



Online education and organisational space in business schools during the COVID-19 pandemic



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Purpose: The article studies how the shutdown of campuses and subsequent change to online course delivery during the coronavirus disease 2019 (COVID-19) pandemic have changed the experience of organisational space in management education.

Design/methodology/approach: The study utilises a mixed methods approach to data collection and analysis with questionnaires. For a better understanding of spatial experience, a deeper hermeneutic analysis of course design and delivery is undertaken as well.

Findings/results: Without the possibility to rely on physical presence, a sense of togetherness in management education is established in different ways, using digital technology to improve time management, get better visual impressions, relate teaching more closely to application environments, etc.

Practical implications: The loss of territorial spatial structure on campus can be partially compensated by a different spatial structure resulting from technically mediated experiences of relatedness and proximity in online course delivery by management educators.

Originality/value: The article sheds light on the different possibilities to establish educational spaces at business schools, expanding the ongoing discourse on organisational space to the domain of teaching and learning in the digital age.

Keywords: educational space; business schools; management education; COVID-19; distance learning; virtual classroom; organisational space; transactional distance.

Introduction

Organisational research, like many other disciplines, has developed an increased interest in space and place beyond the mere arrangement of physical territory (Clegg & Cronberger, 2006; Van Marrewijk & Yanow, 2010). During the last decades, scholars have started to ask questions about the locatedness of an organisation (Crevani, 2019), the boundaries between inside and outside (Hernes, 2004), experiences of space among its members (Möslein, 2020), and more. The heterogeneity of perspectives and research interests makes it difficult to recognise a common agenda in this work (Taylor & Spicer, 2007). Nevertheless, there seems to be general agreement that much can be learned about an organisation from the study of its territorial location and the different forms of distance and proximity that affect the interplay of its members. This conclusion also applies to business schools and other institutions of higher education – and arguably even more so than elsewhere, as education shapes characters and careers.

The article at hand studies the space and place of management education against the background of the coronavirus disease 2019 (COVID-19) pandemic, which has strongly affected business schools, just as it has most other institutions all over the world. Higher education has introduced measures to fight the spread of the virus very early on during the pandemic (Ali, 2020). In many countries, students and staff were not allowed to meet in person, and access to campuses was strongly restricted. All courses, exams and other interactions had to take place exclusively on digital media. Recent publications have already discussed effects of these measures on student experience, health, learning, teachers' motivation and more (e.g. Aguilera-Hermida, 2020; Aristovnik et al., 2020; Cicha et al., 2021; Coman et al., 2020; Jelinska & Paradowski, 2021). Fairly little, however, has so far been said about organisational space. The fact that campuses have been closed down does not mean that this space has disappeared. As business schools and other institutions of higher education continued to teach, they also sustained a notion of relatedness

and proximity among students and teachers. Despite their physical distance, they could still come together virtually with the support of modern information technology. The study presented here is concerned with students' views on this phenomenon. It investigates how their experience of space in online courses has been different from the experience of space in conventional classroom settings. Furthermore, it explores how the courses were able to establish a notion of relatedness and proximity among the attendees.

Theoretically, the article draws on the concept of transactional distance in educational research (Moore, 1993). It argues that all educational efforts need to implement measures to overcome this distance. Prior studies have elaborated different dimensions of transactional distance, in particular the relations between teachers and students, students and other students, students and the subject matter and students and technical interfaces (Moore, 2013). While the aim of these works has so far been focused on pedagogical questions, this article turns the attention to the experience of space itself as a result of transactional distance. This article studies educational space during the pandemic on the example of two courses at a university in Central Europe. The two courses can be considered particularly revealing in this context, because they did not try to recreate offline teaching conditions but explored the inherent potential of digital media to cope with transactional distance in different ways than traditional courses. Based on the analysis of these courses, the article identifies new potential to establish organisational space in management education when courses take place online and names critical factors in making use of this potential. For business schools in Africa, which often face numerous infrastructural challenges, this potential may be particularly interesting to provide management education to broader groups of students.

Background

Organisational space, enactment and narrative

Since the first, rather cursory reference to a spatial turn by Soja (1989), the term has been used to describe paradigm shifts in many different disciplines, including theology (Bergmann, 2007), history (Withers, 2009), law (Philippopoulos-Mihalopoulos, 2011) and healthcare (Richardson et al., 2013). Where earlier work may have simply referred to the death of distance and the annihilation of geography in the view of global networked societies (Cairncross, 1997; McLuhan, 1962), scholars nowadays paint a more nuanced picture of territorial structures and spatial experience (Ash et al., 2018; Lambach, 2019; Warf, 2017). Digital technology, but also economic development, political change, along with environmental and ecological crises draw the attention of scholars to the manifold of different ways in which space is shaped and experienced in human interaction (Warf & Arias, 2008). Following Lefebvre (1991), most research on this subject takes a constructivist stance on space, inasmuch as they consider it an outcome of human effort in social interaction rather than a Kantian *a priori* to human experience.

