Affective (and Effective) Teaching and Learning in Higher Education: Getting Social Again

Laura Zizka, Gaby Probst

Abstract—The COVID-19 pandemic has affected the way Higher Education Institutions (HEIs) have given their courses. From emergency remote where all students and faculty were immediately confined to home teaching and learning, the continuing evolving sanitary situation obliged HEIs to adopt other methods of teaching and learning from blended courses that included both synchronous and asynchronous courses and activities to HyFlex models where some students were on campus while others followed the course simultaneously online. Each semester brought new challenges for HEIs and, subsequently, additional emotional reactions. This paper investigates the affective side of teaching and learning in various online modalities and its toll on students and faculty members over the past three semesters. The findings confirm that students and faculty who have more self-efficacy, flexibility, and resilience reported positive emotions and embraced the opportunities that these past semesters have offered. While HEIs have begun a new semester in an attempt to return to 'normal' face-to-face courses, this paper posits that there are lessons to be learned from these past three semesters. The opportunities that arose from the challenge of the pandemic should be considered when moving forward by focusing on a greater emphasis on the affective aspect of teaching and learning in HEIs worldwide.

Keywords—Affective teaching and learning, engagement, interaction, motivation, social presence.

I. INTRODUCTION

THE COVID-19 pandemic has affected every industry over the past two years. From grounded airplanes, lockdowns, sanitary measures, and social distancing, life has changed radically. One particularly affected industry is higher education. When Higher Education Institutions (HEIs) worldwide switched to emergency remote learning in March 2020, no one could have predicted that the situation would remain unstable for the subsequent semesters. In fact, many HEIs worldwide were obliged to incorporate blended, hybrid, or distant forms of education that they had not previously considered. With this switch to remote, HEIs were confronted with preparing courses, activities, and exams in a new environment. While many HEIs focused on the practical and administrative changes, less emphasis was placed on the social element of education. After all, students choose schools or study programs for the curriculum offered, hoping for rich experiences together with their fellow students for the next three or four years of their studies. In this paper, the focus lies on the social aspect and its subsequent effects on the Business Management students at one HEI in Switzerland.

Learning is inherently an interlinked social process [1] where social presence is considered as one of the crucial components of online learning experiences [2]. According to [3], 'presence is the most important practice for an online course' (81). It is when both faculty and students express their personal characteristics and become 'real' people to each other [3]. This social presence is important to student motivation and is cited as a key factor of student satisfaction [2]. The need for social presence became more evident in the online environment of the past 18 months. Research has shown that students are the most satisfied when there is a high level of social presence encouraged in the learning process [2]. Thus, it is crucial that faculty members establish a strong and healthy social environment that supports social presence, fosters active learning through online interaction, and creates a conducive learning environment for all [4].

This paper focuses on one commonly overlooked and under-represented area of the current situation in HEIs worldwide, that of the affective side of teaching and learning. While a propensity of literature on online learning during the COVID-19 pandemic has been published and many studies cite issues such as time, fatigue, and technology in their analysis, there is scant literature thus far that focuses uniquely on the affective aspect and how it could (and should) be addressed moving forward regardless of the changing sanitary conditions or uncertainty when trying to return to 'normal'. This paper attempts to fill that gap by evaluating affective teaching and learning through motivation, engagement, and interaction. It concludes with recommendations for introducing affective practices into HEI programs and courses.

II. METHODOLOGY

When the online courses started in April 2020, one Swiss business school regularly evaluated the outcome of the learning experience both for the teaching staff as well as for the students. The results of the last evaluation out of four are represented here, summarizing both the struggle and the challenges that the year of online courses represent. The survey was done online via Lime in May 2021, shortly before the end of the semester. Figs. 1 and 2 were created with the comments of an open question: "Your comments regarding classes this semester" that was answered by 131 students out of 249. The general participation was 47.5% (249/524) for the students, and 75.6% for the professors (68/90) with 48 answers for this question. The word clouds (Figs. 3 and 4) represent answers to the final question of this survey: "How would you describe your feelings

Laura Zizka is with the Ecole hoteliere de Lausanne//HES-SO University of Applied Sciences and Arts Western Switzerland, Switzerland (corresponding author, e-mail: laura.zizka@ehl.ch).

