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EXPLORING THE ENCGT BUSINESS SCHOOL STUDENTS' PERCEPTIONS TOWARD E-LEARNING DURING THE COVID-19 PANDEMIC: A QUANTITATIVE DESCRIPTIVE STUDY

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ABSTRACT

Background*:* The Coronavirus pandemic has disrupted the functioning of a variety of institutions, especially Higher Education ones (HEIs). In the scenario of Covid-19 crisis, the contribution of Information Technology (IT) has gained fame due to the shutdown of schools and universities. During the lockdown, E-learning has become the only way to ensure learning continuity.
Aim*:* After a few months of fulltime online learning, this research was conducted in order to explore the ENCGT Business School students' perceptions of E-learning. The study aimed also to identifying the actions that need to be taken to improve the students' E-learning experience.
Method*:* This research used a quantitative method based on a survey. An online questionnaire was sent to 1200 students, 976 of them agreed to take part in the study. The collected data were then analyzed using a statistical software. Both quantitative and qualitative analysis were applied.
Findings*:* The findings highlight the common challenges faced by students in online learning during the lockdown. Technological, social, communicational, personal and mental health issues have been identified.
Implications*:* The study is very useful in the sense that it allows HEIs to understand students' expectations regarding E-learning and meet them adequately. Likewise, the results are valuable for teachers who should seriously reflect on their teaching styles and methods so they can flexibly adapt to the increasingly digitized world. Finally, the study enables students to have their voice heard.
Keywords*:* E-learning; Challenges; Covid-19; Higher Education Institutions.

1. INTRODUCTION

The Covid-19 pandemic has disrupted regular activities in a variety of institutions, especially in schools and universities. Many countries have introduced new regulations in order to minimize the spread of the virus and protect human lives. Therefore, HEIs across the world have been forced to suspend all forms of traditional classroom activities and switch to fulltime online learning in order to ensure learning and teaching continuity and help students adapting to the new normal (Nassoura, 2020). In Morocco, the state of epidemic emergency was declared by the government in March

2020. The Ministry of National Education, Vocational Training, Higher Education, and Scientific Research announced the closure of all schools and HEIs, pushing thus, millions of students into distance learning. Efforts have been multiplied to make this form of learning accessible to all. Showing signs of responsiveness, HEIs struggled to offer their students the opportunity to access courses online through institutional portals. Besides, interactive E-learning platforms have been made available enabling students to efficiently interact with lecturers and peers. As for students with no access to the internet (often in rural or underserved regions), the Ministry went a step further and started filming lessons and broadcasting them on national TV channels. Despite this heightened reactivity, the sudden shift to the to the full online delivery method highlighted the delicateness of the Moroccan education system when facing the challenge of digitalization.

It is worth mentioning that Information and Communication Technology (ICT) is believed to be one of the key components to improving the quality of life in Morocco. Numerous initiatives aiming at implementing and generalizing its use in different sectors have been launched by the successive governments (e.g., "*Maroc numérique 2013*"; "*Maroc digital 2020*"). Nevertheless, the integration of ICT into education remains very limited, even absent (Mastafi, 2014). Indeed, Moroccan HEIs have never recognized E-learning as a formal method of education before the pandemic. Therefore, most students and lecturers have only discovered online learning' types and tools during the lockdown. This situation is not specific to Morocco, it also applies to many countries across the world. This might explain the recent surge in the literature related to E-learning in times of crisis. Indeed, many researchers across the world have conducted studies on this topic. These works include, among others, the quality of the education being delivered ((Sahu, 2020); (Sankar et al., 2020)), the challenges faced by students ((Aboagye et al., 2020); (Kaisara & Bwalya, 2020); (Maatuk et al., 2021); (Yang et al., 2021); (Mohd Zulkefli, 2020); (Al-Balas et al., 2020)), the challenges faced by lecturers ((Maatuk et al., 2021), (Rannastu-Avalos & Siiman, 2020); (Farooq et al., 2020); (Almazova et al., 2020)), the challenges faced by institutions ((Almaiah et al., 2020); (Appolloni et al., 2021)), E-learning adoption ((Siron et al., 2020); (Ho et al., 2020); (Bhardwaj et al., 2020); (Zulherman et al., 2021), and E-learning acceptance ((Prasetyo et al., 2021); (Fauzi et al., 2021)). Likewise, Moroccan researchers have shown a great interest in the topic. Many studies have been conducted to explore the HE students' perceptions, attitudes, satisfaction, and challenges with a focus on E-learning in times of Covid-19 (e.g. (Meriem & Youssef, 2020); (Elmendili & Saaidi, 2020); (Elfirdoussi et al., 2020); Rahali 2020; (Ouajdouni et al., 2021); (Asserraji, 2021); (Elkhayma, 2021); (Bahloul et al., 2020)).