Taylor and Spicer (2007) give an overview of management literature related to the spatial turn. They distinguish three major approaches. The first is concerned with the interplay between physical environments, technical infrastructure, workplace layouts and distance in organisations (e.g. Duffy, 1997; Elsbach & Pratt, 2007; Greene & Myerson, 2011; Hatch, 1987). The second approach is focused on manifestations of power relations in the configuration and use of spaces (e.g. Dale & Burrell, 2008; Kondo, 1990; Leitner, 1997), while the third approach looks at symbolic and aesthetic aspects of spatial experience (e.g. Taylor & Hansen, 2005; Yanow, 1995), based on different cultural markers and latent patterns of interpretation. Taylor and Spicer (2007) suggest an integration of all three approaches to develop a holistic conception of 'organizational space as patterns of distance which are interpreted by actors within materialized relations of power' (p. 341).

Ropo and Höykinpuro (2017) take another step towards a constructivist account of organisational space by considering it as a narrative. Following Lefebvre (1991), they distinguish expressions of space in the form of (1) conceived space in architectural plans and physical dimensions of buildings, (2) perceived space in its practical usage and (3) lived space in the experience that human beings make with space (see also Watkins, 2005). Ropo and Höykinpuro (2017) conclude that organisational space is continuously reshaped and restructured through personal, embodied experiences, memories and sensuous perceptions. It can thus be studied not only through buildings and appliances, but also through organisational routines (e.g. Paananen, 2020) and communicative acts (e.g. Wilhoit, 2016).

In line with these arguments, the following investigation considers the organisational space of business schools much less as a physical or digitally mediated virtual space in which research and education takes place, but rather as a dynamic expression of togetherness among the members of the business school. The research interest in this article is focused on the educational dimensions of this space, as they result from the teaching activities that are conducted at the business school.

Space in management education

As educational spaces, campuses and individual school buildings are considered to have effects on the development of professional identity, values and ideals of students (Jandric & Loretto, 2020; Taylor, 2019) and the emotional engagement of the students in university life (Ağlarcöz, 2017; Beyes & Michels, 2011). They provide an environment where teachers assume many different functions in interacting with students to promote their development (O'Neil & Hopkins, 2002). At the same time, however, business schools are frequently criticised for being elitist clubs that have lost track of their true educational purposes and become self-referential (e.g. Khurana, 2007; McDonald, 2017). This challenges their purpose to prepare students for industrial practice and enable decision-making in accordance with given application

contexts (Carroll et al., 2008; Ghoshal, 2005; Gosling & Mintzberg, 2004; Weick, 2007).

With respect to specific pedagogical goals and course formats, Kolb and Kolb (2005) speak about learning space in management education, which is connected to the idea of situational learning and experience learning as a holistic process for acquiring knowledge and skills (see also Lave & Wenger, 1991; McCarthy & McCarthy, 2006). They contend that by using a systematic design of learning spaces, the acquisition of contextual knowledge and practical problem-solving skills can be enhanced. According to Kolb and Kolb (2005), different kinds of learning spaces are connected with different practices of learning and knowledge processing, which range from active experimentation to reflexive observation and from concrete experience to abstract conceptualisation.

As Arbaugh and Warell (2009) show, the potential of online courses for management education has raised increasing attention since the turn of the millennium (see also Arbaugh, 2010). The ubiquitous availability of technical devices further supports this development (Gill, 2009), with increasing potential to activate students (Rollag & Billsberry, 2012) and move education closer to industrial application scenarios (Netland et al., 2020). Many institutions of higher education are known to have already gained much experience with digital media (Rhode et al., 2017). In addition to general learning management systems, lecture recordings have become a particularly popular means of expanding teaching into virtual space (McGarr, 2009; O'Callaghan et al., 2015). Features such as pausing and repeating video streams have been recognised as advantages of lecture recordings (Bolliger et al., 2010; Giannakos & Vlamos, 2013). Nevertheless, the usage of lecture recordings does not necessarily improve educational experiences (Luttenberger et al., 2018). Many teachers and students perceive it as a limitation because many patterns of classroom interaction cannot be continued virtually (Bond et al., 2018; Kazlauskas & Robinson, 2012).

