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Learning during (or despite) Covid-19: Business Students' Perceptions of Online Learning

Purpose

In March 2020, Higher Education Institutions (HEIs) were obliged to complete the semester online due to the Covid-19 pandemic. In the semesters that followed, HEIs reopened and closed again due to new waves of the pandemic. While flexibility was lauded, previous literature cited student problems such as lack of motivation and social contact. This study explores the students' perceptions of learning during four exceptional semesters.

Design/methodology/approach

Five surveys were executed via LimeSurvey during the online courses at one business school in Switzerland: April 2020, June 2020, December 2020, June 2021, and December 2021. The participation varied between 56% (April and June 2020), 52% in December 2020, 47.5% (June 2021) and 42.4% (December 2021).

Findings

The results of this longitudinal study were analyzed to examine the consequences of 'forced' online learning. The analysis reveals that though the students appreciate the usefulness of the learning experience, their motivation decreased. The historic crisis has underlined sudden technological changes in the learning programs that have had multiple (adverse) effects on students' learning.

Originality

Based on our results, we conclude that students have mixed perceptions regarding the learning environments (traditional, hybrid, or blended) moving forward. Whatever the choice, HEIS must carefully plan the most effective teaching/learning environment to ensure that students remain engaged. This study reveals the links and interconnections in this complex online setting called "learning" based on four semesters of urgent remote learning and one semester of hybrid face-to-face courses.

KEYWORDS: Business student perceptions, Higher Education, Covid-19, online courses, emergency remote learning

Research article

Introduction

In December 2019, a viral outbreak of pneumonia called 'Covid-19' was discovered in Wuhan, China, which, by March 2020, was declared a pandemic by the World Health Organization (WHO) (Marinoni and van't Land 2020). The effects of this pandemic extended to all industries, including higher education. While Higher Education Institutions (HEIs) experienced previous epidemics such as SARS, Ebola, or Zika virus that affected specific regions, they were not as prevalent nor pervasive as the Covid-19 pandemic. According to a report on the educational sector worldwide, "at almost all HEIs, COVID-19 affected teaching and learning, with two-thirds of them reporting that classroom teaching has been replaced by distance teaching and learning" (Marinoni and van't Land 2020 p. 11). Between closure(s) and opening(s) of their institutions, HEIs have shifted toward new ways of teaching and learning through various models or levels of hybrid, blended, remote, or hyflex learning.

With the closure of HEIs due to the pandemic, faculty members were faced with the challenge of preparing courses, continuing the semester, and attempting to keep things as 'normal' as possible. At the same time, students struggled to get access, use new technology, and stay connected online. However, online learning and the use of digital technologies to enhance student learning existed well before the Covid-19 pandemic (Lischer et al. 2021), and many HEIs had started to shift toward offering some digital elements in their programs or courses prior to the pandemic. Nonetheless, Covid-19 forced traditional education to go remote rapidly and definitively (Sobaih et al. 2020), a phenomenon that had not been witnessed in higher education before (Krishnamurthy 2020). For some HEIs, this resulted in the completion of the semester entirely remote; for others, students were able to return on campus for final exams. In autumn 2020, most Swiss HEIs believed that hyflex learning, i.e., limiting the number of students on campus and simultaneously teaching a portion of the students online, would be a possible solution. However, a new wave of Covid-19 forced many

HEIs in Switzerland to close again before the opening of the schools for presential courses in September 2021.