2. RESEARCH GAP

Studies which aim to identify students' perception and attitudes towards E-learning in the context of Covid-19 pandemic are few (Khan and al 2021). Furthermore, our search in the literature has shown that endeavors that aim to address this topic from the Business School (BS) students' perspective are even scarcer. In Morocco, for instance, most of the studies on the topic have been undertaken at the university level ((Meriem & Youssef, 2020); (Elmendili & Saaidi, 2020); (Hjiej et al., 2022); (Elfirdoussi et al., 2020); (Ouajdouni et al., 2021); (Asserraji, 2021)). Only few ones have focused on individual institutions ((Jamai, 2021); (Elkhayma, 2021); (Bahloul et al., 2020). BSs remain understudied. Given their specificities, BSs provide a fertile ground for research. Although they are highly influenced by digitalization (Chauhan et al., 2021), most them have faced this challenge and been left behind (Gupta et al., 2020). According to a survey by (Kalika & Leighton, 2021) on the Impact of the COVID-19 Crisis on Business Schools, a mass introduction of digital and remote teaching after the pandemic crisis is seen as highly likely. Besides, investments in new learning platforms and mobile-first technologies and the realignment of staff skills and experience are urgently needed to meet the students' expectations. Against such a backdrop and in order to fill the gap in the literature, this study aims to explore the BS students' perception of E-learning during the lockdown with a focus on students from ENCGT ("*Ecole Nationale de Commerce et de Gestion de Tanger*"). The remainder of this paper is organized as follows: Section 2 relates the main previous works on E-learning. Section 3 describes the methodology. Findings and discussion are presented in Section 4. Finally, Section 5 provides some recommendations.

3. LITERATURE REVIEW

○ DEFINITION AND MODES OF E-LEARNING

Globally, ICT is becoming increasingly accessible and influential (Phutela & Dwivedi, 2020). Its rapid growth brought a radical and novel change to learning, namely E-learning (electronic learning). This form of education has increased rapidly due to the drastic reduction in the cost of technology implementation and due to the multiple opportunities it offers for improving the teaching-learning experience (Maatuk et al., 2021). In higher education sector, E-learning has become pivotal in the recent years and correlated with novel approaches to facilitate education. Most HEIs have shifted their attention to this convenient, economical, and technology-based approach to delivering education (Patel et al., 2018). Therefore, E-learning has been extensively used in institutions globally (Noesgaard & Ørngreen, 2015).

Many terms such as 'Computer-based learning', 'Online learning', 'Web-based learning', 'Digital learning', 'Interactive learning', and 'Internet-based learning' are sometimes used to refer to this form of delivering knowledge through ICT. Nevertheless, "E-learning" remains the dominant term that encompasses all the previous ones (Maatuk et al., 2021). E-learning is defined as "*the use of ICT to deliver information for education where instructors and learners are separated by distance, time, or both in order to enhance the learner's learning experience and performance*" (Tarhini et al., 2014) or as "*instructions delivered using multimedia technology, the Internet or intranet"* (Al-Fraihat et al., 2020). In an E-learning environment, both asynchronous and synchronous modes can be used. Asynchronous E-learning refers to the E-learning that is available at any time of the day, potentially from any location (Rosenberg, 2001). This type implies many applications ranging from simple ones (PowerPoint slides posted on a website) to more sophisticated ones that require more learner involvement. In synchronous mode, the instructor interacts with students in real time using audio or video teleconferencing tools that require all students to be in front of their devices at the same time (Oztok et al., 2013). The applications of this mode are numerous, ranging from real time chat sessions (where students log on at the same time to discuss training topics) to synchronous sessions (where students from diverse locations log into the platform at a set time, and where instructor facilitates a discussion while sharing his screen with the learners). A mix of delivery options can be used in the frame of blended learning where various combinations of asynchronous, synchronous, and classroom learning are considered.

○ ADVANTAGES AND CHALLENGES OF E-LEARNING

From the HEIs perspective, E-learning is believed to be a way to achieve students' satisfaction (Al-Samarraie et al., 2018), expand education (Tawafak et al., 2018), enhance its quality (Njenga & Fourie, 2010), reduce its economic costs, increase the academic offer, decrease absenteeism and dropout rates among university students and improve HEIs competitiveness. From the teachers' point of view, E-learning is highly beneficial in the sense that it helps develop the students' technological skills (Maatuk et al., 2021) and offers a higher interaction and collaboration levels comparing to traditional environment (Tao et al., 2006). From the students' perspective, E-learning has a positive effect on learning (Somayeh et al., 2016). First of all, it is flexible when issues of time and place are taken into consideration (Arkorful & Abaidoo, 2015). Besides, it is cost effective in the sense that there is no need for the students to travel to attend classes (Arkorful & Abaidoo, 2015). Furthermore, it has the advantage of making the subjects more interesting thanks to the use of multimedia and to the interactivity it allows (Sarker et al., 2019). In addition, by allowing each and every student to study at his or her own pace and speed, it increases satisfaction and decreases stress (Arkorful & Abaidoo, 2015). Finally, E-learning enables students to access and share materials easily, enhancing thus collaboration among learners (Zounek & Sudický, 2012).

