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University students' well-being during emergency remote teaching: reflections from the viewpoint of the Self-determination theory

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Abstract: *The aim of this paper is to provide an overview of research findings on different qualities of emergency remote teaching (ERT) and interpret their implications for student well-being from the perspective of the Self-determination theory (SDT). The analysis of research findings suggests that students' well-being and success in online learning were compromised, and that the teaching/learning practice during ERT could not provide adequate support to students' basic needs for autonomy, competence, and relatedness. The observation that student well-being was not a priority while implementing ERT was not surprising for several reasons: the primary objective of ERT was to ensure the continuation of education; the switch from regular classroom settings to an online environment was rapid and hasty; teachers were faced with numerous challenges while rapidly adapting to new conditions and ways of working, communication and exchange, new tools and resources, and they lacked competencies and experience in teaching with digital technologies.*

Keywords: *student well-being; Self-determination theory; emergency remote teaching*

1. INTRODUCTION

It's been more than two years since the COVID-19 breakout, and we still talk about the consequences of the pandemic and the shift towards living, working, teaching and learning in a digital environment. After many published papers on COVID-19 experiences and responses, a new kind of research that reaches beyond the pandemic has emerged. In this new kind of research, the pandemic experience is transformed from an object of research to an intrinsic part of the new theories, approaches, and research methodologies [1], along with the lessons learned, recommendations for accepting the "new normal" and the transformation of the "grey areas" in education.

We have all witnessed or experienced the transformation of education due to the rapid spread of the pandemic. This was well documented by UNESCO [2] who thoroughly monitored and reported on the closure of educational institutions. Instead of just closing educational institutions, the pandemic triggered a global experimentation with remote teaching [3]. In order to ensure the continuation of teaching and learning [4-6], the higher education institutions were transformed by switching their teaching/learning practice from the traditional classroom setting to the online environment [7, 8].

This transformation of higher education was rapid and hasty and resulted in what is now often referred to as emergency online education [8] or emergency remote teaching [9]. Emergency remote teaching (ERT) represents a temporary shift in the delivery of teaching to an alternative mode of delivery, caused by crisis circumstances (like pandemics, wars, or natural disasters) [9]. It usually involves the use of fully remote teaching solutions for education which was primarily intended to be delivered face-to-face or as blended in regular circumstances. The main characteristic of ERT is that it is planned and executed rapidly, including urgent redesigns of courses originally developed for the traditional classroom setting. The main objective of ERT was to ensure the continuation of education by providing temporary and remote access to teaching and teaching support, and not to recreate a solid education system.

This "new normal" led teachers and students in an "unfamiliar terrain" [10], presenting them with a challenge to adapt to new conditions and ways of working, communication and exchange, and new tools and resources. Teachers had to be adaptable, flexible and creative enough to improvise and innovate on the spot and rapidly switch their regular teaching practice to an online environment. They were faced with numerous challenges from redesigning courses originally conceived for

teaching in traditional classrooms, to adapting teaching and learning materials and activities, and providing students with support for learning in a digital environment.

All these challenges, combined with the lack of competencies and experience in teaching with digital technologies led to the transmissive nature of the teaching practice during the pandemic, so that motivation and students' engagement, as well as their interaction with the teacher and other students, did not reach the desired quality [11]. This opened the question if, in rushing to implement ERT, the student well-being was disregarded.

In this paper, we focus on university students' well-being during ERT. We aim to provide an overview of research findings on different qualities of ERT and interpret their implications for student well-being from the perspective of the *Self-determination theory* (SDT) as a macro-theory of human motivation which deals with the factors that either facilitate or hinder the assimilative and growth-oriented processes in people [12]. According to SDT, fulfilment of the basic psychological needs – needs for competence, autonomy, and relatedness – represents the core condition for personal growth, social development, and psychological well-being [13].