This paper investigates student perceptions of their online learning experience over the past four semesters. It addresses the students' abilities to adapt to new learning modes such as emergency remote, hyflex, or blended. In the emergency remote shift in April 2020, the delivery of the course content was left to the professor. Some chose a predominantly synchronous mode of teaching with some asynchronous elements, while others adopted an essentially asynchronous mode. Faculty members prepared online courses that resulted in students spending long hours on the computer, attending one course after another with little to no face-to-face interaction. Many HEI's struggled to offer pandemic-specific course concepts (Lischer 2021) by permitting a certain number of students to attend class. In this teaching mode, students on campus or at home were expected to be 'in class' together. However, students who could not be on campus were frustrated with the restricted access, and those on campus were frustrated when trying to work with online students. In other HEIs, blended learning courses were developed to combine face-to-face instruction with technology to create holistic learning experiences (Nortvig et al. 2018). Again, students were obliged to adapt to a new learning environment, yet there is scant evidence of their perceptions during these changes. Our paper investigates the key factors that led to student motivation (or demotivation) when following online courses in diverse modes. Unlike previous studies that have gauged student perceptions from a one-shot survey perspective, our study spans four semesters through five surveys and the changing modalities students faced. We found no study that analyzed student responses at so many intervals; thus, we attempt to offer a more holistic view of student perceptions.

While Swiss HEIs were initially faced an unprecedented challenge brought on by the pandemic (i.e., from predominantly face-to-face to emergency online teaching), this exceptional semester has offered potential opportunities for implementing substantial changes

in Swiss HEIs. According to Pereira et al. (2021), the tradition of passive courses with a unidirectional flow of knowledge from the active instructor to the passive receivers often resulted in students failing to meet the learning objectives. For this reason, the active learning process was promoted to encourage students to become active agents who gather and process the information. Thus, many HEIs have sought innovative alternatives when preparing their online courses. Another opportunity that has arisen over the past four semesters is the open and flexible mindset needed to adapt to the ever-changing educational experience. For Hagel et al. (2019), this mindset and disposition toward rapid learning that is required to thrive in an environment of constant disruption will be a competitive advantage for these students in their future careers.

Although catalyzed by the pandemic, digitalization has been lauded as a potential solution for innovative pedagogy moving forward without reaching its promising potential (Sarma and Yoquinto 2020). However, in the early days of the lockdown, HEI faculty members were obliged to introduce and effectively use digital tools they had little experience using prior to the pandemic. While there was nothing novel about using technology in HEIs, it was the rapid implementation of technology that led to uncertainty and, in some cases, added stress. According to Sarma and Yoquinto (2020), "would-be reformers have overhyped education tech for well over a century (...). Despite the onrush of technological changes that have come to education since the middle of the nineteenth century, most of us still teach and learn in classrooms that remain remarkably similar to those of 150 years ago" (p. xii). To be successful, digitalization must bear in mind the student body's needs. However, the Covid-19 pandemic exacerbated specific issues HEIs faced, including the inability to maintain the same level of engagement they had experienced in face-to-face interactions despite the availability of digital tools to assist them (Chauhan et al. 2021). This study examines business students' perceptions of the online learning experiences over four semesters.

Objectives of the study

The primary objective of the study was to examine student perceptions of online modalities to, subsequently, create more effective online learning options moving forward. This study conducted five surveys at critical moments of the past four semesters to gather the data. The following research questions were set:

1. How did HEI students perceive the online courses offered during the Covid-19 pandemic?
2. How have HEI student perceptions shifted over the past 18 months?
3. What is (are) the most significant educational challenge(s) HEI students faced during the Covid-19 pandemic?
4. What motivates and demotivates HEI students in the online learning experience after all?

Students and Online Learning

Previous literature has analyzed online, blended, hyflex, or hybrid education in many aspects without reaching a definitive agreement (Boettcher and Conrad 2016; Hodges 2020). Further, in the past two years, researchers have tried to distinguish between online learning and emergency remote teaching (Hodges 2020; Krishnamurthy 2020). In ‘authentic’ online courses, the development of digital learning and teaching methods is integrated into a context and complemented with pedagogically adequate tools for cohesive support (Krishnamurthy 2020). Creating these types of online courses takes time. According to Hodges (2020), the planning, preparation, and development time for a fully online university course is six to nine months before the course is delivered. This differs from the emergency remote courses. During the first Covid-19 lockdown, HEIs had to create authentic online learning courses immediately; consequently, they ‘quickly’ created variations of emergency remote teaching to avoid interruptions in the students’ learning journey. Nonetheless, many HEI stakeholders have mistaken emergency remote teaching for ‘real’ online teaching.