Despite becoming popular among students in all educational institutions in the period of lockdown (Sathishkumar, 2020), E-learning brought many challenges to the surface. Studies focusing on students' perspective concluded that issues raised by studying online are numerous. The biggest challenge probably lies in ensuring that certain preconditions are met for E-learning, such as access to ICT tools. Students might need to buy or rent new computer equipment in order to learn. Besides, limited Internet connectivity and low bandwidth are also typical technological obstacles felt by E-

learning students, especially in developing countries ((Farooq et al., 2020) ; (Hassan, 2020)). Another aspect that needs to be looked at is the technical skills and ICT knowledge of the people that will interact with the E-learning system (Hassan, 2020). This problem is intensified for HEI's students who might find themselves using various platforms for different courses (Al-Balas et al., 2020). Other serious challenges are self-regulation and lack of engagement (Farooq et al., 2020). A study by (Abouchedid & Eid, 2004) stated that E-learning students have a higher dropout rate than their conventional counterparts. Another study by (Kim & Ekachai, 2020) showed that engagement is lower among those students who rely only on online learning tools for their educational needs. Furthermore, social issues are also important. Indeed, the loss of social contact and the lack of communication with teachers and peers may lead to student resistance towards learning through distance education (Åkerlind & Trevitt, 1999). (Schott et al., 2003) expressed that the lack of physical interactions makes students feel isolated and apprehensive. E-learning is also criticized for not having facilities like traditional campuses: volunteer opportunities, access to physical library, career and development counselling (Mccracken, 2004). Another issue is related to course design. (Zhou et al., 2020) point out that some teachers simply copied existing materials onto an online platform, providing little guidance or student-teacher interaction. Finally, the lack of security and privacy matters are great challenges for students (Almaiah et al., 2020), especially those living in Muslim-majority countries with conservative cultures (El-Bassiouny & El-Bassiouny, 2020). All the above-mentioned challenges might be compounded for BS students. Undeniably, a study conducted by (Brammer & Clark, 2020) showed that students in the later stages of their courses are highly concerned about understanding the impacts of Covid-19 on their progress and graduation. Besides, students undertaking part time work in other industry sectors have experienced hardships due to the broader economic impacts of Covid-19. Also, because BSs tend to be highly engaged externally, their students encountered significant challenges with providing internships and international exchanges. Indeed, the survey by (Kalika & Leighton, 2021) showed that BSs' students have experienced a serious impact during the lockdown in the sense that internships, short missions at companies, projects, and consulting activities (that would typically form part of the curriculum) have mostly decreased, even cut-down. E-learning is also challenging for teachers who are used to face-to-face teaching style and who refuse to change their teaching styles (Levy, 2003). The lack of ICT competence (Arabasz & Fawcett, 2003) poses as well a real problem for most of them. Besides, teachers might find E-learning more time-consuming (Kathawala et al., 2002) as they need to respond to each student's queries individually. Another major issue is the design of the E-learning contents especially for teachers who are not trained to creating and delivering teaching materials for online platform (Farooq et al., 2020) and who find themselves with an increased workload (Rannastu-Avalos & Siiman, 2020). Teachers might also experience serious issues observing and maintaining students' engagement in both asynchronous and synchronous classes (Farooq et al., 2020) and ensuring user reliability (Maatuk et al., 2021).

4. METHODOLOGY

Method and data collection tools: This study is a survey based quantitative study. An anonymous questionnaire imposed by lockdown and closure of universities was sent to 1200 ENCGT students to gather data.

Questionnaire development: The questionnaire was adapted from (Froman et al., 2020) and assessed by the commission in charge of scientific research. The questionnaire consisted of 2 parts. In the first part of the survey, students were asked to enter their demographic details (age, gender, year of study)**,** In the second part, respondents were given 4 sets of options regarding the 4 general areas of concern (accessibility and connectivity, technology related issues, major concerns with transition to E-learning, learning issues and mental health issues)

Data gathering: The questionnaire was accessed online from 3 of March, 2021 to 6 of July 2021 through Google form. The link was shared with the students through WhatsApp groups. Respondents were fully informed about the objectives of the study and agreed to voluntarily participate. A total of 976 participants took part in the study.