When it comes to business schools as organisational spaces for management education as discussed by Taylor and Spicer (2007) or Ropo and Höykinpuro (2017), the impact of online teaching does not yet seem to have received appropriate attention. Studies such as Bond et al. (2018) or Kazlauskas and Robinson (2012) suggest that constitutive elements of organisational space in conventional course settings are missing, as people are not able to bond in the same way as they do when they are physically present in the same room. What remains widely unclear, however, is the possibility of online teaching to compensate for this deficit through alternate approaches that do not recreate the same situation as elsewhere but instead establish a notion of relatedness and proximity that allows one to speak about organisational space in a new way.

Transactional distance and organisational space

To understand the peculiarities of organisational spaces in education, the analysis presented here uses Moore's (1972, 2019)

concept of transactional distance. Transactional distance can be described as 'the lack of common or mutual perception of knowledge, thoughts, approaches but also needs (psychological and educational), emotions, etc.' (Giossos et al., 2009). The choice of the term draws on Dewey and Bentley's (1946) concept of transaction as unfractured observation, in which all aspects of experiencing a situation are woven into one another (Boyd & Apps, 1980). Roughly speaking, one could say that transaction concerns the holistic engagement in a course or the degree to which a subject matter 'comes alive'. The concept of transactional distance provides a means to address the degree to which an actual course setting departs from this ideal, in particular where teachers and students are geographically separated from each other (Moore, 2019).

As shown in Table 1, research on transactional distance considers a variety of different dimensions, such as the distance between students and teachers, students and other students, students and content or students and learning interfaces (Moore, 2019; Swart et al., 2014). Geographic dispersion of students in online courses influences the perception of transactional distance (Kassandrinou et al., 2014), but transactional distance does not necessarily have to be larger online (Horzum, 2011). Lectures in large auditoriums with a high number of students, for example, can also put strong constraints on the holistic engagement of the students. According to Swart et al. (2014), studies may assume for practical reasons that teaching can proceed without any transactional distance at all, but they have to keep in mind that this kind of course delivery remains a nebulous ideal: any systematically structured form of education must be expected to create some sort of gap between the phenomenon that is addressed, the teacher and the student. Here, the concept of transactional distance relates to the concept of organisational space, as the different dimensions of transactional distance enable a distinction between different patterns of relatedness and proximity in education – independently from the specific learning outcomes that are achieved. These patterns provide the groundwork for experiences of togetherness, as they are expressed in narratives of organisational space.

Research design

Aim and object of study

The study presented here investigates how students experienced organisational space in management education during online teaching in the course of the COVID-19

TABLE 1: Dimensions of transactional distance.

Number	Dimension	Items addressed in this dimension
1	Student–teacher	Attention to students, feedback, response to questions, individual support
2	Student–student	Mutual support and encouragement, respect, personal bonding
3	Student–interface	Access to resources, active operation of devices, ease of use
4	Student–content	Interest, attraction, orientation, application of theory and judgement

Source: Adapted from Swart, W., MacLeod, K., Paul, R., Zhang, A., & Gagulic, M. (2014). Relative proximity theory: Measuring the gap between actual and ideal online course delivery. *American Journal of Distance Education*, 28(4), 222–240. <https://doi.org/10.1080/08923647.2014.924721>

pandemic. Based on the aforementioned conceptual background, organisational space in management education is associated with a sense of togetherness, resulting from different patterns of relatedness and proximity in the practice of teaching. These patterns are the main object of interest on the following pages. The study uses a case study approach with intrinsic interest in the case itself. The study does not intend to unveil or confirm specific causal relationships. It wants to give insight into the facets of transactional distance that need attention in the given situation and their significance for spatial experience.

The two courses were held at a university in Central Europe during the summer term of the year 2020. Both courses were offered as part of the management education programme at the university. One course was aimed primarily at bachelor's students while the other evaluated course was presented to master's students. Because of the different curricula in the respective bachelor's and master's programmes at the university, however, some graduate students also took part in the undergraduate course and vice versa. Fifty-one students registered for the bachelor's course while 104 enrolled for the master's course. Both courses were expected to be held in medium-size lecture halls. In the surveys conducted on the courses, 98% of the attendees claimed to have an intrinsic interest in the subject matters of their respective course. Fourteen per cent named scheduling and practical issues in their curriculum as a reason for attendance. Forty-four per cent indicated they had already met the lecturer in another course. Minimal deviation manifested between undergraduate and graduate students.

The courses were originally planned to be delivered in a very 'traditional' format (see Edwards et al., 2001; McGarr, 2009) where students sit next to each other in a lecture hall, with many opportunities to interact. During the lecture, they all face the lecturer, which limits the potential for nonverbal communication between students but still allows them to exchange thoughts with their neighbours. Lecturers can establish eye contact with the students. However, only the first rows of the lecture hall are close enough for direct conversation, unless the lecturer moves around in the aisles. Although students and lecturer are in the same room, the set-up establishes a certain distance between each other, which limits the potential for verbal and nonverbal communication. Furthermore, the lecture hall provides a dedicated learning environment that distances students and lecturer from the subject matter. The environment is rather designed to reflect on practical experience than to engage with it directly, as one would in vocational education.