For the learning experience itself, the analysis given are better founded. Boettcher and Conrad (2016) introduced the Learning Experience Framework in which the online learning is characterized by these four main elements in their learning journey:

- Learner (being in the center of teaching and learning process)
- Faculty Mentor (directing, supporting, assessing the learner)
- Content (knowledge and skills aiding the learners' development)
- Environment (context encompassing the learner's experience).

For Jehi et al. (2021), the relationships (or lack thereof) between these elements can either lead to greater student success, or strong feelings of anxiety. Many researchers have analyzed these same relationships. Learner to resource (L-R) (Boettcher and Conrad 2016) or learner to content (L-C) refers to non-human interaction the student has with the subject matter (Alqurashi 2019; Green et al. 2018; Zizka and Probst 2021). Learner to learner (L-L) is connotated as human interaction with a two-way dialogue between learners (Alqurashi 2019; Boettcher and Conrad 2016; Zizka and Probst 2021). However, for Dräger and Müller-Eiselt (2017), this learner-to-learner or 'peer-to-peer-learning' in an online environment is not conducive for all learners. They have different zones of proximal development (ZPD) as they bring their own personalized and customized knowledge, skills, and attitudes and may be more or less prepared for this learning environment (Boettcher and Conrad 2016). Students may have different attitudes toward technology and different levels of readiness to take online courses (Wei and Chou 2020).

The relationship between faculty to learner (F-L) (Boettcher and Conrad 2016) was defined as two-way communication between the learner and instructor (Alqurashi 2019; Boettcher and Conrad 2016; Zizka and Probst 2021). Previous researchers agreed that the learning progress is encouraged when the relationship between teachers and learners is strong. Students who see their teachers as supporters of their needs are more committed, motivated, and self-confident (Hofer-Krucker et al. 2019).

In some studies, researchers introduced a fourth element, i.e., learner to technology (L-T) which has been defined as skill and comfort level the student has with non-human interaction of the technology used in an online environment (Hartmann and Hundertpfund 2015; Junco 2012). However, researchers have accepted that technology can distract students from the teaching or learning process (Hartmann and Hundertpfund 2015) by weakening social relations (Jehi et al. 2021), thus making it a potential hindrance in the learning environment.

Numerous studies have measured student satisfaction and their adaptation to these new learning modes (Lischer et al. 2021; Pereira et al. 2021; Sehan 2020) to evaluate the connections between the online and offline learning environments. Student satisfaction reflects how students perceive their learning experience and is one of the five pillars for evaluating the quality of online education (Alqurashi 2019). Student satisfaction is part of an institution's competitive advantage (Abbas 2016; Pheunpha 2019; Zizka and Probst 2021) and positively correlates with program completion and performance (Pheunpha 2019). Abbas (2016) posited that student satisfaction could predict academic success and performance and increase retention.

Previous studies found that online learner satisfaction is related to student's ability to learn from online content, interact and communicate with others, and understand their particular needs for success (Abbas 2016; Pheunpha 2019; Wei and Chou 2020). If students are satisfied, their levels of preparation rise, leading to more significant higher skills development, knowledge, and experience (Pheunpha 2019). For Wei and Chou (2020), "The more positive learners' online learning perceptions are, the more they will perceive support and benefits from their online learning process" (p. 3). Thus, more effective learning strategies lead to higher levels of academic performance and course satisfaction (Abbas 2016), which subsequently lead to greater overall satisfaction with the program and the university itself.

The students in our study did not voluntarily enroll in online courses. They were unprepared for this shift and unaware of how to structure their learning and be self-efficient. For Lim et al. (2021), online learning self-efficacy “combines technical competencies with a more general competency for learning” (p. 546). Information quality and self-efficacy are important aspects for student satisfaction (Alzahrani 2021) as studies have found that “students with higher online learning self-efficacy had greater learning satisfaction” (Lim et al. 2021 p. 551).