Gaby Probst works for School of Management Fribourg // HES-SO University of Applied Sciences and Arts Western Switzerland (e-mail: gaby.probst@hefr.ch).

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today in regard to the pandemic and online education with all its consequences?" The 179 comments of the students and 64 comments were translated into categories and classified. The more often a word is used, the bigger it gets in the tool used [5].

III. MOTIVATION

Motivation is a crucial factor in successful completion of HEI programs, but motivation tends to be situated and can vary according to context and time [6]. One factor that contributes to a learner's ability to thrive, is called self-directed learning. By definition, it is "a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" [7, p. 18]. To be competent in self-directed learning, students need to be skilled in time management, organization of information, use of tools to support the learning, and the ability to set learning goals [6]. Further, students must be able to resist distractions, monitor the learning progress and assess the success of it, be resilient when faced with negative results, and have a willingness to try new things [6].

Another element that affects motivation is self-regulated learning efficacy which measures the extent to which students are confident implementing several self-regulated learning strategies and is a strong predictor of student academic performance [8]. In the case of online learning settings, highly intrinsically motivated learners are able to make use of digital knowledge on their own. Less motivated learners are quickly overwhelmed by self-determined and informal learning. Online courses without direct contact with teachers are of little help for these students, as they depend on the extrinsic motivation possible in presence courses and made possible in the exchange with other learners [9].

While self-efficacy is often discussed in relation to students, faculty members need these skills as well. As seen in the past 18 months, faculty members have had to wear many hats simultaneously. They are teachers, facilitators, moderators, coaches, organizers of learning, experts in online teaching methods and tools, and, during the period of online courses, they also turned into IT specialists. Further faculty members needed to initiate the learning process and accompany learning by identifying the starting point for learning, formulating coherent online activities and giving opportunities for self-evaluations. In addition, they had to temper their students' online activities in the new online environment [10, p. 19].

Over the past 18 months, both student and faculty perceptions of motivation were recorded. Figs. 1 and 2 summarize their results.
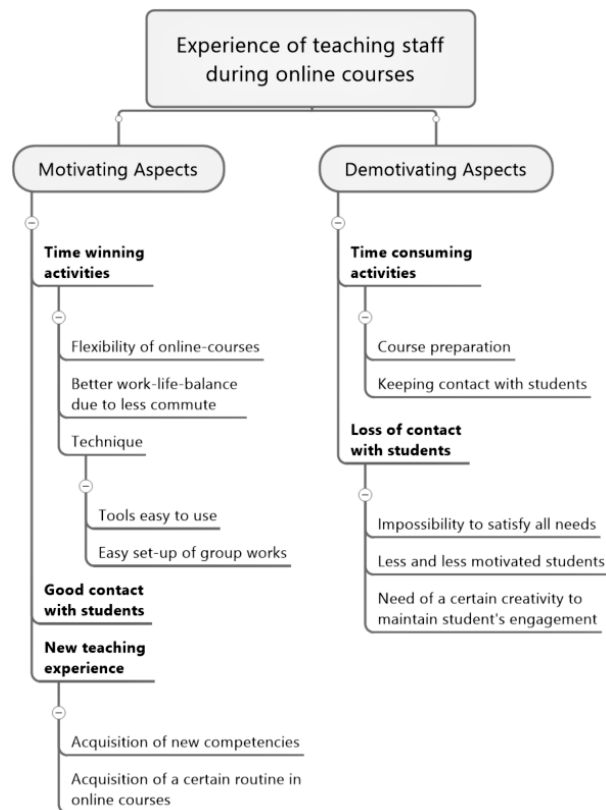