Data analysis: Data were analyzed descriptively. This included both quantitative analysis of all open-ended questions and qualitative analysis of all open questions.

5. FINDINGS AND DISCUSSION

a. SAMPLE CHARACTERISTICS

The figures below provide the information of the respondent profile based on their demographic factors and their level of study. The final sample of 976 students was 69% female and 31% male. Besides, the majority of respondents were perusing undergraduate studies while only 2.76% of them were at their 1st or 2nd year of master's degree. Over half of respondents (51.43%) were within the age group interval from 20 through 22, 32.07% were between 18 through 20, 14.14% between 22 through 24, 2.15% above 24 and only 0.2% were aged less than 18 years old.

Figure 2 Gender

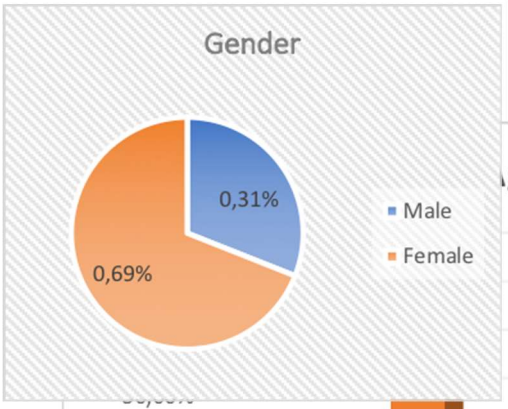


Figure 3 Year of study

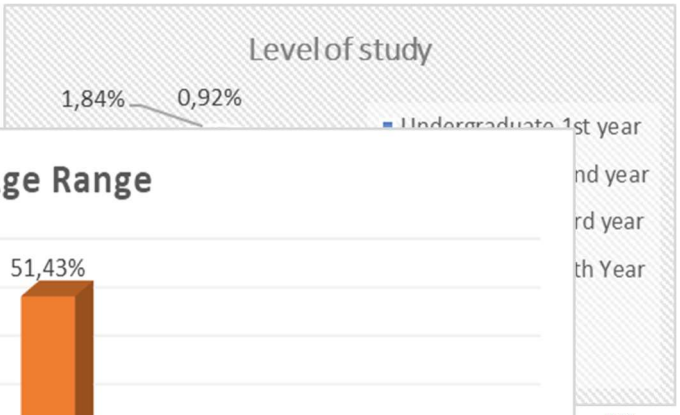


Figure 4 Age Range

b. TECHNOLOGY AND ACCESSIBILITY

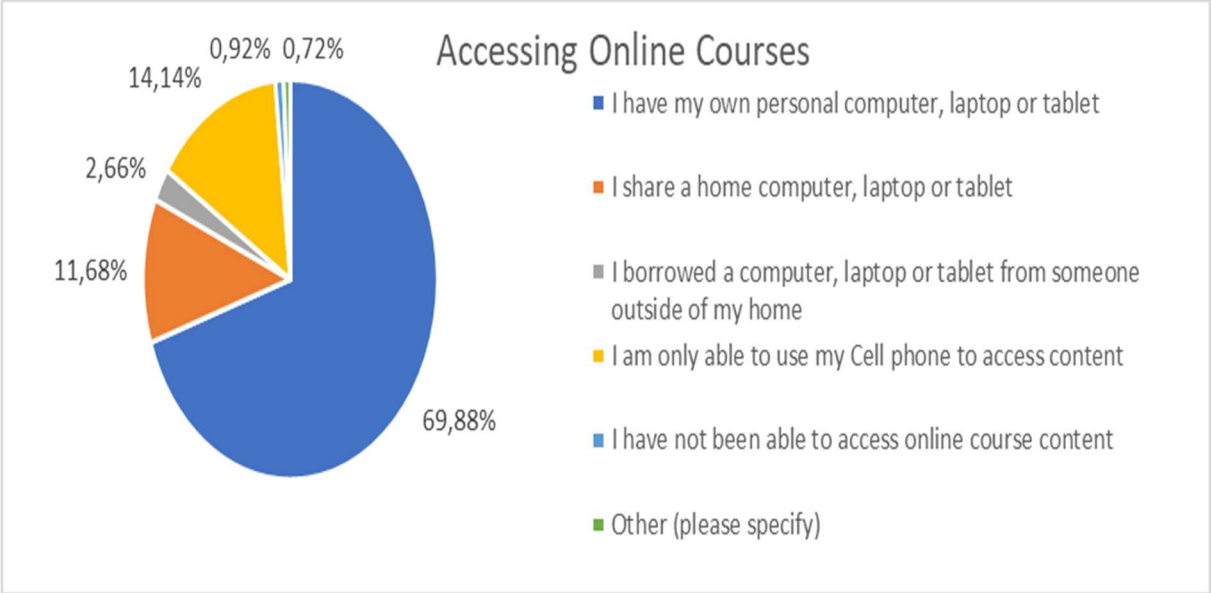
The 2nd part of the questionnaire began with questions related to 1) the technology used to attend online classes, and 2) any connectivity issues that students encountered.