Challenges

The literature has cited numerous challenges for online learning, such as the lack of motivation, capacity/incapacity of autonomous learning, and lacking/misleading communication (Dräger and Müller-Eiselt 2017; Lischer et al. 2021). Other challenges include less interaction with the material and the difficulties of dealing with complex concepts without a professor to guide them (Nortvig et al. 2018). Further, the feeling of isolation and anxiety was frequently addressed (Jehi et al. 2021; Nortvig et al. 2018) as well as financial hardships from lost student jobs (Jehi et al. 2021). In the online setting, students and faculty were separated by distance and time, and many lacked familiarity with the asynchronous environment (Nortvig et al. 2018). Faculty members struggled to create meaningful interactions with their students online (Chauhan et al. 2021), while many students struggled to find the sufficient learner support they were accustomed to on traditional campuses (Nortvig et al. 2018). Further, virtual interactions were devoid of any in-person contact; thus, relationships were difficult to maintain (Gigliotti 2021).

A further challenge resided in potential distractions during online classes (Hofer-Krucker Valderrama and Kauffmann 2019; Serhan 2020). Although distraction is common in the classroom, more supervision and control in these new online modalities were not expected from the teacher (Hofer-Krucker Valderrama and Kauffmann 2019). Hence, the propensity to multitask or divide attention between important and less important tasks proved ill-suited in

online learning situations (Junco 2012). While college students commonly engage in multiple online activities simultaneously, multitasking has not been found to give positive results for the learning process (Junco 2012; Lepp et al. 2019).

Opportunities

Wei and Chou (2020) and Lim et al. (2021) found that students' computer/Internet self-efficacy and motivation for learning had direct, positive effects on online learning perceptions and course satisfaction. Students' online learning perceptions significantly and positively affected their online learning readiness. When effectively prepared, faculty members could encourage active learning through technology (Green et al. 2018). Other studies found that dialogue positively impacts students' learning experience (Nortvig et al. 2018), mainly when students engage in guided conversations with their instructors.

Many students profited from this shift to grow as independent learners through online learning self-efficacy which is the level of confidence to perform a particular task, activity, action, or challenge; this is a critical component in student learning and satisfaction (Alqurashi 2019). According to Abbas (2016), this self-regulated learning efficacy measures the extent to which students are confident implementing several self-regulated learning strategies and is a strong predictor of academic performance. Thus, online learning is particularly successful with highly intrinsically motivated learners, as they can make use of digital knowledge on their own (Hartmann and Hundertpfund 2015). **These self-regulated inherently understand how to use the technology, but they also know when to seek help.** The students' perceptions in this study could provide opportunities for faculty to prepare a myriad of courses with varying levels of self-regulated learning (for those who thrive in this context) and more traditional pedagogy (for those who prefer face-to-face interactions).

Methodology

Method

Since April 2020, five surveys have been conducted anonymously via LimeSurvey with undergraduate students and professors, informing them that the data would be used for research aims. The first survey was administered after the first week of online courses in April 2020, and the second at the end of this semester, when online exams were completed. The students had two weeks to respond. The third, fourth, and fifth surveys were organized within the regular course evaluation at this business school, approximately five weeks before the end of the semester. All students from the first to the fourth year received each survey. As this study focuses on student perceptions, only the student responses were analyzed here.

The participation rate was high, with 319 complete answers from a total of 564 students (56.6%) in April 2020, 314 complete answers from 560 in June 2020 (56.1%), 291 from 559 in December 2020 (52.1%), 249 answers from 524 students (47.5%) in June 2021, and 212 answers out of 514 (42.4%) in December 2021, resulting in a total sample of $n = 1385$. The survey results resemble other surveys conducted under similar circumstances in Switzerland (Lischer et al. 2021); thus, the external validity of the research is ensured.