Fig. 1 Mind map: Faculty motivation after one year online courses

As seen in Fig. 1, faculty members appreciated the flexibility, feeling encouraged by any tool that helped saving time or connecting with the students. Further, they felt this flexibility contributed to their work-life balance. Many faculty members reported good or even better contact with students and reveled in the acquisition of new competencies. Nonetheless, faculty members also expressed their demotivation, even frustration, when evoking time-consuming activities such as creating new courses or trying to guard contact with the students in an online environment. Many faculty members voiced concerns that they were not meeting the students' needs or were unable to maintain student engagement.
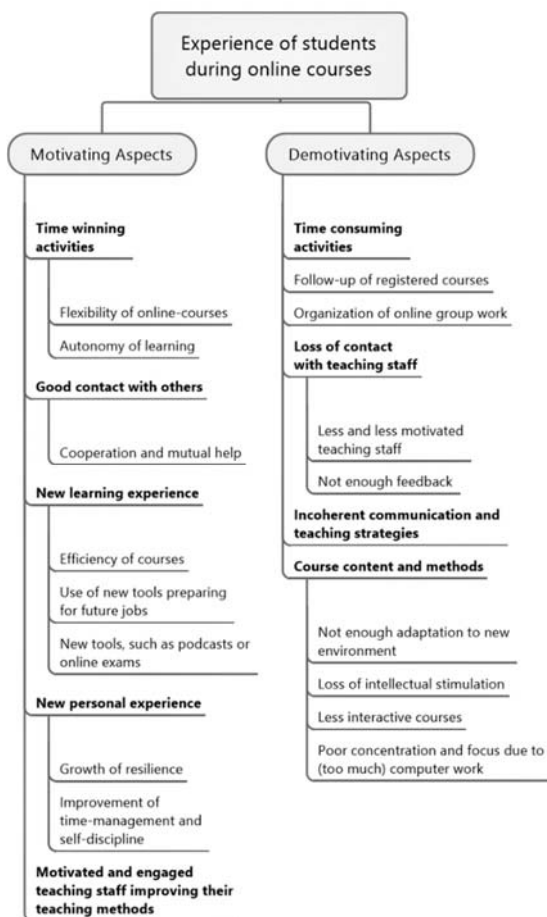
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Fig. 2 Mind map – Student motivation after one year online

Fig. 3 Word-cloud composed by faculty comments

As seen in Fig. 3, faculty emotions were balanced with twelve negative emotions to eleven positive comments. Yet, the negative emotions (which appear as the largest in the cloud because they were cited most often) dominate. Variations on the word *tired*, like *weary* and *exhausted* further demonstrated the variances in how extreme these emotions could be. A similar reflection could be made regarding the range of the use of the word *good*, i.e., *very good*, *quite good*, *fine*, or *great*. Faculty members were happy about the upcoming opportunity to see students and colleagues at the campus back again and felt relieved considering the approaching holidays. These results mirror previous studies which suggested a range of emotions that were reported in online settings.

Like the faculty members, Fig. 2 shows that some students, too, felt demotivated over the past three semesters citing the time it takes to participate in registered online courses, the loss of contact with the teaching staff, incoherent or inconsistent messages, and courses that were disappointing due to the lack of challenge or interactivity. Nonetheless, the students also reported positive aspects of learning online. Like the faculty, they liked the flexibility and greater autonomy. In addition, they found new challenges and potential of personal growth which emerged from this new learning environment.

Learning and teaching is an emotionally charged experience [6] which varies between HEI stakeholders. Emotions in a HEI environment can range from frustration to joy, from anxiety to a sense of belonging [6]. These emotions were exacerbated by the brusque shift to online learning in the spring semester 2020. Faculty and students alike were catapulted into an unknown setting which was unsettling for many and exhilarating for some. While the online environment lacks the full emotional richness of face-to-face contact, emotion is hardly absent from the online learning context [11]. Figs. 3 and 4 capture the emotions cited by both the faculty and students at the end of two almost complete online semesters.
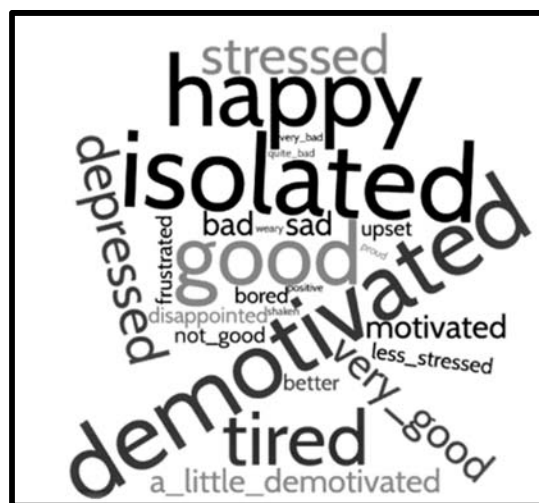