- **Accessing online course content**

The first question in this section prompted students to identify how they were able to access their online course content. Results show that the majority of respondents (69,7%) reported having a personal computer, laptop or tablet, which can be considered as a good indicator of the students' technological equipment. A very close percentage (73%) was found in a study conducted in USA (Froman et al., 2020). The results indicate also that many students had to share a home computer (11.68%) or to borrow one (2.66%), which might hinder the learning process.

Concerning the devices used by students to access online study materials, the findings show that mobile phones are far less used than computers, laptops and PCs. This result is consistent with what has been found by other Moroccan researchers (e.g. (Elfirdoussi et al., 2020), but different from what was obtained in the context of some developing countries such as Namibia where mobile devices are more popular among E-learning students (Kaisara & Bwalya, 2020). Finally, the findings indicate that only a minority of students (9 students – 0.9%) were unable to access online course content.

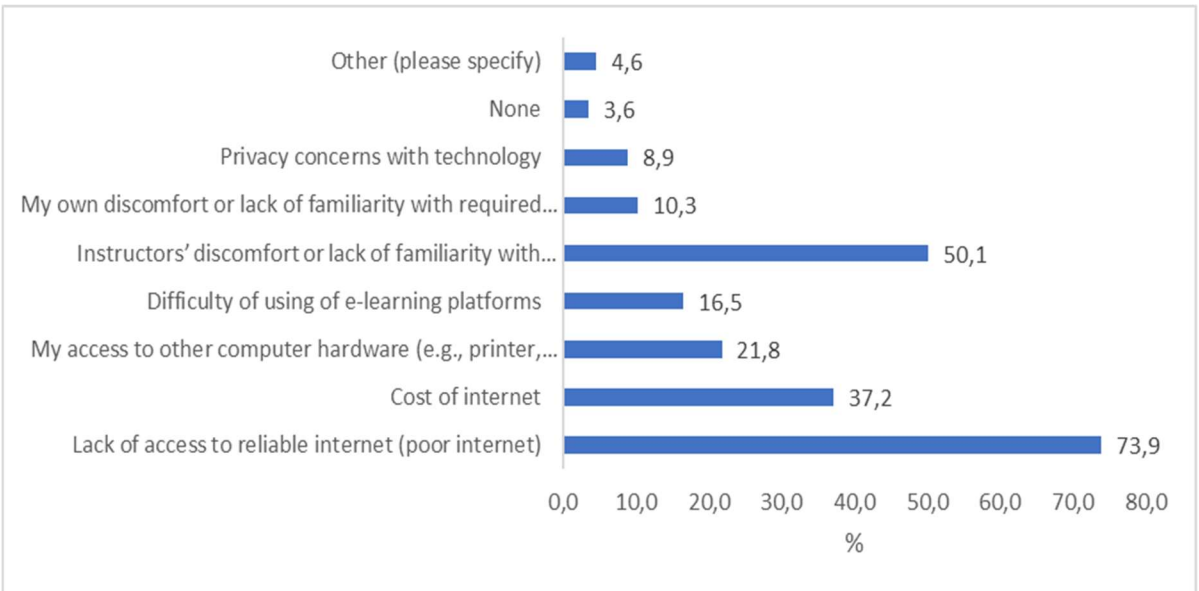
Figure 5 Accessing Course Content



- **Technological Issues**

Students identified several technical issues that they were experiencing during the transition to remote learning; the most popular challenge was the lack of access to reliable internet (73.9%). This result is consistent with previous works showing that poor access to the Internet is a big challenge, especially in developing countries ((Farooq et al., 2020) ; (Hassan, 2020)). Relatedly, the perceived high cost of Internet was regarded as being a great challenge for 37.2% of the surveyed students. This result is in line with what has been found in other studies (e.g. (Aboagye et al., 2020); (Kaisara & Bwalya, 2020)). Another challenge faced by students is related to the lecturers' technical skills. Hence, 50.1% of respondents claim that most teachers are not familiar with E-learning technologies. This finding is in accordance with what has been reported by many researchers and international organizations (e.g. (United Nation, 2020); (Pihlajamaa, Johanna; Karukka, Minna; Ålander, 2016); (Coman et al., 2020)). Other common issues were the access to other computer hardware (21.8%), the difficulty of using E-learning platforms (16.5%) and the students' own lack of familiarity with required E-learning technologies (10.3%).