Because of the pandemic, lecture halls, classrooms and all other facilities for teaching on campus were shut down. It was therefore not possible to establish proximity by means of physical presence. The lectures were moved to the university's online teaching and course management platform. Extant infrastructure for data sharing and collaboration was scaled up to enable the use of the software in all courses that were

held in this semester. However, the available capacity was not considered sufficient to support synchronous interaction between lecturers and students. For this reason, lectures had to be provided as recorded video streams.

To avoid an increase of transactional distance, the two courses studied here explored alternative ways to establish proximity. The missing availability of lecture halls was not considered a threat but rather an opportunity to move teaching closer to the subject matter and reduce the gap between students and lecturers that results from the architecture of traditional lecture halls:

- Many parts of the videos were recorded in the application environment that they concern. For the bachelor's course on service design, this means that the lecturer walked through the city and addressed the design of public transportation, mail delivery and others while using it. For the master's course, parts of the lectures of the course were recorded in factories and application environments in which the manufactured products are used.
- The lecturer was recorded in close-up views or waist shots in the lecturer's home office, giving the students direct insights into the working conditions under which he pursues his research. This also included the discussion of typical objects in the household in reference to the topics of the lecture.
- Wherever figures and formulas were developed or information technology was used, the recording switched between an 'over the shoulder' perspective and a close-up, with the lecturer talking about the different steps of his thought processes.
- The students were given exercises in which they could pursue the same patterns of activity for themselves, as they walked through the streets of a city or accessed online data on the automotive industry and used demo software for planning.

Because of the short time frame in which the transition to the digital course format had to take place, the quality of the recordings was initially not as good as current technology could have allowed. Resolution, sound, lighting, picture stability and online availability of the recordings were partly flawed. Only the most recent (i.e. the last recordings presented in the course) reached a higher level of standard.

Methodology

As Taylor and Spicer (2007) note, organisational space results from the interplay of very different efforts of planning, practising and imagining relatedness and proximity. For a large part, the propagation of a spatial turn in social science seems to be driven by the insight that mutual dependencies of these efforts require more attention (Lefebvre, 1991; Soja, 1989). The design of physical workplaces and technical infrastructure anticipates practice; it is informed by experiences and attributions of meaning, which have themselves evolved from practice within specific territorial structures and enabled by technical tools and infrastructures.

Drawing on Ropo and Hoykinpuro (2017), the article at hand considers the outcome of this interplay as a narrative of organisational space, which is studied here using the example of the abovementioned courses. The narrative is reconstructed on two levels: (1) the overall constitution of organisational space in the delivery of the courses and (2) the building blocks of the underlying patterns of transactional distance.

The study takes a mixed methods approach to data collection and analysis (cf. Tashakkori & Creswell, 2007), which draws on different kinds of source material. In addition to a qualitative hermeneutic approach to the course documents and the student submissions for the exercises on the online platform, this study relies on two major data sources. Firstly, the study employs responses from the standard evaluation forms that the university uses for all its courses in a particular term. Secondly, the students were asked to complete an additional questionnaire that contained more specific questions about the shift to online teaching in response to the pandemic. This gave further insight into the measures taken to create proximity in delivering the two courses described above. To align with the standard evaluation form, the questionnaire adopted the same Likert-scale design for closed questions, while students were also given the opportunity to elaborate in their own words on different aspects of their learning experiences and course perception.

Overall, the study follows what Creswell and Plano Clark (2007) describe as an embedded mixing strategy, complementing closed-ended information with open-ended information to increase the depth of the analysis and enable the elaboration of specific insights (see also Kaplan, 2015; Small, 2011). A known advantage of mixed methods approaches is their ability to increase the trustworthiness of the findings (Cuervo-Cazurra et al., 2020). In view of the uniqueness of the COVID-19 pandemic, it seems particularly important not to rely on any single data source, but to take all available material on the courses into account, reducing the influence of momentary impressions at the time of data collection on the material that is analysed.

The general evaluation form used by the university covers questions on course structure, clarity and perceived learning as well as questions on teaching practice in the courses, technical infrastructure and devices used. The questionnaire was designed to complement these questions by asking students for further input about the specifics of teaching during the given semester. Apart from general enquiries into student demographics, the questionnaire addressed three main fields of interest:

- the comparison of the experience of traditional offline courses and the new online format, reflecting the four dimensions of transactional distance between student and teacher, student and other students, student and medium, student and content
- the perception of the different measures taken to create proximity in the two courses, as described in the previous subsection of this document, that is, teaching from

application environments, close-up views of the teacher and home environment, over-the shoulder perspective in developing concepts and graphics on paper and exercises in the application environment

- the students' views on the crisis-driven shift from offline to online courses in general and their expectations and preferences for future development.