2. WHAT IS STUDENT WELL-BEING AND WHY IS IT IMPORTANT?

Well-being is one of those concepts that is understood in different ways and that has no single definition as there is no consensus about it among scholars from various fields that study well-being, such as: health, psychology, education, social care, economy etc. The most cited first definition in many academic papers is the one from the Oxford English Dictionary, where well-being is defined as a state of being comfortable, healthy, or happy. Even though this definition is often qualified as simplistic, most of the definitions of well-being indeed refer to: the presence of positive emotions (e.g., contentment, happiness), absence of negative emotions and psychological states (such as depression, anxiety), satisfaction with life, fulfilment, positive functioning [14-17], self-esteem, self-determination, resilience, quality of life, good mood, good mental health, and healthy lifestyle [14, 18-20]. In general, common modern-day definitions of well-being focus on a state of balance that can be affected by life events and challenges. Therefore, well-being is "when individuals have the psychological, social and physical resources they need to meet a particular psychological, social and/or physical challenge" [21]. With that in mind, we could state that student well-being encompasses positive emotions and individual's inner capacity to cope with the challenges of day-to-day academic life [22].

Studies show that students with low levels of well-being are more likely to suffer from stress, depression, and anxiety [23, 24]. On the other hand, several meta-analyses show that students who have a greater sense of well-being tend to have higher motivation, increased self-confidence, higher levels of engagement and academic achievement [23, 25-27]. In that light, we could expect that universities that show dedication to student well-being will be able to prevent drop-out and have higher graduation rates [28, 29].

Studies on university students' well-being during the Covid-19 pandemic in many countries, such as Australia, Brazil, China, Germany, Malaysia, Mexico, Romania, Spain, Switzerland etc., found that many students showed signs of depression and anxiety [18, 30-45]. This was likely caused not only by concerns related to health and economic issues, but also by reduced social interactions, disruptions in teaching/learning process, and potential effects that those disruptions and pandemic in general will have on their educational outcomes and opportunities in the labour market [31, 34, 37, 38, 41, 42]. For that matter, it could be valuable to reflect on student well-wellbeing during the pandemic in the light of the quality of ERT.

3. THE QUALITY OF THE EMERGENCY REMOTE TEACHING AND STUDENT WELL-BEING

Studies show that both teachers and students were not fully satisfied with the quality of ERT [11, 46-49]. To our knowledge, there are no specific studies that link university students' sense of well-being during the pandemic to different qualities of ERT. Therefore, we will discuss findings from different studies with university teachers and students on the quality of ERT from the perspective of SDT and its implications for student motivation and well-being.

SDT anticipates three main types of motivation: amotivation, extrinsic motivation, and intrinsic motivation. When intrinsically motivated, people engage in activities that interest them, and they do so freely and driven by curiosity, pleasure or enjoyment of the task [50, 51]. At the other extreme, amotivation (non-regulation; a lack of motivation) results in action without real intent or absence of any action. In the middle is extrinsic motivation. Extrinsically motivated behaviours are instrumental in nature – people perform activities for the sake of rewards or to avoid punishment, to fulfil an obligation, etc. In SDT, it is argued that extrinsic motivation can be self-determined, i.e., there are different types of extrinsically motivated behaviours or regulatory styles, which differ in the extent to which they represent self-determined versus controlled responding – external, introjected, identified, and integrated form of regulation. The transition from external to

integrated regulation requires that values and goals become internalized (personally important) and integrated, i.e., fully assimilated into one's sense of self [50, 51]. These processes are facilitated by the fulfilment of three basic psychosocial needs: *competence*, *autonomy,* and *relatedness*. Therefore, in the next chapters we will discuss how were these students' needs supported during ERT.

3.1. Competence

A need for competence relates to the feeling of mastery, a sense that one can succeed and grow. For example, students' need for competence is satisfied when they feel able to meet the requirements and challenges of their studies. This need is best satisfied within well-structured environments that afford optimal challenges, positive feedback, and opportunities for growth [12].

In various studies on the qualities of ERT, students singled out the poor learning atmosphere as one of the main challenges [52], and reported that teaching methods were monotonous and not enough engaging [47, 48, 53, 54], that learning resources were poorly designed and unattractive [46-49], and that they were overloaded with learning contents and assignments [30, 54, 55]. Students also reported problems related to delayed feedback from teachers [52]. University teachers reported that teaching/learning activities during ERT were mostly of a transmissive nature, such as lectures via video conference calls, and that they were not satisfied with the quality of students' motivation and engagement, student-teacher interactions and interactions between students [11, 56]. Namely, as ERT came as a sudden change, many teachers lacked both competencies and time to plan and organize online teaching/learning in a more interactive manner. Therefore, from the perspective of SDT, we could argue that the described pedagogical practice during ERT could not support students' need to feel competent, and as a result, led to a drop in students' learning motivation, their lower participation during classes and, in turn, neither students nor their teachers were satisfied with the quality of online teaching/learning provided during the pandemic.