Figure 6 Technological Issues



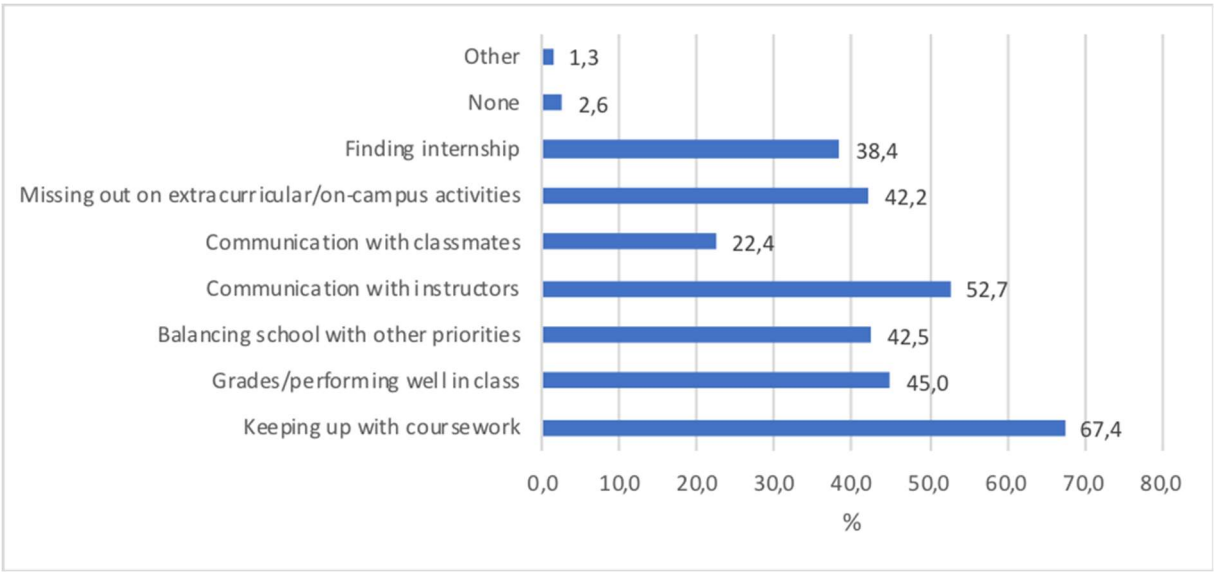
Out of the 4.6% (N = 45) of respondents that marked "other (please specify)", some of them gave more explanation for some of the issues on the list (e.g., "*I lost internet connectivity while doing an*

exam"; "*we don't have Wi-Fi at home, so the cost of internet is very high, I cannot afford it*", "*during exams, students were penalized for the internet cut out*"), while others focused on other, non-technological issues, especially lecturers' related ones ("*Some lecturers do not provide us with course materials*", "*the session recordings should be accessible on YouTube", "the course content is of poor quality").*

c. CONCERNS WITH TRANSITION TO E-LEARNING

When asked about concerns that they are facing since classes transitioned to E-learning, 67,4% of students indicated that they were worried about keeping up with their coursework, 45% were concerned about their performance and grades and 38.4% were troubled about finding internships. Relatedly, 42.5% of respondents were anxious about balancing school with other priorities. A similar pattern of results was obtained by (Froman et al., 2020). Students also reported worries about the lack of interaction / communication with teachers (52.7%) and classmates (22.4%). This finding corroborates with previous studies showing that E-learning poses serious social issues to HE students (Coman et al., 2020).

Figure 7 Concerns with Transition To E-learning



Out of the 1.3% (N = 13) of respondents that marked "other (please specify)," 9 provided more explanation for some of the issues on the list. Two students focused on the inadequate study environment (*« It is almost impossible to follow the courses in the presence of my little brothers" ... "home is not a suitable place to study"),* one student pointed out to the need for self-education *("I have to teach myself if I want to pass this year ")* while one respondent focused on the urgency of improving one's technological skills (*"I need to put more effort into learning how to effectively use E-learning platforms").*

