



DEPARTMENT OF APPLIED IT,
IT FACULTY

UNIVERSITY TEACHERS' AND STUDENTS' PERCEPTIONS OF ONLINE EDUCATION IN CROATIA AND SWEDEN

Authors

Ivna Tunjic

Moaath Haggag

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Abstract

With the onset of the COVID-19 pandemic and the lockdown measures that followed, the education system worldwide has been affected. Consequently, the imposed online education environment has been a new and challenging experience for students and teachers. Focusing on Europe with its diverse higher education systems, there is a lack of comparative research on similarities and differences between teachers' and students' perceptions of online education in two different contexts. Therefore, this study aims to explore and compare how master's students and teachers experience online education during COVID-19 in two different European countries - Croatia and Sweden. For this purpose, thirty semi-structured interviews were conducted with teachers and students from both contexts and thematic analysis was utilised to generate findings. This study reveals agreement in both cases about the benefits of online education, such as flexibility and accessibility. However, the negative sides are stronger emphasised in the Croatian context. Further, our findings align with previous research on similar topics, exposing that physical education is still a preferred form. Apart from this, our research revealed two specific contexts that emerged in each country. Namely, a specific challenge that occurred in the Croatian context was the organisation of online exams. On the contrary, participating in and managing multicultural online classes is a speciality in the Swedish context. Further, this study emphasises the need to consider more engaging activities in future online classes, implement hybrid lectures as a future model for educational systems, and investigate the significance of personality traits in adapting to online education.

Keywords: Online education, COVID-19, teachers' and students' perceptions, similarities, differences, Sweden, Croatia

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Table of Contents

1. Introduction	1
2. Literature Review	4
2.1. The development of online education and factors that influenced it.....	4
2.2. Benefits and challenges of online education.....	6
2.3. Online education during the COVID-19.....	8
2.4. Different countries' responses to sudden online education.....	9
2.5. Students' perceptions about online education during COVID-19.....	11
2.5.1. Interaction and communication.....	11
2.5.2. Study content and materials.....	12
2.5.3. Students' motivation.....	12
2.5.4. Internet accessibility, issues and students' technical skills.....	14
2.6. Teachers' perceptions about online education during COVID-19.....	15
2.6.1. Online versus classroom teaching mode.....	15
2.6.2. Personal factors in online teaching.....	16
2.6.3. Student factors in online classes.....	16
2.7. The literature gap and research questions.....	17
3. Methodology	19
3.1. Research method.....	19

3.2. Data collection.....	19
3.2.1. Recruitment and sampling.....	20
3.2.2. Semi-structured interview guide.....	25
3.2.3. Validity.....	26
3.3. Data analysis.....	26
3.3.1. Thematic analysis.....	26
3.3.2. Transcription.....	27
3.3.3. Coding.....	27
3.3.4. Themes.....	28
3.4. Trustworthiness.....	29
3.4.1. Reliability.....	29
3.4.2. Validity of qualitative research.....	30
3.5. Limitations of qualitative research.....	31
3.6. Ethical considerations.....	31
4. Findings.....	33
4.1. Teachers' perceptions of online education in Croatia and Sweden during COVID-19.....	33
4.1.1. Advantages of online education.....	34

4.1.2. Challenges of online education.....	35
4.1.3. Preparation of online lectures.....	37
4.1.4. Perception of communication and students' participation in online classes.....	38
4.1.5. Effects of online education on motivation and well-being.....	40
4.1.6. Specific contexts.....	42
4.1.6.1. The organisation of online exams.....	42
4.1.6.2. Multicultural online classes.....	43
4.2. Master students' perceptions of online education in Croatia and Sweden during COVID-19.....	43
4.2.1. Advantages of online education.....	44
4.2.2. Challenges of online education.....	45
4.2.3. Learning in the online environment.....	46
4.2.4. Communication in online education.....	48
4.2.5. Effects of online education on motivation, productivity and well-being.....	50
4.2.6. Specific context.....	52

4.2.6.1. Influence of multicultural online classrooms on students in Sweden.....	52
5. Discussion.....	54
5.1. Teachers in Croatia and Sweden.....	54
5.2. Students in Croatia and Sweden.....	59
6. Conclusion.....	66
6.1. Research summary.....	66
6.2. Limitations of the study.....	68
6.3. Future research.....	68
Reference List.....	70
Appendix 1: Semi-structured interview guide for University of Gothenburg teachers.....	80
Appendix 2: semi-structured interview guide for Croatian Catholic University teachers.....	82
Appendix 3: Semi-structured interview guide for University of Gothenburg students.....	84
Appendix 4: Semi-structured interview guide for Croatian Catholic University students.....	86
Appendix 5: Consent Form.....	88
Appendix 6: Transcripts of Interviews.....	90
Appendix 7: Organisation of themes and codes.....	91