Before sending out the questionnaire to the students, it was piloted on two early-stage doctoral students who were aware of the course format but did not participate in it. As a result of the test, several questions were rephrased, split or merged to improve comprehensibility and connectedness to actual learning experiences.

Overall, 21 questionnaires were returned for the bachelor's course and 38 for the master's course. This translates into a return rate of 41% and 37%, respectively, which is slightly above the typical return rate for course evaluations at the university. It corresponds roughly with the average number of submissions to optional exercises during the courses, suggesting the conclusion that all students who worked regularly with the course material from beginning to end provided responses. Standard questionnaires were handed out in all lectures to cover basic information applicable to all of them, such as clarity of content presentation, perceived learning effect and time spent on the course to study after class. The additional questionnaire allowed for further information to be collected, and more than half of the respondents took the time to add comments in their own words in the respective fields.

Findings

Organisational space in online courses

According to the responses given in the general evaluation forms, both courses were received very well by the students. Their ratings recorded above average values for the current courses when compared to all courses in the semester. In particular, the students had the impression that they learnt more in these courses than in others. Several respondents emphasised that they preferred the course presentation to simple lecture recordings that remained closely related to traditional teaching practices. The technical flaws of the recordings were considered acceptable in view of the conditions under which they were created.

The respondents also stated that they exerted higher effort in these lectures than in other courses, despite the fact that the actual length of recorded presentations was considerably shorter than traditional lectures. When asked about the actual time they spent working on the lectures and exercises, the respondents provided figures that remained below the normal working hours. The perceived effort can thus not be quantitatively explained, but there may be qualitative aspects regarding the shift to online teaching that need to be discussed. According to the comments of the students, communication with other students and with the teacher was considered 'more demanding'. Meeting with others could

not take place spontaneously but had to be arranged. One student mentioned an 'overload of coordination tasks together with a higher risk to run into stressful situations'. The asynchronous course delivery also raised the threshold for asking questions to the teacher, which required written statements explaining the context of the question. 'Asking during the lecture is so much easier', one student wrote. Furthermore, students also noted a stronger emotional engagement in the exercises which they performed actively in their neighbourhood. This may as well have contributed to a perception of higher effort invested in the lecture.

Respondents did not view the new course format as a temporary workaround. More than 80% of the respondents favoured a continuation of digital teaching after the pandemic. Most of them, however, advocated a mix of online and offline activities in the course instead of exclusive online formats. The preferred ratio between online and offline content varied (see Figure 1). None of the respondents, however, suggested a full return to offline teaching without online components.

Students were also asked to comment in their own words on the overall shift to online teaching. The responses referred to learning space in various ways. Many appreciated the opportunity to work from home, where they could 'lean back in my comfortable chair and enjoy the presentation' and 'have all my stuff around me to take notes, grab a book to check something'. However, several students stated that they learned much better on campus than at home. They missed the 'academic atmosphere' and the physical presence of other students. Particular emphasis was put on the 'moments directly after the lecture, when you discuss under the impression of what you just heard, not much, usually, but it helps processing the information'. One respondent noted:

'It is great that you can go up front and discuss with the lecturer afterwards, if you have questions or if you want to discuss something that goes beyond the actual content of the presentation.'

One student mentioned that it was easier to focus on the subject in a lecture hall during a scheduled course. Others referred to general problems of the lockdown, independently from the courses at hand. Missing the presence of others, the workspaces and common areas on campus, one felt 'lost and alone'. The courses were appreciated for 'trying to work

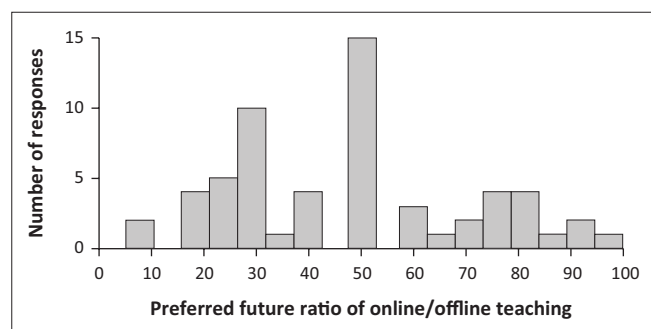


FIGURE 1: Response to question: what should the ratio of online and offline teaching be in the future? Histogram of the students' preferences.

against this experience'. Nevertheless, some emphasised that an online setting could never replace physical proximity. In particular, lecture recordings did not help them overcome the feeling of isolation. Various students mentioned the lack of videoconferencing opportunities as a detrimental factor. In the two courses discussed here, the extra effort to personalise teaching and to relate it to application environments was highly appreciated. As one student wrote, the courses made clear 'what the format is actually able to give'. It would seem to show that digital media offers many new possibilities for teaching.