Fig. 4 Word-cloud composed of student comments

Unlike the faculty cloud of emotions, the student emotional state was much more negative (14 negative words to 7 positive words). This supports previous literature that posits that negative emotions are stronger than positive ones when it comes to learning environments [12]. Students who are dissatisfied seem to have the loudest voices and the momentum for negativity thrives. Nonetheless, Fig. 3 disputes this theory

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as demonstrated by the most cited emotions: *Isolated*, *demotivated*, *tired*, *good*, *stressed*, and *depressed.* One particular note: In this word cloud, *happy* was recorded as the phrase 'happy to see the end of online courses.' There is a mixture of positive and negative comments in the most-cited phrases. This confirms the literature which suggests that some students thrive in an online environment and are prepared for this new environment, while others struggle to find their marks [3]. Thus, not all students struggled in or complained about the online learning setting.

IV. ENGAGEMENT

Authentic engagement derives from both faculty and student efforts. For faculty members, it is based on greater faculty presence and cognitive presence to encourage and support learners to interact with the course content and each other and develop group cohesion [3]. For students, while engagement is often linked to their self-appointed responsibility for achieving the learning outcomes, it is also based on facilitation from teachers, institution influence, and their perceptions of online learning [13].

To further encourage engagement, faculty members focus on creating activities and learning moments that revolve around interaction. However, effective interaction occurs only if learning and instruction were well designed and implemented [14]. Research has shown that learning environments with social interaction and collaboration lead to positive learning outcomes [15] and collaboration. However, one significant challenge is creating sufficient learner support and linking the online activities to campus resources [16]. Students studying online benefit from interactions with their instructors [17] as social integration is a key factor in their satisfaction with the interactions [18]. In short, engagement depends on adopting a holistic approach [19]. If, however, the social contacts are strained in the online environment, they must be compensated by interactive media and the technology needed (or required) for this in order to create the necessary sense of collaboration [10].

Another means of encouraging student engagement is by introducing task-solving activities that involve a high degree of complexity [1]. These tasks could be more hands-on and practical by linking subject matter or course content to real-world experiences [1]. However, it is no more difficult to maintain student engagement and promote active learning online as in traditional face-to-face settings [13]. While designing courses in a problem-based manner is more challenging (and especially when the course is given online), it has also proven to be more effective in capturing and retaining student engagement.

V. INTERACTION

Interaction through dialogue creates a sense of community that helps in the reduction of feelings of isolation and in the coping with stressors. Both faculty and students need the support of an inclusive community. However, one of the greatest challenges of teaching online is to develop and maintain a sense of community among students who do not regularly meet in person [20]. Today, there are more possibilities of virtual collaboration "with collaborative production of knowledge and learning" [21, p. 44] that mitigate against feelings of isolation and improve self-regulated learning. "Self-directed learning (SDL) does not need to take place in isolation. Online communities provide a social and interpersonal dimension that allows learners to pursue and share similar interests, expand their learning networks, and give and receive peer feedback" [21, p. 44].

Interaction includes collaborative learning opportunities such as working together in group activities or partner work. To effectively complete group tasks, communication is critical. Faculty members must clearly communicate the task at hand as linked to the objectives and the expectations regarding the desired outcome. They must remain available for questions or clarifications and students must find ways of advancing the work within an often-displaced group. During the online experience, group work was an often-cited complication leading to frustration and tension. On one hand, some group members were less available; on the other, students had already spent all day in front of their screens attending classes and were less inclined to pass further hours online with their group to complete the task. Unlike face-to-face environments where students could sit together to work on a project, during these past three semesters, work was carried out almost exclusively online.

To address issues with interaction or group work, dialogue was important in the online experience. Research has shown that dialogue with faculty members and fellow students has positive impact on student learning experience [16]. Nonetheless, while students learn by engaging in guided didactic conversations with their instructors [17], some students find peer-to-peer support to be-less valuable [16]. They consider faculty dialogue as more consequential and, subsequently, prefer to await this feedback than trust their peers.