The questionnaire evolved during this period. Some questions remained the same; others were added or omitted, starting with seven questions in April 2020 and finishing with 9 in December 2021. The repetition of questions assured the questions' reliability.

The added questions focused on more concrete learning experience, such as the tools used during online courses or the student's wishes for future course modus in the last survey. Open-ended questions offered the possibility to add comments, an option used by most survey participants. In the surveys of December 2020 and June 2021, each student wrote 2.4 comments on average with a length of about 30 words.

Sample

The data for these surveys were gathered at one Swiss business school with bachelor students studying business administration. In the academic year 2020/2021, 46% of the population were women and 54% men; two-thirds were studying part-time (66%), and 34% were studying full-time. Their age ranged between 19 to 35 years, with 4% below 20 years, 81% between 20 and 25 years, and 14% older than 25. For the academic year 2020/21, 25% of students were in their first year, 29% in their second year, 26% in their third year of studies, and 18% in the fourth year or more.

Some of the students were solicited several times: The survey of April and June 2020 was sent to the same cohort. For the subsequent two surveys, a third of the students left the school and were replaced by newcomers. This procedure was repeated for the December survey. No differences have been made according to the year of study, as this information is not relevant for the questions treated here.

Data analysis

All data in the quantitative analyses are indicated in percent to the answers of the chosen semester. The qualitative data was analyzed according to the concept of open coding (Glaser et al. 1967) and structured in first and second-order categories (Gioia 2020) so that the main ideas could be recognized. We integrated these key ideas in the visuals to give an overview of the diverse responses.

Results

Table 1 displays the results from the first question on all five surveys. The students were asked to rate their overall perception of the online learning modes on a 6-point scale from *very good* to *very bad*. Most responses are clustered between *good*, *quite good* and *average*. However, the extremes of *very good* and *very bad* are crucial. When examining the five surveys at these specific time periods, the results show that student perceptions for the extreme responses of *very good* and *very bad* were the lowest in June 2021. While the highest

number of *very bad* seems logical for the first survey (i.e., two weeks following the initial and brutal shift to emergency remote learning in April), the low results for *very good* in June 2021 is perplexing and worrisome. While students remained in the *good* to *average* band, they viewed the online setting in June more harshly than the previous two surveys in which the very good response rate had risen consecutively. Further, student perceptions in June 2020 were also lower for *good* and *quite good*. In December 2021, the perception changed again, with about 40% of the students having a *good* or *very good* impression. This leads to the question: What changed in the June 2021 online setting and in December 2021 that affected their perception of teaching and learning?

Insert Table 1

As seen on Table 1, the results were similar for *good* in all five surveys. While there were more *very good* than *very bad* responses for the five surveys, these numbers were not significant. The last change in December though is interesting as courses were held face-to-face with the possibility of participating passively online if a person could not assist due to sanitary restrictions.

The April 2020 results of student perceptions of their overall impression were rated as *average*, followed by *quite good* and *good* (See Table 1). This could be indicative of the emergency remote situation faced by students at HEIs worldwide. The students had no previous experience to compare this type of learning to; thus, they may have been more generous in their responses. This score rose in the June 2020 survey, where the quality of teaching and learning had improved. In a few months, faculty members had received training, learned from their mistakes, and made positive adjustments to the course content or delivery.

Nonetheless, the numbers for *good*, *quite good*, and *average* dropped slightly in the December 2020 survey compared to the June 2020 results. Again, students experienced a new learning mode, i.e., on campus for seven weeks in a hyflex mode followed by completely remote for the rest of the semester. By June 2021, the number of student responses was most

consistent, showing a similar response for *good*, *quite good*, and *average*. One explanation could be that students perceived the learning experience as inferior due to general fatigue of computer work, greater problems staying focused, or doubts about the utility of this type of education.