1. Introduction

The COVID-19 pandemic has changed our lives extensively, including aspects of social life and the economy. In this vein, the educational system was forced to adapt to the new global situation. Consequently, the online learning environment has been globally booming as mainstream and physical classrooms were less utilised. Europe was no exception and its countries responded to the pandemic outbreak similarly by relying on online and distance learning. This policy entailed different European countries such as Croatia and Sweden. In Sweden, Prime Minister Stefan Löfven recommended on the 17th of March 2020 that schools and universities could implement online learning instead of physical classrooms (Radosevich, 2020). Moreover, in Croatia, Prime Minister Andrej Plenković announced on the 13th of March 2020 the suspension of physical education and the commencement of online classes for schools and universities from the 16th of March 2020 (Penić, 2020). As a result, students and teachers in both countries have started attending their classes more in the online formats and miniature in the physical classes.

However, even though both countries adopted a similar policy on learning and communication, there are differences in their educational systems. For instance, in the Swedish context, English is the language of working and studying for most master's programmes. The implication of this fact is quite simple; the Swedish education system tends to be a diverse, inclusive and international one that incorporates non-Swedish students, unlike the case of the Croatian system, which is more oriented toward Croatian speaking inhabitants and students. For instance, even though these two countries are "signatory countries of the Bologna Process" (Doolan, Dolenc & Domazet, 2012, p.7), they differ in many other higher

education aspects such as having international students. Namely, it is stated that Sweden has 10,3% of international students, while on the other hand, Croatia has only 2,6% international students (Doolan et al., 2012). Interestingly, the majority of these students are from former Yugoslavia countries (2,2%) and a smaller amount is from EU countries (0,14%) and the rest of the world (0.16%) (Ministry of Science, Education and Sports, 2007 as cited in Doolan et al., 2012). To clarify, most international students in Croatia share very similar or almost the same language, so there is no need for English as a language for communication.

Furthermore, Europe is diverse in its higher education provision; thus, transit to online learning could lead to different effects across contexts. Therefore, there is a need to compare teachers' and students' experiences of online learning in different contexts. To the best of our knowledge, there are seldom comparative studies on the education system in our target countries, Sweden and Croatia. Previous studies mainly investigated online learning in COVID-19 by focusing on one case/country, but comparative research is rare.

Hence, we aim to contribute to the scholarly literature in this field by conducting a comparative case study regarding both countries, focusing mainly on the COVID-19 period and the adaptation of their higher education systems to the pandemic. Based on previously mentioned arguments and because it is far beyond our resources and capabilities to conduct massive and panoramic research on the entire education system in both countries, we decided to emphasise one educational institution from each context. Thus, this research could indicate the orientation and performance of the whole education system in both Croatian and Swedish contexts. Specifically, the research question and sub-questions of this study are presented below:

RQ: What are the similarities and differences between university teachers' and students' perceptions of online education during COVID-19 in Sweden and Croatia?

To better answer this research question, we draw on four sub-RQs to guide the data collection and analysis of this study:

SRQ1: How did university teachers perceive online education during COVID-19 in the Croatian university?

SRQ2: How did university teachers perceive online education during COVID-19 in the Swedish university?

SRQ3: How did university master's students in Croatia perceive online education during COVID-19?

SRQ4: How did university master's students in Sweden perceive online education during COVID-19?

The study begins by reviewing the previous literature about the development of online education, its frequent use in COVID-19 and teachers' and students' perceptions of it. Further, we present the methodology chapter for which data was collected using a qualitative method - semi-structured interviews. The following is the findings chapter with the data analysis. Subsequently, the discussion and conclusion chapters will be outlined with the study's limitations and proposed opportunities for future research.

2. Literature Review

The Evolution of Information and Communication Technology (ICT) caused the emergence and development of online education (Sarkar, 2012). Moreover, the outbreak of COVID-19 has made online education an everyday occurrence. Therefore, this literature review aims to briefly outline and discuss previous literature about the development of online education, its frequent application during the first few months of the COVID-19 pandemic, and higher education main stakeholders (i.e. teachers and students) perceptions of it.