Some comments pointed out technical weaknesses of the lectures and suggested improvements but without negative ratings on their learning experience. Students rather seemed to be inspired by the fact that they shared the struggles of the lecturer in dealing with technology and tried to be helpful. Even without physical presence, the courses thus established relations between their members that provided an experience of proximity in education.

Space also proved to be important from a very different perspective. Some students spend a lot of time getting to the university campus and back home. Others have a small apartment near campus, but their social life takes place elsewhere. The possibility to attend courses online was therefore very convenient for them, as they could stay close to their relevant others. Furthermore, several students explained that they had a job in industry – either to finance their studies or as an actual career. Recorded lectures made it much easier for them to manage their daily schedules.

Changing building blocks of spatial experience

In the survey, the students' response to the change of measures to overcome transactional distances was addressed in different ways. Firstly, the survey turned the attention to the building blocks of educational space in traditional lectures that had disappeared with the shift to online teaching. The students were asked to comment on this change (see Figure 2). The results showed that most respondents perceived the loss of a fixed schedule as an advantage, but

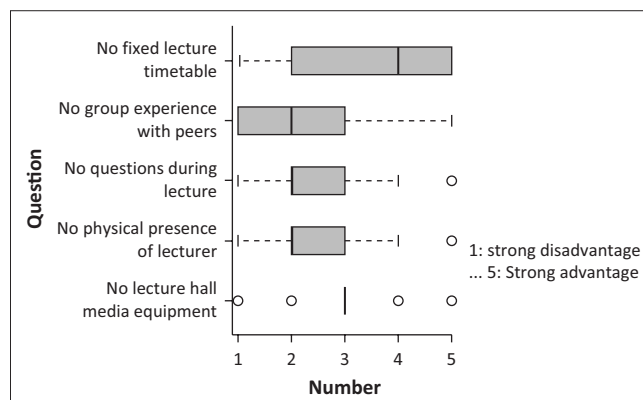


FIGURE 2: Response to question: typical characteristics of traditional lectures are lost online. Is this a disadvantage or an advantage?

with strong variance between the responses. The missing possibility to ask questions and the absence of the lecturer on site were quite clearly perceived as disadvantages. The same applied on average for the experience of attending the lecture as a group of students together, but the responses showed larger deviations. The technology in the lecture hall, on the other hand, seemed completely irrelevant for the vast majority of respondents.

Secondly, the students were asked to comment on building blocks of educational space that were added in the design of the online courses (see Figure 3). All building blocks mentioned in the previous section were very positively received. The respondents considered flexible time management, the pause function for the lecture stream and the augmentation of the picture with additional text and illustrations as clear advantages of the online format. To a lesser extent, the same applied to the presentation of the lecture from an application environment and to the close-up view of the lecturer and his or her activities at the workplace.

Comments on this question provided further details on these responses. For a large part, problems with flexible schedules corresponded with problems concerning the living situation of the students. While some have their own office space at home where they can work quietly, others depend on university facilities to learn, research and do their exercises efficiently. Many students praised the opportunities of working from home, but some mentioned particular challenges, for example, unsuitable technical equipment, distractions from roommates and the missing separation between workspace and private space. 'Of course, having family around creates distractions', one student stated, adding at the same time: 'but with my smartphone, this is almost the same now in the classroom'. Furthermore, social isolation was mentioned as a particular aspect of the pandemic in general, with the lecture being appreciated, because 'at least, this makes me do something productive'. The more the respondents felt comfortable at home, the more they also seemed to appreciate the insights into the living conditions of the lecturer. One student mentioned that 'it's fun to see him sitting in the same kind of chair that I have at

home', enjoying this form of a remotely shared spatial experience.

Furthermore, the findings showed that students related very well to the lecturer's efforts to put a new teaching format together in a short time. At the same time, however, the responses also indicated that many students were already hoping for more online teaching independently from the crisis, because of their individual personal situations. Most of them proved to be quite happy about the fact that steps towards new course formats were 'finally' taken. They strongly supported their continuation. Nevertheless, there was still a considerable number of students who were not in favour of online teaching. Some students elaborated on their reservations about online teaching. In particular, they mentioned a 'clash of spaces', insofar as they attended courses from home where friends or family were present. Some, but clearly not all, students were familiar with a variety of other forms of online interaction and compared the delivery of the courses with experiences that they had had elsewhere. Their comments were often given in the form of design suggestions regarding the technical devices (comment functions, augmented reality, sharing platforms) but also the process of the lecture (more deadlines in between) and the behaviour of the teacher (availability for questions, coaching sessions). In this vein, students also asked for the opportunity to express preferences in advance as to where the teacher should go to give the lecture when it was presented from industrial facilities and what to focus on while there.

