# Teacher Motivation During the Corona Crisis, Facing "Black Screens" and Missing "Watercoolers"

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**Abstract:** There are several studies on how to motivate students. This is accomplished by flipping the classroom, by using student-active methods, games, simulations, etc. But how to motivate the teacher/lecturer in online education? It is often a very lonely experience to be an online teacher, as many students may not be comfortable interacting in this medium. Teachers and lecturers are obliged to keep up with the minimum standard of technology decided by their university/employer. But for teachers and lecturers, e.g., in music education, who are musicians, have degrees in history or a second language and are not tech geeks, or who are even close to using tech stuff other than their cell phones, TV set and the like, to keep up with education tech might feel like a daunting task. Regarding providing online education for them, it might be a matter of just connecting to an existing, well-tested system. However, the corona crisis has made many non-tech teachers and lecturers take the leap into a more online world of education. But with this, new issues arise, such as "black screens", from a classroom where one can ascertain to a certain extent whether the students are grasping the communicated lessons, to black screens where the lecturer needs to rely on the students' feedback to confirm the learning outcome. Nonetheless, for a various number of reasons, there are few students who respond. The way academics have seemed to lend a hand and share experiences, know-how and otherwise been helpful to each other, may have helped regarding the motivation to lecturing online, and to learn to handle more tools that are helpful for online education. Getting and feeling support from fellow teachers and lecturers can be a source of motivation. Yet, even the "watercooler" is no longer available. The paper shows research among the faculty staff at the Inland Norway University of Applied Sciences, Business School – Faculty of Economy and Social Sciences. The focus of the research has been what has motivated them to make use of digital tools for lecturing, and what they are motivated to continue using after the corona crisis has finally passed.

**Keywords:** motivation theory, self-efficacy, black screens, e-learning, missing "watercooler"

## 1. Introduction

The Inland Norway University of Applied Sciences has been a substantial provider of online courses for many years now. However, most of the lecturers have lectured face-to-face in classrooms. As a result of the Covid-19 pandemic and subsequent lockdown, it became paramount to provide all courses and concurring lectures online, since campuses were closed for students and faculty staff. Not only did the lecturing have to be offered online, but from a home office more or less equipped for the task. This also spurred the development of tutorials for the lecturers, now in home offices. Tutorials provided in the Learning Management System (LMS) enabled the lecturers to produce lectures and complete courses, and as the crisis became prolonged, another two semesters of lecturing online. Although this emerged from a crisis (Coombs, 2019), the general perception among the faculty staff and students is that this has been a successful transition, particularly when taking the circumstances into account.

In this paper, we will use as the starting point a survey conducted at the Inland Norway University of Applied Sciences. The purpose of the survey was to map students' experience of teaching and experienced learning outcomes during the COVID-19 shutdown. The survey unveils a discrepancy between full- and part-time students regarding the perceived loss of learning outcome, regardless of teaching methods. The full-time students experienced the online lecturing as less rewarding than the part-time students.

The survey further shows that students have experienced social isolation, with a lack of social contact and collaboration with other students, as well as contact with lecturers during the pandemic having had a negative effect on the learning outcome. This lack of social contact between the students has resulted in many "black screens", as nearly half the students tend to feel "exposed" when they have their camera on. They prefer not to be visible, although they also report that this reduces their learning outcome (Marek, Chew and Wu, 2021).

Some lecturers experience that the aliases behind the black screens also do not take part in any groupwork or other student-active pedagogical approaches in the lectures. "Black screens", and a lack of taking part in groupwork and other activities, challenge some of the approaches suggested for the lecturers. It is the lecturers' responsibility to initiate interaction and dialogue during classes, though inexperienced lecturers in the online medium may find this situation somewhat challenging. According to Moore (1997), it is a matter of finding a balance between the presentation of the academic content and interaction and dialogue.

Another assumption is that it is a very lonely task to sit in solitude in front of a camera, and that one may experience it as a strain. There may be very little feedback when one does not meet face to face. When students turn off the screens, there will be less interaction between students and lecturers, and less feedback to lecturers on their teaching.

A third assumption is that it is experienced as over-extensive work to learn new tools. To teach online requires twice as much from the lecturers, as the lecturers and students are geographically distant from each other, and thus physically separated. We assert that to not see the students' non-verbal signals will require more from a lecturer when the lecturer and students communicate through digital tools. The lecturers are forced to conduct online education; our investigations show that the lecturers are more motivated to use new digital tools in ordinary lectures.