VI. ANALYSIS

Based on the findings which derived from the faculty and student comments, two models have been prepared.
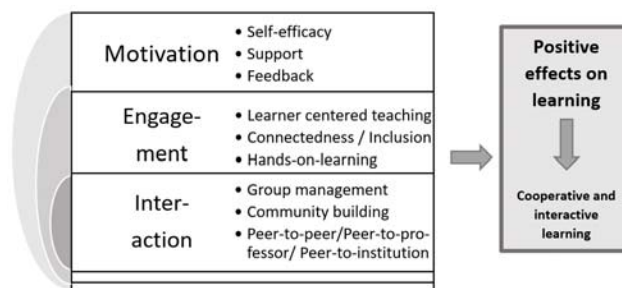
Fig. 5 Positive effects on learning

As seen in Fig. 5, by considering the core elements of motivation, engagement, and interaction, HEIs must be prepared to better address the teaching and learning environments for faculty and students. For motivation,

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encouraging self-efficacy, offering further support, and providing timely feedback are crucial. Regarding engagement, faculty members need to shift to learner-centered teaching that connects the students and themselves in an inclusive and safe environment. Hands-on learning experiences where students see the relevance and real-life application of the course content should replace earlier tasks based on memorization or abstract concepts. Finally, interaction derives from the relationships created in groups such as communities of practice. Moving forward, the relationships between peer-to-peer, peer-to-faculty, and peer-to-institution must be honed. Students and faculty need to feel they have safe havens in which they can express their successes as well as their apprehensions without repercussions. When motivation, engagement, and interaction are successfully implemented, HEIs will see positive effects on teaching and learning.

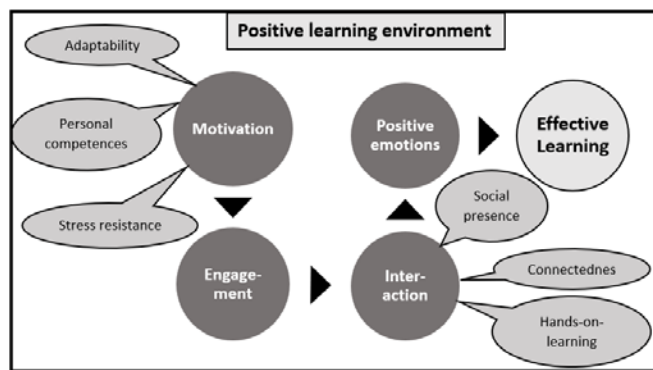A positive learning environment is the goal that every HEI tries to attain.

Fig. 6 Creating a positive learning environment

As seen on Fig. 6, a positive learning environment is based on the previous notions of motivation, engagement, interaction, and positive emotions. If considered as a path to success, motivation (including adaptability, personal competencies, and stress resilience) leads to more engagement from faculty and students which encourages greater interaction. This interaction derives from a strong social presence that is established immediately in the course. This leads to a feeling of connectivity by the participants. These social connections make group work, such as hands-on-learning projects easier, more accessible and thus more successful. When motivation, engagement, and interaction are effectively implemented, positive emotions thrive and increase. Thus, by considering the affective side of education, the teaching and learning becomes more engaging and, hence, more effective.

VII. Conclusion

This paper focused on the affective side of teaching and learning. As HEIs are attempting to return to 'normal' face-to-face teaching and learning, the sanitary situation continues to evolve. Instead of ignoring the new practices that were adopted over these past three semesters, this paper suggests that HEIs should use these experiences to create more holistic teaching and learning opportunities moving forward. Unlike studies that are situated in one country, one industry, or one company, the findings of this study are applicable to HEIs worldwide. None of the comments from the students or faculty surveyed for this study were surprising. In fact, HEIs worldwide may have seen the same responses from their students and faculty. The COVID-19 pandemic obliged all HEIs to shift online and face the same challenges. The difference lies in their responses to student and faculty comments. Practical suggestions on what resources and tools need to be added can be acted upon quite easily. Some of the problems, such as home Internet connections, timing, and isolation can diminish (even disappear) once faculty and students return to campus. Nonetheless, this paper posits that HEIs should strive to move beyond a return to 'normal' by reflecting on what was achieved over these past three semesters. HEIs should spend time and resources on developing the affective aspect of their program and courses since motivation (or positive feelings) are contagious.

Based on the experience of the past 18 months, the following recommendations can be made in order to respect the individual emotional responses to change:

- Ensuring coherent teaching environment for both students and faculty
- Improving support structures for students and the faculty
- Gathering student and faculty feedback and making the necessary adjustments
- Establishing a positive feedback culture within institutions and courses
- Promoting communities of practice for student and faculty collaboration
- Improving inclusion of all members of the institution

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