Regarding the interaction with their peers, students did not complain about the fact that they had to rely on other platforms or social media and messaging services that were not part of the university's technical infrastructure. One student explicitly referred to the advantage of using the same digital tools during the lecture that they also used in their private lives: 'There were some students groups I was not aware of'. This way, instead of being excluded, outsiders had a chance to become involved in communities where students had already known each other for a long period of time. While one student appreciated that the university had an internal platform for students to interact, others noted that it could hardly ever reach the same level of excellence in service provision as, for example, WhatsApp or Facebook. These, however, are not designed specifically for teaching purposes, requiring 'some sort of integration' in the future.

Discussion

Changing efforts to establish organisational space

With Taylor and Spicer (2007), this article discussed organisational space as an outcome of a complex interplay between different efforts of planning, practising and imagining distance, which in the case of online teaching constitutes itself in the way how courses are designed, delivered and processed. Online and offline settings, as described above, show distinctive differences in these

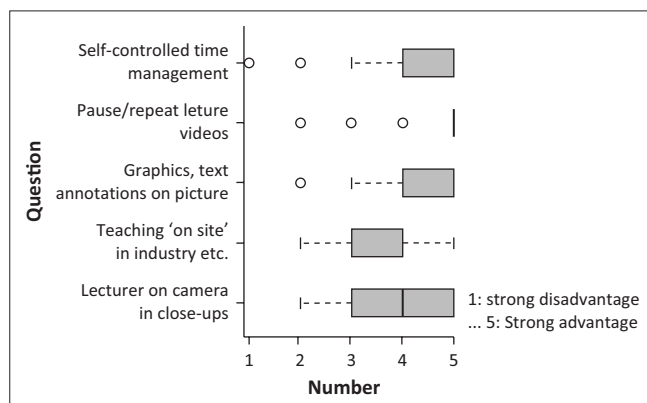


FIGURE 3: Response to question: online formats add new characteristics to teaching. Is this a disadvantage or an advantage?

aspects. Online course delivery radically changes the opportunities that teachers and students have to influence course delivery and knowledge processing. The findings presented here indicate that a sense of togetherness can still be created, but in a form that cannot directly be compared to what happens on campus. Inasmuch as students make their own choices about where, when and on which device they work with the provided material, online courses force them to take more matters of educational space into their own hands. Students are required to make more decisions about learning. They also need to become more actively engaged in creating spatial conditions that allow them to learn, reach out to others and cope with distractions that they would not experience on campus. They have to put additional effort into upholding their role as students.

Similar to other work on teaching during the COVID-19 pandemic (e.g. Aristovnik et al., 2020; Coman et al., 2020), this study shows that students have indeed spent additional effort on their courses. What remains unclear is the extent to which the students would be willing to continue doing so in the future. It is possible that the novelty of the pandemic experience had a positive effect on their motivation that wears off after a while. The positive response to the teacher's struggle to get interesting material ready in a short time is likely to be another aspect to consider here. In their comments, students expressed appreciation for the attempts 'to overcome the crisis' and 'making a great course experience possible'. Being exposed to adverse conditions created an emotional bond, which can be considered a constitutive element of organisational space during the crisis. For the future of online course delivery, this existence of this bond cannot be presupposed without further considerations.

Organisational space and transactional distance

The concepts of organisational space and transactional distance in education have both emerged from discourses that turn the focus to rich, meaningful experience and active dialogue between different actors. It therefore seems quite natural to establish a connection between them where organisational space in management education is concerned. Nevertheless, such a connection needs to be handled with care, as the two concepts have so far been addressed under different premises. Transactional distance has mainly been used to investigate the conditions under which learning as a result of education takes place in different settings. Organisational space, on the other hand, gives account of a self-referential process of sense-making and identity construction in organisations that has per se very little to do with any specific output. The study presented here therefore had to overcome a significant gap between two discourses. In doing so, it has taken a large step away from other research on management education that focuses on different factors that influence learning. The study draws attention to the constitutive efforts that are spent on making teaching possible, as they establish an environment in which teaching can take place: a setting that allows students to learn from teachers about a given subject together with others.

The aspects of distance between different learners and between learners and teachers can easily be related to extant work on the relationship between different members of an organisation. This is not the case for the other two aspects of transactional distance: the distance to interfaces and the distance to the subject matter.