Not having a choice and facing unforeseen obstacles, such as black screens and less contact with peers, the lecturers have carried on and finished nearly three semesters online. We assert that this is due to motivational factors beyond that of "ordinary" work motivation.

Hence, our research question is:

**How has the Covid-19 crisis affected teacher motivation?**

In the following, we will present the theoretical foundation that has enlightened our study, followed by our results and discussion. We then conclude and suggest further research.

## 2. Theoretical foundation

Work motivation has been, and still is a research field of immense interest. From Elton Mayo's research in the Western Electric Company in Hawthorne, the results of his investigations culminated in a "new" direction within an understanding of what was to become the "human relations" direction within organizational theory (Mayo, 1930; Hatch, 2018). The understanding that there are aspects about work other than monetary motivation was described by Herzberg, in dividing motivational factors into the intrinsic (motivators) and extrinsic (hygiene), where the intrinsic, like being recognized and achievement of support in job satisfaction, and extrinsic, like wages, though not necessarily contributing toward job satisfaction (Herzberg, 2017).

Maslow's hierarchy of needs (1981) is useful regarding a basic understanding, in which the physiological needs are the basics, before safety and social needs, thereby supporting the ego and finally self-actualization. Even so, Vroom's theory depicts how employee effort leads to performance, which in turn will lead to rewards that are either negative or positive. The negative rewards will demotivate, while conversely, the positive may support motivation (Vroom, 1964). From a managerial point of view, behaviours that lead to positive outcomes should be repeated and reinforced, while to the contrary and according to Skinner (2019), behaviours that lead to negative outcomes should be negatively reinforced.

Vroom's definition of work motivation is "a process governing choices made by persons or lower organisms among alternative forms of voluntary activity" (Vroom, 1964; Kleinginna and Kleinginna, 1981). The "process" in this case is governed by the crisis and by the choices made available to the teachers.

Another definition of motivation is offered by Silverman (Silverman, 1971; Kleinginna and Kleinginna, 1981): "Motivation concerns those events – the pushes and pulls that move us to action... variables that activate, energize and frequently direct behaviour." The "pushes and pulls" are again the crisis and the available options for the ongoing work. Learning something new, and by mastering the new tools, may activate and provide the energy to try new ways of utilizing the technology. This also applies to Wlodkowski's (1978) definition:

"Motivation is the word used to describe those processes that can: a) arouse and instigate behaviour; b) give a direction or purpose to behaviour; c) continue to allow behaviour to persist; and d) lead to choosing or preferring a particular behaviour."

This points toward Bandura's (Bandura, Freeman and Lightsey, 1999) (Bandura, 1978, 2006; Bandura, Freeman and Lightsey, 1999) self-efficacy. Perceived self-efficacy is a "judgement of capability to execute given types of performances" (Bandura, 2006, p.309). Bandura also states: "The outcomes people anticipate depend largely on their judgments of how well they will be able to perform in given situations" (Bandura, 2006, p.309). This means that what the teachers have expected to be able to achieve largely depends on how well they think they can perform. Low expectations may therefore lead to a high perceived self-efficacy if they succeed, while high expectations may lead to a low perceived self-efficacy if they feel that they have not succeeded. The individual's belief in mastery regarding a task has a central meaning regarding the introduction of new digital work methods. Resistance to change is quite common, and is often associated with extra work that may seem stressful if the workers do not experience competence and coping skills. It is important to have common goals, good training and support from your colleagues. Having coping skills is essential to success regarding the introducing of digital tools.

In his transactional distance theory, Moore (1997) emphasizes that to succeed with an online teaching dialogue and communication are important. His theory includes "the universe of teacher-learner relationships that exist when learners and instructors are separated in space and/or time" (Moore, 1997). Moore (1997) called these universes, which exist between teacher and learner relationships when they are separated by space and/or time for the transactional distance. Online teaching results in an interaction between teachers and learners in a context having the special characteristics of a separation of teachers from learners. This psychological and communication space is termed transactional distance. According to Moore (1997), videoconferencing as media will permit a more intensive, more personal and more dynamic dialogue than can be achieved in using a recorded medium. Audio conferencing systems are therefore likely to reduce the transactional distance more effectively than programmes using recorded media.

