Education: A Literature Review." *Computers & Education* 122 (July): 54–62. <https://doi.org/10.1016/j.compedu.2018.03.019>.
- Lim, Doo H. 2004. "Cross Cultural Differences in Online Learning Motivation." *Educational Media International* 41 (2): 163–75. <https://doi.org/10.1080/09523980410001685784>.
- Lin, Ming-Hung, Huang-g Chen, and Kuang-Sheng Liu. 2017. "A Study of the Effects of Digital Learning on Learning Motivation and Learning Outcome." *Eurasia Journal of Mathematics, Science and Technology Education* 13 (7): 3553–64. <https://doi.org/10.12973/eurasia.2017.00744a>.
- Loes, Chad N. 2022. "The Effect of Collaborative Learning on Academic Motivation." *Teaching & Learning Inquiry* 10 (January). <https://doi.org/10.20343/teachlearningqu.10.4>.
- Lytle, Susan L., and Marilyn Cochran-Smith. 1992. "Teacher Research as a Way of Knowing." *Harvard Educational Review* 62 (4): 447.
- Marasi, Shelly, Brian Jones, and Janna M. Parker. 2020. "Faculty Satisfaction with Online Teaching: A Comprehensive Study with American Faculty." *Studies in Higher Education*, 47 (3): 513-25. <https://doi.org/10.1080/03075079.2020.1767050>.
- Nolen, Susan Bobbitt. 2020. "A Situative Turn in the Conversation on Motivation Theories." *Contemporary Educational Psychology* 61 (April): 101866. <https://doi.org/10.1016/j.cedpsych.2020.101866>.
- Park, Elisa L., and Bo Keum Choi. 2014. "Transformation of Classroom Spaces: Traditional versus Active Learning Classroom in Colleges." *Higher Education* 68 (5): 749–71. <http://dx.doi.org/10.1007/s10734-014-9742-0>.
- Pei, Leisi, and Hongbin Wu. 2019. "Does Online Learning Work Better than Offline Learning in Undergraduate Medical Education? A Systematic Review and Meta-Analysis." *Medical Education Online* 24 (1): 1666538. <https://doi.org/10.1080/10872981.2019.1666538>.
- Rovai, Alfred, Michael Ponton, Mervyn Wighting, and Jason Baker. 2007. "A Comparative Analysis of Student Motivation in Traditional Classroom and E-Learning Courses." *International Journal on E-Learning* 6 (3): 413–32.
- Ryan, Richard M., and Edward L. Deci. 2000. "Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions." *Contemporary Educational Psychology* 25 (1): 54–67. <https://doi.org/10.1006/ceps.1999.1020>.
- Ryan, Richard M., and Edward L. Deci. 2020. "Intrinsic and Extrinsic Motivation from a Self-Determination Theory Perspective: Definitions, Theory, Practices, and Future Directions." *Contemporary Educational Psychology* 61 (April): 101860. <https://doi.org/10.1016/j.cedpsych.2020.101860>.
- Schiefele, Ulrich. 2017. "Classroom Management and Mastery-Oriented Instruction as Mediators of the Effects of Teacher Motivation on Student Motivation." *Teaching and Teacher Education* 64 (May): 115–26. <https://doi.org/10.1016/j.tate.2017.02.004>.
- Shroff, Ronnie H., and Douglas R. Vogel. 2009. "Assessing the Factors Deemed to Support Individual Student Intrinsic Motivation in Technology Supported Online and Face-to-Face Discussions." *Journal of Information Technology Education: Research* 8 (1): 59–85.
- Stewart, Cindy, Christine Bachman, and Ruth Johnson. 2010. "Student Characteristics and Motivation Orientation of Online and Traditional Degree Programs." *Journal of Online Learning and Teaching* 6 (2): 367.
- Taylor, Janet A., and Diane Newton. 2013. "Beyond Blended Learning: A Case Study of Institutional Change at an Australian Regional University." *The Internet and Higher Education*, Blended Learning in Higher Education: Policy and Implementation Issues, 18 (July): 54–60. <https://doi.org/10.1016/j.iheduc.2012.10.003>.
- Tomej, Kristof, Janne Liburd, Bodil Stilling Blichfeldt, and Anne-Mette Hjalager. 2022. "Blended and (Not so) Splendid Teaching and Learning: Higher Education Insights from University Teachers during the Covid-19

Pandemic." *International Journal of Educational Research Open* 3 (January): 100144.

<https://doi.org/10.1016/j.ijedro.2022.100144>.

Trigwell, Keith. 2013. "Evidence of the Impact of Scholarship of Teaching and Learning Purposes." *Teaching & Learning Inquiry* 1 (1): 95–105. <https://doi.org/10.20343/teachlearningqu.1.1.95>.

U-Multirank, "About 60% of universities reported online learning provisions in their strategic planning pre-COVID-19, but only few appeared to be prepared for a quick shift to full online programmes," press release, June 9, 2020, <https://www.umultirank.org/press-media/press-releases/about-60-percent-of-universities-reported-online-learning-provisions-in-their-strategic-planning-pre-covid-19/>.



Copyright for the content of articles published in *Teaching & Learning Inquiry* resides with the authors, and copyright for the publication layout resides with the journal. These copyright holders have agreed that this article should be available on open access under a Creative Commons Attribution License 4.0 International (<https://creativecommons.org/licenses/by-nc/4.0/>). The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited, and to cite *Teaching & Learning Inquiry* as the original place of publication. Readers are free to share these materials—as long as appropriate credit is given, a link to the license is provided, and any changes are indicated.