To examine their perception of the usefulness of the online learning environment, students were asked one closed question (yes, partially, no): Do you think the experiences of the online courses will be useful in the future? From April to June 2020, students appeared to find this new environment predominantly *useful* for their future (62% in April 2020 and 68% in June 2020). However, a sharp dip occurred by December 2020 (*useful* dropped to 48%) and continued down in June 2021 (usefulness = 42%). The opposite phenomenon appeared for the response *partially useful*, showing lower averages in April and June 2020 (31% and 30% respectively) and higher results in December 2020 (36%) and June 2021 (33%). This question was not repeated in December, as courses were held in a face-to-face format.

While students may have initially found this type of learning environment to be innovative with new technological tools and platforms, as time went on, they may have realized how strenuous full-time online learning is. Nonetheless, there were some specific elements regarding utility that the students cited in the open-ended responses. Figure 1 summarizes the themes that derived from the student comments.

Insert Figure 1

A closer look into the comments indicates that using the different tools and the experience of distant communication is seen as a significant opportunity for future professional life. Personal growth is also seen as a positive factor, especially the gain of discipline, self-organization, and autonomy, something that could be useful in their future careers. Further, students appreciated the flexibility in space and time to organize their different activities better.

Challenges faced by students

One of the challenges in online learning mentioned in the literature is time (Hodges et al. 2020; Lim et al. 2021). To gauge student perception on this challenge, they were asked to estimate the amount of time they spent in online courses compared to traditional courses. This question was not asked in December 2021.

An analysis of the data shows that the investment of time dropped after the first experiences and rose again in the 3rd online semester for a quarter of the students. The latter may be explained by students' realization of the importance of these courses to complete their program, resulting in increased learning engagement. Further, in all surveys, on average, 36% of students estimated additional time spent (i.e., up to 90 minutes more) with online courses. Those who experienced a minor growth in time investment rose after the first experience and fell when they got used to online courses. Students may have found a certain comfortability with online learning tools; hence, they spent less time than the previous online semesters. Still, the number of students positing that online courses take much more time (i.e., more than 3 hours) is much more significant (25%) than those who claim to have spent less time (i.e., 90 minutes less) (5%). To gauge why students perceived they had spent more time in online settings, they were asked to specify which activities needed more time. Figure 2 summarizes the overarching themes from their responses.

Insert Figure 2

From Figure 2, problems at different levels can be identified. Firstly, there are organizational issues regarding banal questions about course organization, i.e., finding course material. The faculty members were only asked to be transparent in their communication and not to use more than two communication channels (e-mail, Moodle, or Teams) for videoconferencing or course communication. Nonetheless, students struggled to know which teacher would use which means of communication and, even then, the organization of the information on the Moodle platform varied from course to course. As the semesters went on,

these problems were reduced by offering better information and training to the faculty and obliging them to use specific tools to communicate.

Another aspect concerning the organization and communication is the time it takes to receive answers from the faculty members. Do they react quickly to e-mail requests, use forums for the collection of questions, and offer Q/A-meetings? Sometimes, students waited a week or two for a response. The comments of the students clearly indicate that issue, especially near project deadlines. For example, one student stated: *“The comprehension of the project (which documents to hand in when) resulted in a lot of e-mail exchanges with teachers and thus more waiting for answers which led to a stagnation of the program.”*

On the other hand, many learning activities take more time, especially in preregistered courses via videos, podcasts, or PowerPoint presentations with registered comments. The watching time can be more than thrice the volume of the registered time of the data. Learning activities within the group also took more time. Being physically distant, a group’s organization is more complex, especially if the group consists of passive or absent group members. Here are two student comments: *“Some teachers do not realize that group work takes up a lot of our time in distance learning...”* and *“It (the time investment in the courses) depends on the way the lessons are organized. Some lecturers give more lessons in the form of group work, which take up a lot of time because group members do not always participate”*.