If teachers experience low subjective coping skills and are insecure, the probability of having them use the digital tools is low, so they will consequently reduce their efforts and their goal. One can assume that it is important that co-workers who experience positive coping skills feel competent and have faith in themselves. Co-workers with a low sense of coping skills have a tendency to lower their aims or give up, and become sensitive regarding negative feedback or even a lack of feedback. They will often react negatively and defensively. A person with positive coping skills makes a greater effort regarding difficult challenges, and will react positively and offensively towards negative feedback (Bandura, Freeman and Lightsey, 1999). There are of course large individual differences in the degree of coping skills and input when new digital work methods are introduced.

Digital communication may be challenging because of the vastness of the information, whereas nonverbal evidence may be reduced through a camera; it may thus be difficult to achieve two-way communication when there is little non-verbal evidence and little spontaneity in the communication process. Mediation without words often occurs spontaneously, and non-verbal expressions such as eye contact, touch, body movements and facial expressions are non-existent. Non-verbal communication and behaviour may be important in regard to explaining or disturbing the meaning in verbal communication, and misunderstandings may arise (Daft and Lengel, 1986).

Self-determination theory (SDT) (Deci and Ryan, 2012) distinguishes between autonomous motivation and controlled motivation. The autonomous motivation is a combination of intrinsic motivation and extrinsic motivation that people "have identified with an activity's value, and ideally will have integrated it into their sense of self" (Deci and Ryan, 2012), thereby allowing the persons to experience volition. Conversely, the controlled motivation is both external and introjected regulation that may pressure people to behave, think or feel in a special way. The feeling of competence, relatedness and autonomy are strongholds within SDT, although there are individual differences in the levels of these components.

Regarding work motivation and SDT, the same "rules" apply; people take part in an activity because they enjoy it or find it interesting (intrinsic motivation). Being controlled, such as by using extrinsic rewards, leaves the persons with a sense of pressure and demand for carrying out an action (Gagné and Deci, 2005). Cardinal to SDT is that if the autonomy is supported in a social context, people's level of identified and integrated motivation for

an activity will be enhanced. Studies also show that people who receive feedback and rewards in a social setting supporting autonomous behaviour enhances the intrinsic motivation (Gagné and Deci, 2005). This also applies to autonomous-supportive managerial behaviour towards employees. In allowing a workforce to be autonomous and support initiatives, and rewarding it accordingly, will ultimately enhance the worker's intrinsic motivation. Also, enabling the workforce to understand the importance of different initiatives provides an extrinsic motivation (Gagné and Deci, 2005).

Gagné and Deci (2005) also refer to "organizational citizenship", which is a concept that includes "voluntarily behaviour", such as helping colleagues to have a positive impact on motivation, unless it is performed to solely promote self-interests toward management.

Collaboration and cooperation are important within social learning theory (Vygotsky, 1980), and can be within groups or teams (Hjertø, 2013). There are several different definitions of both the term collaboration and cooperation. In a literature review seeking to determine the differences Castañer and Oliveira (2020, p. 986) propose a redefinition based on this review to be: "Collaboration refers to voluntarily helping other partners to achieve IOR [Inter Organizational Relationships] (common) goals or one of more of their private goals". They further state that "the cooperation refers to the attitude, behaviour and outcome of the implementation of those goal as agreed on" (p. 994). A further definition of cooperation is offered by Salvato, Reuer and Battigallli (2017, p 963) as: "Joint work performed by persons who share a common goal, where the alignment of interest is central" , and collaboration as "Act of working together by two or more persons to accomplish something". Based on these inputs, our preferred understanding of collaboration is about helping other to achieve common and private goals, and that cooperation is about agreeing on common goals and working together to achieve them.

Collaboration on learning may be done in Communities of Practice (CoPs) (Lave and Wenger, 1991; Wenger, 2011). However, a collaboration and cooperation that extend outside the classroom/online lecture does require personal contact. The contact and social relations that students obtain in an ordinary classroom where there are possibilities to mingle in-between the classes, during lunchtime or during breaks, may be undervalued. Within blended learning, it is also possible to induce collaboration regarding groupwork on mandatory assignments. The assignments may be about their workplace and workplace-related or other areas, which may have some relevance regarding work (Priniski, Hecht and Harackiewicz, 2018; Vold and Haave, 2020). The assignments may be training for being enabled to bring the learning back to the workplaces. Assignments allow for reflection (Schön, 1984, 1987), and it is possible to organize assignments during the sessions with the teacher (both live and/or online) that spur reflection in such a way that they can reflect prior to, during and after the assignment. This resembles the reflection that we see in Kolb's (1984) experiential learning cycle.