In conventional settings of management education in business schools, all attending students are confronted with the very same media interfaces. They are situated in a dedicated pedagogical environment that is set apart from industry and other fields in which the knowledge they acquire is usually applied. Variations concerning transactional distance are therefore mostly experienced with respect to the relation between a student and other students or students and teachers, such as group discussions, problem-solving exercises in class and so on. Online courses, on the other hand, create a multitude of new opportunities for students to use technology according to their personal preferences, and they enable teaching directly from different application environments. Furthermore, they make it possible for teaching to proceed directly from different application environments. Transactional distance to interfaces and subject matter therefore gains much more importance than elsewhere.

The two online courses that provided the source material for this study have taken different measures to overcome transactional distance: the visual proximity to the teacher was increased, the videos followed the teacher around and students could use the learning platform as well as other social media to communicate with each other. Furthermore, lectures were taken to the street, to industrial facilities and scientific workspaces to get the students more closely engaged with the subject matter. It can be surmised that most students will be avid users of contemporary information and communication technology, having experience with video blogs and social media as sources of information. It is therefore hardly surprising that similar forms of presentation in the online courses were well regarded. As scholars have often complained about the remoteness of management education for actual industrial practice, one would have expected that teaching 'on-site' in industrial facilities would be particularly strongly appreciated. The collected data show that students appreciated this, but that they rated it less important than the other measures that were taken to reduce transactional distance. One possible explanation for these findings is the fact that on-site teaching, as well as the look over the teacher's shoulder in developing models and formulas, leaves the students in a passive role. The other measures enable them to make their own choices, watch it whenever they want, stop it, restart it or consult additional information if they require it.

Limitations

The data material for the study has been provided by two very specific courses. As a consequence, the study puts a spotlight on a very small fraction of the overall teaching

efforts at business schools during the pandemic. Further conclusions about other online courses in different environments need to be drawn with care. The study has only looked at one university within one specific national system of higher education. In other countries, the pandemic may have set dynamics in motion that could not be addressed here. The findings therefore only document some possibilities of organisational space in online courses. The extent to which these possibilities are realised elsewhere remains unknown.

Conclusion

Despite some limitations, the article at hand holds important insights for theory and practice. On a conceptual level, the article has established a connection between organisational space and transactional distance. This opens up new directions for research for scholars in the field of organisational studies, as well as management education. Transactional distance makes it possible to discuss building blocks of organisational space from a new perspective, as it addresses relations between members of organisations as well as relations to the subject matter of organisational interactions and the tools that are used in such interactions. Considering the ongoing digital transformation of business and society, it seems highly important to take all these different kinds of relations into account at the same time, which studies on organisational space easily neglect. The concept of organisational space, on the other hand, can help to gain a better understanding of the manner in which teachers and students constitute themselves as a group in a given environment and elucidate how they set the foundations for communicative processes and shared activities. Although teachers and students assume fairly different roles in education, they are all quite actively involved in the establishment of organisational space. A better understanding of these processes may enrich studies on management education in various ways.

Last but not least, the study presented here has looked at various design measures to overcome transactional distance that may prove to be quite helpful for the practice of teaching in management education and elsewhere. In a departure from prior works on this subject, this includes the usage of a camera to follow the teacher around in an excursion to industrial sites or other application settings, or to look over the teacher's shoulder in a scientific setting. Students can see things more clearly through the eyes of the teacher, thus approximating the idea of unfractured observation at the heart of the concept of transactional distance. Thus, they stop looking at people who have agency in academia or industry from an outside perspective but take the vantage point of people who have agency themselves. In the future, digital technology can also enable them to look around by themselves, explore their environment in three dimensions or ask the teacher to move in different directions while they are on site. This is likely to set completely different cognitive processes in motion and enable new formats of management education. For business schools in developing countries,

such formats may prove to be very helpful to familiarise their students with business in other parts of the world and practices that they would otherwise never be able to experience.

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Competing interests

The authors have declared that no competing interest exists.

Authors' contributions

The authors contributed to the design, implementation of the research and the analysis of the results with subsequent writing of the manuscript.

Ethical considerations

An application for full ethical approval was made to the Ethics Committee of the International Executive Development Center (IEDC) Bled School of Management Faculty of Postgraduate Studies, and ethical approval was received on 02 July 2021 (ref. no. EC21/005).

All procedures performed in this study involving human participants were executed in accordance with the ethical standards of the institutional and the national research committee and are aligned with the 1964 Helsinki Declaration, its later amendments, and/or comparable ethical standards.

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Data availability

The data that support the findings of this study are available on request from the corresponding author, H.S.K. The data are not publicly available due to restrictions (e.g. their containing information that could compromise the privacy of research participants).

Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

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