A more important aspect raised by students is the low concentration due to (too much) computer work. For example, one student commented that: *“Distance learning makes it much harder to concentrate, and it requires time to make up for those moments of inattention.”* Another student added: *“I realize with experience (after several semesters) that motivation is more difficult to find, that concentration is much more difficult to maintain, that student participation is difficult to keep, that fellow student participation is difficult to stimulate and that I have to review each time a part of the courses on Teams to understand material. I don’t*

think it's particularly teacher-related, but rather the context is demotivating." Thus, according to the students, motivation and concentration are linked.

Finally, there are technical issues to consider. For the students in this study - and in contrast to the literature - the use of technology was not a significant problem. The only problem mentioned in these surveys was a poor Internet connection that affected the communication between the professor and the students.

While technology may not have been a challenge for our groups of students, motivation was deemed essential. After four semesters of different learning modes, how had our students adjusted? To investigate motivation, students replied to two closed questions listing several possibilities and their motivating or demotivating effect: The question was: "Which of these aspects motivated you during the online courses?" respectively "Which of these aspects demotivated you during the online courses?" Note: This question was unique to the June 2021 survey; it had not appeared in the previous surveys.

According to the results, students asserted that the support of other students was crucial for motivation. While the literature posits that professors play a significant role in student satisfaction, the student responses recorded here suggest that the support of the professors played a minor role in their motivation, but the lack of support from their teachers played a significant role in their demotivation. Students suffered greatly from a lack of professor feedback in this online setting. Further, some students could not imagine anything that would motivate them, as seen in the more than 50% who responded '*nothing*' to this question. This answer of "*nothing*" demonstrates the students' frustration as time passed. After two and a half semesters of online learning, the reality of online learning took its toll on many students' morale.

If interpreted through the lens of demotivation, the results show that students were not motivated by the new challenge or the easy use of the tools. The support from the business school itself or the governing body of Swiss HEIs minimally affected their motivation. This

could depend on how motivating these bodies are for students in the ‘traditional’ educational environment.

Discussion

The students in this study are indicative of recent studies that have also focused on student perceptions in HEIs worldwide (Alzahrani and Seth 2021; Jehi et al. 2022; Lim et al. 2021; Lischer et al. 2021; Serhan 2020). Students faced the uncertainty of online learning environments and the repercussions on the HEI experience. For this reason, the primary objective of this study was to examine student perceptions of online modalities over the past four semesters to create more effective online learning options moving forward. This study addressed the students' overall perception of the different transitional periods, the shift in perceptions over time, the most significant challenge(s) students faced during these transitional periods, and the motivating (demotivating) factors of the online learning experience.

First of all, the initial positive perceptions from April to June 2020 were short-lived. With the continuation of the COVID-19 pandemic and changing sanitary conditions, HEIs' initial shift to emergency remote learning became a long-term and forced solution. The positive impressions of the different teaching modes were replaced by the hope to return to face-to-face teaching. Although online activities could enrich learning, this study showed no indication that this was the students' ideal learning format or that it could replace face-to-face learning.

Secondly, teaching and learning online presents new challenges for all HEI stakeholders (Boettcher and Conrad 2016). While online environments are complex, hybrid courses present greater challenges as they combine two groups of students in different physical spaces at the same time. As both online students and in-class students must be integrated into all the activities, a drop in motivation can be detrimental to the learning experience. As seen in the literature, active learning is crucial in online learning settings

(Green et al. 2018; Pereira et al., 2021). Further, attempting to create engaging courses in an online environment was difficult, as neither students nor professors chose this mode.

Thirdly, student perceptions of both synchronous and asynchronous online teaching varied over the four semesters. The appreciation of synchronous online teaching dropped while the experience of the students grew. Although the students felt more confident, they did not feel more engaged. Instead, students evoked their lack of concentration due to the lack of variation in online teaching methods and the dominant computer work. Nonetheless, the asynchronous teaching mode was effective for those students who are self-determined and self-efficient (Wei and Chou 2020). Some students may have even thrived in this online learning environment. They could be more flexible, study when and how they wanted, and choose their social interactions. However, from the responses in this study, it can be assumed that few students fell into this category. The growing rejection of asynchronous learning may have been due to the more time-consuming way of analyzing course material to be treated alone and the general feeling of isolation due to the restrictions on contact because of the pandemic (Lischer et al 2021).