Previous investigations (Haave, Hole and Vold, 2016) show the importance of the "small talk" shared by the students during, for example, breaks may be more important for the learning outcome of the students.

This "small talk" has also been recognized as "watercooler talk" (Navrbjerg and Minbaeva, 2020). The informal contact and exchange of information, courtesies and "gossip" at the watercooler is important for the organization, as it may lead to forming CoPs, while also possibly being a way of sharing knowledge. Being in a home office distances many workers from a social setting, with both the mental and physical distance possibly taking its toll on many workers. Whether feeling included or excluded will impact on work performance. Combined with the physical distance, questions like "Do I deliver enough?", "Am I qualified for this?" and worries about the job situation ("Will I have job in the future?") may have a negative effect on work performance (Navrbjerg and Minbaeva, 2020).

## 2.1 Material and psychological tools

According to Vygotsky (2001), all interaction must be seen in relation to the tools used. Vygotsky (2001) distinguishes between psychological and material tools. Psychological tools (thinking and language) are means of communication and interaction between people, and are used together with material tools. For example, material tools can be a computer. Psychological tools, such as communication, are used together with material tools.

To achieve increased student activity and engagement using Zoom (and thus avoid black screens), a study from the United States (Lee *et al.*, 2021) shows that students should to a greater extent be given opportunities to share themselves and relationships that are emotionally close to them. The teaching must be experienced as meaningful. They suggest three activities that can contribute to a more authentic engagement in the digital classroom, and even moments of joy: The first activity is "Show & tell", in which both students and teachers present a digital page in, for example, Google Slide, which is called "This is me". This contains conditions that are perceived as meaningful, such as leisure activities, favourite music and engagements like #Blacklivesmatter. The other is a personal project. Based on the principles of participatory theory, students work on a project over a longer period of time, which includes a topic that has personal significance for them in relation to the subject, e.g., art and the internet, harassment on social media, political polarization and mental health under Covid-19. The third and final activity is to give a positive response to fellow students to contribute to a learning environment, in which students feel a greater degree of security, trust and openness. All activities are about being seen, heard and feeling welcome, and contribute to a greater degree of "closeness" in a digital classroom.

## 3. Methodological approach

We chose a quantitative study (Cohen, Manion and Morrison, 2002) using a net-based freeware survey developed at the University of Oslo called "Nettskjema" (see: https://www.uio.no/english/services/it/adm-services/nettskjema/). This was chosen because we have had a limited amount of contact with our fellow colleagues. Some lecturers have worked together, though not all, so to reach as many as possible a survey was chosen as the best approach.

The number of respondents was 15, and the survey was sent to a department with approximately 40-45 faculty staff members. This means that it was only approximately 30% of the faculty staff who replied. Hence, our results can only indicate a trend, and not determine the truth.

## 4. Results and discussion

All of our colleagues who took part in the survey used Zoom, whereas some also used other tools for videoconferencing. Zoom was introduced in March of this year, so most of our colleagues have not been using it for that long. Approximately half the respondents have used "Breakout rooms". Here, the students are in smaller groups.

This shows that all of the participants in the study have learned a new tool, and half have explored different features in this tool. Having and utilizing the dividing of the students into smaller groups allows the teachers/lecturers to follow up with the students when they are given a task.

Even if the students and lecturers are separated in space, this feature, combined with that they are fewer per group, will make it easier to reduce Moore's transactional distance (Moore, 1997).

Regarding the gaining of contact with the students, six out of 13 claim that it is difficult to get a conversation going with the students. However, only four out of 15 claim to feel alone. Seven out of 13 only saw black squares and not faces, although seven out of 13 claim to have established good discussions in the digital classroom.

This may be due to a sense of a transactional distance (Moore, 1997), which may cause the students to be reluctant to answer or provide feedback. It may also be due to the lack of nonverbal communication, which may trigger the students in a "live" classroom setting. The lack of nonverbal communication may feel alienating; consequently, the students may feel extremely exposed when asking questions (Daft and Lengel, 1986).

This lack of contact may lead to a sense of not achieving, or not being able to perform optimally. This in turn may lead to what Navrbjerg and Minbaeva (2020) describe in their model about not being able to deliver.