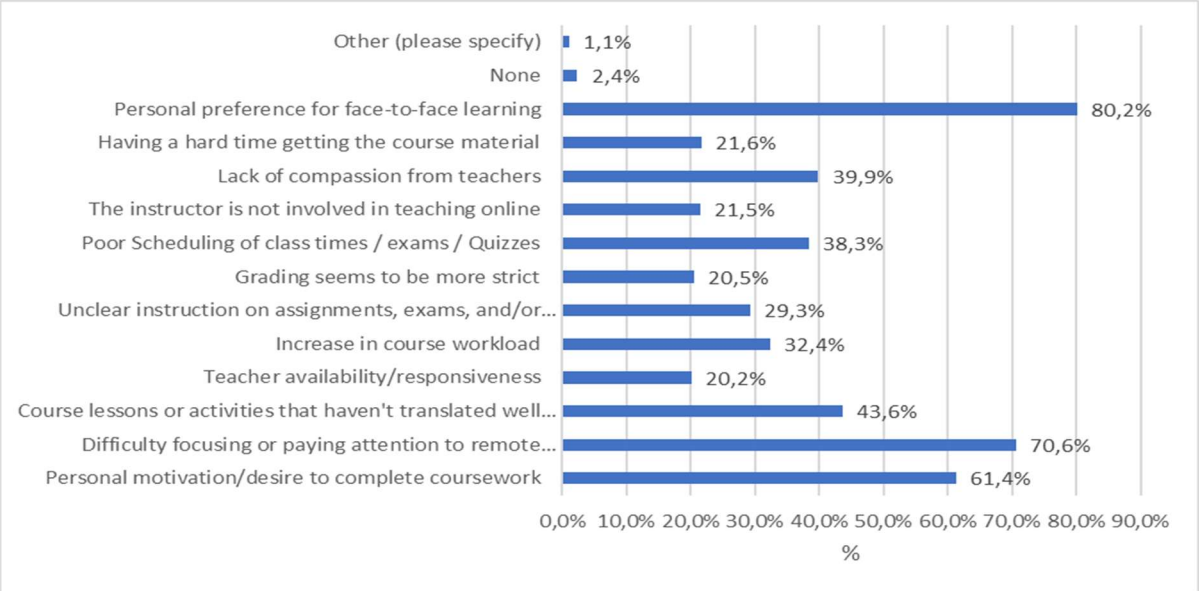
d. LEARNING ISSUES

According to the survey respondents, studying online poses many learning issues which make face-to-face learning more effective. In fact, 80.2% prefer face-to-face to online learning which supports previous studies conducted in the Moroccan context (e.g. (Elfirdoussi et al., 2020)). Among the learning issues considered important to students, were Self-control and auto-motivation: 70.6% of students expressed having trouble paying attention to remote instruction or activities and 61.4% were lacking motivation to complete their coursework. A similar conclusion was reached by (Aini et al., 2020); (Aboagye et al., 2020); and (Elkhayma, 2021), among others.

The remaining learning issues are mainly related to teachers. Indeed, 43,6% of respondents confirmed that the design of E-learning material remains poor and that most teachers did not succeed in adapting course lessons and activities to the digital environment. This finding is in line with previous studies (e.g., (Yan et al., 2021); (Anggraeni & Sole, 2018); (Coman et al., 2020)). Other issues in this category are the lack of compassion and understanding toward students (39,9%), the poor scheduling of class times (38.3%), the lack of clarity of instructions given by teachers (29.3%),

the increased students' workload (32.4%), the difficulty of getting the course material on time (21.6%), the unavailability of teachers (20.2%) and their lack of involvement in E-learning activities (21.5%). All these issues have been identified in prior research (e.g., (Froman et al., 2020)).

Figure 8 Learning Issues



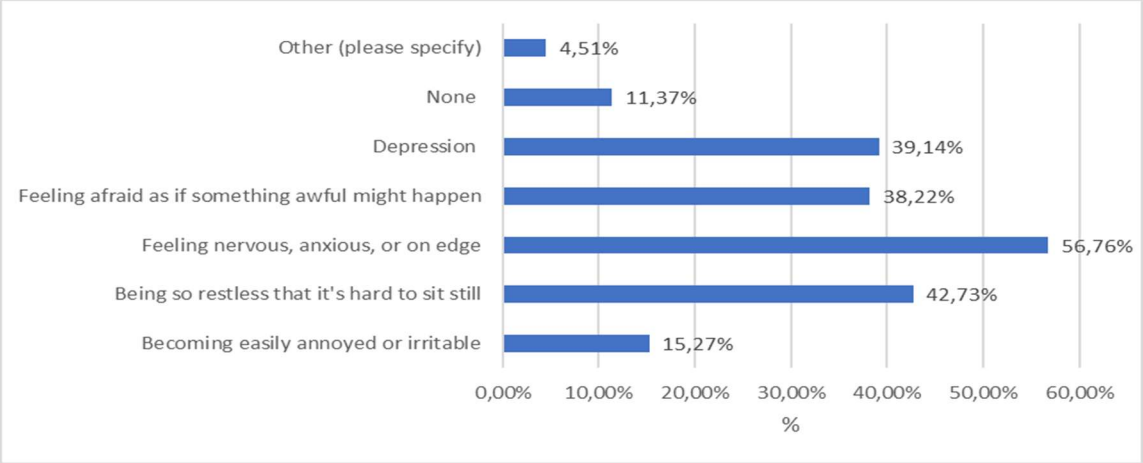
Only 23 students (2.36%) declared not having experienced any learning issues. Eleven respondents (1.1%) used the "other (please specify)" option for this question to reflect concerns that were similar to the ones on the list (e.g., *"classes are sometimes occurring on days when they are not scheduled"; "I struggle focusing on school work. My grandmother has just passed away and 3 of my family members are really sick"; "as 4th year undergraduate students, we have many specialty modules. The interaction with teachers is very important to understand the lessons. Unfortunately, learning online does not offer this possibility. It can never replace face-to-face learning").* No emerging issues were identified.