Finally, the appreciation of online activities also fell, which may have been due to the repetition of the tasks. The use of tools for live online questionnaires may seem innovative and engaging at the beginning; but their constant repetition quickly becomes tedious. The lack of variety may have led to the lower appreciation as the semesters moved forward. Further, by June 2021, students were less enthusiastic about online exams. This could be linked to the 'exceptional' rules of June 2020, where exam failures would not count; instead, students could re-sit the exam with no penalty. This exception was only valid in this Swiss business school in June 2020; for the other online exam sessions, the results counted as usual. In addition, students became aware of the mechanisms behind online exams. Some faculty members used time pressure to mitigate potential cheating in the online context. This additional stress

reduces not only motivation but also the capacities of performance (Sarma and Yoquinto, 2020, XIX).

In looking towards the future, we can consider the results for students' preferences for future courses, which was addressed uniquely in the December 2021 questionnaire. For the students, there is no clear teaching/learning preference across the study body. With most HEIs returning onsite in the spring 2022 semester, these results are unsettling. They do not, in fact, indicate an absolute preference for face-to-face learning, which was the assumption of many HEI stakeholders. While this mixed result could present a challenge for this HEI, it could also offer an opportunity to include more hybrid elements into HEIs in the future.

Implications/ Recommendations

From the results of this study, student perceptions of online learning environments over the past four semesters have wavered. What began as a positive appreciation of the efforts being made turned into deception and, in some cases, demotivation. This begs the question: What then is needed? For Marshall (2020), the circumstances “took a toll on student learning for reasons that had nothing to do with the online medium itself” (p. 47). However, as seen in our results, neither technology nor the general course quality influenced the learning experience. Instead, interaction with other students and professors was the most relevant (Nortvig et al. 2018, Gigliotti 2021). According to Lischer et al. (2021), the faculty must offer students the best conditions to achieve academic success with minimal stress and anxiety (Zizka and Probst 2021). Thus, HEIs must ensure that students receive the support (i.e., academic, mental, financial) they need in the semesters to come. This interaction in any online environment needs to be carefully planned when moving forward by focusing on a “comprehensive view of the students” (Krishnamurthy 2020 p. 3) to consider them holistically. After all, “making information available is not the same as providing an education” (Sarma and Yoquinto 2020 p. 9).

This study includes several limitations. Firstly, while it spans four semesters and examines five survey results, the results are limited to students in one HEI business school in Switzerland. A future study could be done in other HEIs in Europe or beyond. Secondly, the student population may have differed from one survey to another. As the survey was confidential, we cannot confirm that the same students responded each time. Some students completed their studies while new students entered the HEI. Nonetheless, we believe our study depicts an accurate image of the student perceptions over time and through different educational modalities. Finally, this study focuses on student perceptions only. A future study could analyze both student and faculty members' perceptions to offer a more holistic view on this topic.

Despite the vaccines and improving COVID-19 statistics, no HEI is certain about the learning environment that students will face in the future. The lessons learned over the past four semesters need to be re-evaluated to decide on the best practices to keep, modify those that can be modified, and drop those that students do not perceive as beneficial. The role of online learning must be reconsidered, as well as their possibilities to engage students in motivating learning strategies.

Conclusion

To conclude, this study investigated student perceptions of the online learning environments they faced over the past four semesters. Through five surveys conducted with the students at a HEI business school in Switzerland, many findings came to light that are imperative for this school and other HEIs worldwide to consider. The most significant finding is that students have become complacent, even demotivated, with the online learning environment. They had not chosen this type of education and our findings suggest that students are suffering from Covid-19 fatigue. They want and need educational environments with high quality interactions. While many students are open to mixed synchronous and asynchronous (i.e., blended learning) learning environments, they need personalized feedback

and reassurance that the education they are receiving is preparing them for their future careers.

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