A total of 86% claim to have cooperated with colleagues, while cooperation with other lecturers has been very important for many (nine out of 14). Thirteen out of 14 have also received help from other colleagues, while nine of 14 claim they have helped others. Twelve of 14 confirm that it was a true support to work with others, while 13 of 14 want to continue cooperation with one or more colleagues.

This confirms the social learning theory (Vygotsky, 1980), as the collaboration and cooperation have been rather extensive. The lecturers have cooperated in order to figure out how to use the tools provided to them. Some lecturers have a greater experience using different tools, and even though we have not collected data on whether it was the experienced ones who helped the less experienced ones, there is a reason to assume that this is what occurred. This resembles the CoP collaboration that Lave and Wenger (1991) refer to. This also confirms the importance of social support within SDT (Deci, Connell and Ryan, 1989; Gagné and Deci, 2005; Deci and Ryan, 2008). Keeping up motivation requires social support in autonomous settings. We also detect a certain "organizational citizenship" as people seem willing to share good ideas.

The lecturers felt very motivated to learn new tools (93%), and to make streaming videos (64%). The faculty staff was also motivated to make use of the tools after the corona crisis (93%). Only 7% of the faculty staff experienced low mastery and stress. The main motivational factors for learning new tools, and to help endure this semester, were a sense of duty, and that they were motivated by the crisis itself. The lecturers' response on wanting to use the tools after the crisis shows that they have had a sense of personal mastery. The low number that reported on stress and a low mastery help to confirm this. And even if the motivational factor for learning new tools has been the crisis, it is encouraging to read that they will also use some of the tools as part of their educational tools after the crisis. This implies a sense of self-efficacy (Bandura, 1997) as they see an extensive use for the tools, so we may therefore assume that they have plans for how they can use them. This is somewhat contrary to a study by Marek, Chew and Wu (2021), who conducted an international study among higher education institutions about transferring the education to online and digital media during the Covid-19 pandemic. Their findings show that the teachers experienced a high level of stress and an increased workload.

The news about the international and national crisis the Covid-19 virus and the sense of urgency in the educational sector to "carry on", we may assume have promoted the sense of importance of the work as lecturers and thus motivated for learning tools in order to keep up the ordinary work (Gagné and Deci, 2005).

## 5. Conclusion

To answer our research question: "How has the Covid-19 crisis affected teacher motivation?", we can conclude the following:

The crisis caused a lot of faculty staff to learn new tools. This was through the help of IT services, as well as by colleagues. This social learning has been a positive feature, and may have contributed to the feeling of personal mastery and self-efficacy (Bandura, 1997). It may also have aided in the process of working with the tools to such a degree that they considered using the tools upon returning to ordinary on-campus lecturing. This implies a positive effect on teacher motivation.

Most of the staff has had to work rather autonomously, and through our investigations we assert that most of the respondents have a sense of being motivated both intrinsically through their mastery and perceived self-efficacy, and extrinsically through their feedback from their superiors and peers (Bandura, 1991; Gagné and Deci, 2005; Deci and Ryan, 2012).

The students are not as active as the faculty staff would like them to be. This may be due to the transactional distance (Moore, 1997) caused by the transition to an on-campus and live setting, and into a digital online setting. The lack of nonverbal communication lost due to this transition may also have contributed to this (Daft and Lengel, 1986). Although this may contribute to a negative motivation, we assert that the collegial support helps to counter this.

Our total impression is that despite setbacks and less motivational factors, such as "black screens", missing "watercooler talks" and a low rate of communication with students, the intercommunication with colleagues are supporting the motivation, and that the total motivation for the work is high (Vroom, 1964; Silverman, 1971).

### 5.1 Further research

We would suggest extending the research with a qualitative approach. In-depth interviews with our colleagues would provide us with more substantial data, as this would support the validity and reliability of our data (Cohen et al., 2011).

Since this would be a period after the survey, it would also be beneficial to include a reflective look at the crisis when it was at its peak. It would also be possible to confirm (or not) whether or not they later used the tools as they claimed in the survey.

It would also be interesting to look at the long-term effects of working from home. Issues like: Will the collegial cooperation and collaboration sustain themselves during a long-term crisis? What managerial issues arise over time? And what will be "the new normal", with a focus on sustaining the motivation of the teachers? Hence, the research should be followed up, both to look at the short-term effects, but also to look at the long-term effects on the motivation of teachers.

Equally important is investigating the long-term effect of the excess workload that has followed the conversion to online education (Marek, Chew and Wu, 2021).

## Acknowledgements

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