In addition, studies show that many students had technical issues related to internet speed and the use of different technologies and online services [30, 46, 47, 49, 52, 54, 55,], which amplified their insecurity in shifting towards learning in an online mode. We could argue that even when students have sound digital competencies, technical difficulties could diminish their sense of competence, especially if students do not have prior experience in online learning [56].

3.2. Autonomy

Autonomy refers to a sense of initiative and ownership in one's actions and it is supported by experiences of interest and value; and undermined by external control by rewards or punishments [12]. Teachers who support students' autonomy attempt to understand and be responsive to students' perspectives, provide a meaningful rationale for the tasks that need to be done, provide students with meaningful choices and tasks that are in line with their interests, and provide opportunities for students to take ownership of their work [51].

Results of the study that measured autonomy supportive teacher behaviour on a scale with items such as "I provide the students with choices and options", show that the teachers' support was the lowest for the basic need for autonomy [58]. This could mean that, during ERT, students' perspectives and interests were neglected, and that they were not enough provided with meaningful choices.

It is well-known that online learning favours self-regulated learners who are able to plan, organize, and monitor their learning on their own [59-61]. Accordingly, success in online learning settings has been associated with students' self-regulated learning (SRL) skills in many studies [60, 62]. Some studies focused on online learning during ERT also found that students with higher self-efficacy in self-regulation had lower study related stress during the pandemic [63] and that students with better self-organization skills were found to have better learning gains [64]. Another study found that relatedness was positively associated with SRL, which emphasizes the importance of supporting students' SRL via developing social connections if we want to boost learning gains and student satisfaction in online learning [65]. SRL was also found to be positively related to students' tranquillity, hope, gratitude, and joy, while it was negatively related to loneliness and disinterest [35]. One study found that digital competence preserved university students' psychological well-being by helping them to manage cognitive load and academic burnout, as well as increasing their engagement during ERT [61].

All these findings suggest that SRL was indeed an important asset during ERT. However, if we keep in mind that many students were not used to learning in an online environment and lacked digital and/or SRL skills needed to manage their way through ERT [66], we could argue that for many students needs for autonomy and competence were not supported enough during the pandemic and, thus, their well-being and success in online learning were challenged. Students were often left to their already existing capacities to cope with the challenges of day-to-day academic life.

3.3. Relatedness

Relatedness in the SDT refers to a sense of belonging and connection. It is facilitated by the

conveyance of respect and caring. People tend to internalize and accept as their own the values and practices of those to whom they (want to) feel connected, and from contexts in which they experience a sense of belonging [12].

Low levels of student-teacher and student-student interactions were the most mentioned shortcomings of ERT by both students [48, 53, 57] and university teachers [11, 57, 67]. In addition, studies show that, during ERT, students were spending less time studying together compared to the time before the pandemic [34]. Some studies focused on examining the perceptions of belonging in teachers and students during ERT. It was found that the sense of belonging is reduced in both teachers and students, who felt that being physically present on campus mattered in terms of belonging [67].

There are also studies that measured the teachers' supportive behaviour towards the basic needs for competence, relatedness, and autonomy, both from the teachers' and students' perspectives [58]. The results of this study show that teachers were relatively high in their need supportive behaviour, especially concerning the support of relatedness. The relatedness support was measured by self-reports on a scale with items such as "I encourage the students to work together". Students also reported that they felt supported by their teachers regarding their autonomy, competence, and relatedness during ERT. On the other hand, the supportive behaviour of teachers does not mean that students' need for relatedness was met, which was confirmed by some reports that much more interaction between students was expected than occurred [68].

In the light of SDT, we could interpret that students' need for relatedness was at risk the most during ERT, given that peer interactions and learning were not encouraged enough. This was supported by the study that examined if ERT could meet the basic students' learning needs, and found that online learning could meet the basic learning needs of autonomy and competence, but not relatedness [69] Therefore, it is understandable that many students decided to keep their cameras off and just consume the contents served by their teachers. We could argue that this had profound implications on how students perceived themselves as learners, but also on their group identity and cohesion. In such context, we could not expect that students would have positive emotions during learning, which is a core part of their well-being.