2.1. The development of online education and factors that influenced it.

With the development of technology and digitalisation in the other half of the twentieth century and the beginning of the twenty-first century, media advancement and the evolution of Information and Communication Technology (ICT) set a foundation for online learning and education (Sarkar, 2012; Marani, Subarkah & Wijayanto, 2020). Further, this rapid transformation of the world into a digital media and information environment highlighted the importance of ICT in improving educational quality (Toro & Joshi, 2012). Over the past years, it has been argued that “a great deal of our communication activity has moved online, and various forms of online communication have also been introduced to education” (Hampel, 2014, p.1). This type of education is described in several terms. For instance, Amity (2020) used the term online learning, describing it as a system that functions in a virtual classroom environment, where both - the teachers and the students collaborate to send and receive knowledge.

Further, Marani et al. (2020) used the term distance learning as one where lecturers and students are physically separated. Therefore, it can be noted that online education is a broad concept with overlapping terms. Some authors perceive these terms, such as “e-learning, blended learning, online education, online courses” (Singh & Thurman, 2019) as synonyms, while others consider some of these terms to be broader. Likewise, Moore, Dickson-Deane, and Galyen (2010) stated that scholars are confused and sometimes mix terms of online education and their synonyms because of their close relationship in terminology but for different descriptive narratives. However, for the purpose of this paper, in terms of clarity, we will use the term online education as one that applies to all forms of non-physical education but rather the virtual, web-based learning.

Several factors caused the appearance and development of online education. As mentioned above, online education is growing worldwide due to globalisation and new technologies (Palvia et al., 2018). This resulted in many traditional educational systems transferring to distance learning systems. These educational systems are different from traditional ones in a way that lecturers and students are being physically separated and thus, the interaction between them is mediated by a digital platform (Marani et al., 2020). This way of communicating is known as Computer-Mediated Communication (CMC). Owing to the “prevalence of computer-mediated communication (CMC) in education” (Thompson, 2008, p.20) and its rapidly increased usage in higher education (Tolmie & Boyle, 2000; Guo, Tan & Cheung, 2010), the number of online courses increased. December (2022) gave a simple definition of CMC, stating that it is “the process by which people create, exchange, and perceive information using networked telecommunications systems (or non-networked computers) that facilitate encoding, transmitting, and decoding messages”. Furthermore,

when it comes to characterising CMC, Marani et al. (2020) claimed that “asynchronous and synchronous communication capacity, high interactivity, and multi-path communication” (p.97) are its foundational components. Similarly, Zhang and Kenny (2010) mentioned that CMC includes synchronous and asynchronous digital tools. Further, as examples of these tools, some authors proposed - online discussion boards and forums, chat rooms, video or audio conferencing, whiteboards, newsgroups, the web and many others (Palvia et al., 2018; Guo et al., 2010). However, due to the nature of this paper, the focus will mostly be on synchronous communication, which is defined as “an environment where the teacher and the students meet online on a specific online platform for teaching and communicate about a lesson” (Amiti, 2020, p.62).

Additionally, to former factors causing a growing number of online courses and programmes, some authors mentioned other factors such as - technologies becoming less expensive, higher availability of different forms of multimedia, financial rewards for universities to adopt online education and the rise of students with full-time jobs or family responsibilities (Zhang & Kenny, 2010; Palvia et al., 2018; Sarkar, 2012). Moreover, one more critical factor recently appeared - the global pandemic of COVID-19. This pandemic shifted the whole traditional educational system and forced it to switch entirely online for a few months, and in some countries longer. Owing to the factors stated above and their influences on education, benefits and challenges of online education will be presented below.

2.2. Benefits and challenges of online education

As well as traditional forms of education, online education also has its benefits and challenges. For instance, Appana (2008) stated that improved quality of learning, reduced costs, better

preparation of students to respond to market demands and collaborative learning are some of the benefits of online education. Furthermore, a study by Bartolic-Zlomislic and Bates (1999) noted improvement in students' writing, computer and time management skills, while Kim, Liu and Bonk (2005) wrote that flexibility, better interaction with teachers and virtual teaming skills are benefits that derived from online education. In addition, concerning the location, Zhang and Kenny (2010) claimed that geographically dispersed students benefit from this kind of education since it allows them to be enrolled in courses without being physically present.