e. MENTAL STATE OF RESPONDENTS OVER THE LOCKDOWN PERIOD

In this section of the survey, respondents were asked about their mental health state during the lockdown. Over half of respondents (56.76%) reported feeling nervous, anxious, or on edge, 42.73% testified being so restless, 39.14% conveyed feeling depressed, 38.22% stated feeling afraid and 15.27% reported becoming easily annoyed/irritable.

Only 11.37% of respondents declared that they haven't had any mental health issues. These findings are in line with those from previous surveys. For instance (Son et al., 2020) found that 71% of students at a large public university in the United States reported increased levels of stress, anxiety, and depressive thoughts due to the Covid-19 outbreak. Also (Chen & Lucock, 2022) conducted a research on 1173 students at one University in North England and found high levels of anxiety and depression, with more than 50% of students experiencing levels above the clinical cut offs.

Figure 9 Mental heath Issues



Thirty students used the option "Other, please specify" to give more explanation of the issues on the list (e.g., "I think about negative ideas due to family, school and media pressure", "I had two panic attacks last week", "I was not able to attend online classes because of the cost of internet. This caused me great anxiety. I was afraid that my classmates would perform better than me in the final exam", "I have suicidal thoughts") while 9 respondents used the same option to point out to some physical health issues they had to deal with. Some of them are believed to be due to the long hours that students have to spend in front of their devices (e.g., "Studying on line caused me vision problems, it would be a good idea if the administration could reduce the number of hours per subject so students can spend less time in front of their PC", "I have back pain because I have to spend long hours in front of my computer each day") while others are the consequence of a deteriorated mental health (e.g., "I got a weird skin disease. I have itchy patches on about every part of my body"; "my vestibular system has been disturbed due to the excessive stress and anxiety", "I have heart palpitations, I feel my heart is racing and I know this is due to anxiety and stress"). Finally, 5 respondents used the option "Other please specify" to make evident the advantages of studying on line (e.g., "on the contrary, E-learning had a positive impact on my private life and on my mental health", "there were also positive changes. We learned to work remotely and interact online", "E-learning helped us improve our technological skills and learn new digital tips and tricks", "we learned to be more patient", "I have attended almost all of the online classes, I just loved it!", "for me, E-learning is motivating. It allows me to study comfortably and without stress. Besides, it is time effective")

6. CONCLUSION

The ongoing pandemic has shown that despite the various initiatives which have been launched by the successive government to enhance the digitalization of the Moroccan society, the use of ICT in education remains at the developing stage. In early 2020, the lockdown forced millions of students to shift to fulltime online learning. This rapid move has resulted in many issues that students had to deal with. The present study has been conducted in order to explore the ENCGT business School students' perceptions of E-learning during the lockdown. Technological issues (accessibility and connectivity), social issues (interaction with teachers), lecturer related issues (lack of technical and communication skills, poor course design, etc.), personal issues (lack of motivation and self-control) and mental health issues (depression, anxiety and stress) have been identified. In order to help address accessibility issues, internet operators should ensure that internet connectivity is strong and reliable. They should also consider reducing the cost of internet so students would be able to afford it. Furthermore, the ministry of higher education should provide student in need with devices and laptops in order to bridge the technology gap faced by many of them. Besides, and in order to adapt to the increasingly digitized world and increase the resilience of the higher education sector, universities should consider generalizing the use of the blended approach (during and even after the Covid-19 outbreak) where both face-to-face and online teaching modes are used in a complementary

way. Additionally, teachers need to understand that online teaching is not simply a matter of sharing learning materials online or giving online lectures. Continuous and relevant training is needed to help them improve their technical and communication skills. Training is also useful for them in the sense that it would help them master the tools and methods that allow them to design well-structured, supportive and appealing E-learning course materials. Finally, adequate, personalized, and evidence-based psychological support to student is urgently needed to help them overcome the long-term consequences of Covid-19 crisis.

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