4. DISCUSSION AND RECOMMENDATIONS

Even though some studies acknowledged the teachers' supportive behaviour towards the basic needs for competence, relatedness, and autonomy, the analysis of research findings on different qualities of ERT shows that students' well-being and success in online learning were challenged. Research results suggest that the teaching/learning practice during ERT could not provide adequate support to students' basic needs for autonomy, competence, and relatedness, leaving students to their already existing capacities to cope with the challenges of online learning. This resulted in general dissatisfaction with the quality of online teaching/learning during the pandemic, a decrease in students' learning motivation, lower participation during classes and lower peer interactions and learning, which were not encouraged enough.

Therefore, we can provide a positive answer to the question opened in the introduction, if the student well-being was disregarded in rushing to implement ERT. However, this outcome was well expected, for several reasons. First, the primary objective of ERT was to ensure the continuation of education, and the switch from regular classroom settings to an online environment was rapid and hasty. Second, teachers were faced with numerous challenges while rapidly adapting to new conditions and ways of working, communication and exchange, and new tools and resources, all combined with the lack of competencies and experience in teaching with digital technologies. Taking all this into account, it is not surprising that student well-being was not a priority while implementing ERT.

The presented research findings can well be used for gathering recommendations for supporting student well-being in online teaching/learning. Improving the online teaching/learning experience is in line with the efforts to increase student motivation for learning, through the effective use of digital tools (*competence*), through *autonomy* in learning, and through active and interactive relationships between and among students and teachers (*relatedness*). In this process, the support that student receives from the teachers and the institution as a whole becomes important.

Interactions in the teaching/learning process are important. They help students learn, influence students' satisfaction and help students build their confidence in online academic life. That is why interactions should be the core for planning, designing and delivering teaching/learning in an online environment. Interactions in online teaching/learning should be direct, among students, and between students and teachers, with facial expressions and gestures. It is also important to create a sense of community and an online environment that emphasises the students' own contribution to the learning process.

Digital competence is essential for students to be successful in online learning, it empowers them to manage cognitive load, as well as their way through online learning experience. Participation in a digital learning environment which is well-structured with optimal challenges, positive feedback, and opportunities for growth leads to the improvement

of students' digital competence, and has benefits that go beyond subject matter learning objectives, and are critical for both personal and professional advancement following the demands of living and working in a digital world.

Along with that, different ways of expression and learning activities should be implemented in online teaching/learning, and as for learning materials and activities, they should be of proper difficulty levels that are congruent with students' cognitive levels, but also in line with students' interests. Teachers should be responsive to students' perspectives, and provide them with meaningful choices and opportunities for taking ownership and responsibility for their work. Teachers should also support SRL, by setting intermediate goals and giving timely feedback.

5. CONCLUSION

In our review of studies on different qualities of ERT, we found that students' well-being was not supported enough, given that there is no solid evidence that students' needs for autonomy, competence, and relatedness were fully met during online teaching/learning at universities. We could argue that, as continuation of education was the top priority in many countries, as well as keeping teachers and students healthy and safe, addressing psychosocial aspects of student well-being during ERT has been left out of focus. However, over time, it has become evident that both students and their teachers are not satisfied with the quality of online teaching/learning during the pandemic, and that there was a decrease in students' motivation and engagement. That is when questions related to student well-being started to rise.

Even though it might sound as a belated wisdom, the experience during ERT can provide many valuable lessons on how to support student well-being and successful online learning experience, given that many universities nowadays are still fully or partially organizing courses in an online mode. We should consider planning and delivering teaching/learning process that engages students and encourages interaction, students' agency, responsibility, flexibility, and choice. In addition, for a better quality of online learning experience, we would highlight the importance of using students' reactions and feedback for iteratively refining online teaching/learning practice.

Even though SDT was of great heuristic value for our review, further research on students' sense of well-being during ERT and on their perspective on teaching practices that support or hinder the fulfilment of their needs for autonomy, competence and relatedness are needed.

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