On the contrary, despite many benefits of online education, researchers also pointed out several limitations and challenges of it. For instance, researchers presented organisation, preparedness, and student readiness as possible challenges (Appana, 2008, Bartolic-Zlomislic & Bates, 1999). Further, difficulties in communicating with peers, socialisation and the absence of real-life feedback are also some of the claimed limitations of online education (Kim et al., 2005). Similarly, Bejerano (2008) highlighted five shortcomings of online education. Firstly, he stated that students' academic and social integration into educational and learning environments is threatened by online education. Because of this, students are missing out on many on-campus experiences, which can lead to alienation and isolation. As a second point, Bejerano (2008) claimed that since the online education environment demands students to be self-disciplined and independent, it can cause unintentional damage to them if they are not well prepared. Thirdly, he stated that educational institutions can be compromised due to the time-consuming organisation and settings that online education requires. As a fourth challenge, he pointed out that not all learning objectives are fitting into an online education environment. Lastly, he stated that a "fifth shortcoming of online instruction is the perceived

value of degrees earned online” (Bejerano, 2008, p.413). Another aspect that can be challenging to achieve in online classes is creating positive classroom dynamics (Paige & Vande Berg, 2012). Students communicate through language and culture, which establishes relationships between the students in the class (Paige & Vande Berg, 2012). In addition, when students establish relationships and form a community, they become more dynamic and they feel more comfortable and motivated to participate and interact; thus, they become more efficient in the learning process (Dautbašić & Saračević, 2020).

To sum up, “learner isolation, absence of immediate feedback, learner frustration, anxiety, confusion, self-motivation, a strong sense of commitment to online learning, engagement, and difficulties in communication between the students and teachers” (Barzani & Jamil, 2021, p.32) can be taken as the common challenges of online education.

2.3. Online education during the COVID-19

With the onset of the COVID-19 pandemic, the world has faced many changes and challenges. It is argued that these changes contributed to the increase in fear, anxiety, and several other concerns in people (Paudel, 2021). Various aspects of people’s lives have been affected by the social distancing measures applied worldwide to prevent the transmission of the mentioned virus. Moreover, organisations and educational institutions were forced to modify their work policies and rely almost entirely on new technologies (Chakraborty, Mittal, Sheel-Gupta, Yadav & Arora, 2020), regardless of their readiness for such an undertaking (Chakraborty et al., 2020; Ali, 2020, Lei & So, 2021). Thus, the COVID-19 pandemic caused the physical form of working and studying to be replaced with an online preventive mode (Paudel, 2021), which resulted in higher education moving to remote online courses (Aguilera-Hermida, 2020; Ali, 2020;

Chakraborty et al., 2020; Joshi, Vinay & Bhaskar, 2020). Given this situation and without knowing whether things will go back as they were; educational institutions, teachers and students were forced to experiment and adapt in various ways to this, not so new but currently predominant form of education (Muthuprasad, Aiswarya, Aditya & Jha, 2021). Consequently, considerable changes occurred when educational institutions closed (Babbar & Gupta, 2021).

Various recent studies investigated how online education was carried out during the first months of the pandemic when schools and universities were closed. Researchers were interested in how different countries approached this sudden transition from physical to online education settings and which measures they took (Babbar & Gupta, 2021). Moreover, researchers investigated various aspects of university teachers' and students' perceptions, adaptation, and acceptance of this model. For instance, Chakraborty et al. (2020), Aguilera-Hermida (2020), Sarkar, Das, Rahman & Zobaer (2021) and Muthuprasad et al. (2021) focused on examining students' perceptions and acceptance of online education while others such as Joshi et al. (2020) and Casacchia et al. (2021) investigated teachers' experiences on online education.

2.4. Different countries' responses to sudden online education

Since the whole world was affected by a new and unknown virus, educational institutions in different countries faced significant changes in their previous educational systems and responded to them due to their resources and capabilities (Babbar & Gupta, 2021). In their study "Response of educational institutions to COVID-19 pandemic: An inter-country comparison", Babbar and Gupta (2021) outlined strategies from six World Health Organisation

(WHO) regions - the African region, Regions of Americas, South-East Asia region, European region, Eastern Mediterranean region and Western Pacific region. Further, countries in these regions differed in technological preparedness for online education. Thus, when COVID-19 set a demand for online education, countries with established online infrastructure only improved their use. In contrast, other countries managed their adaptation through alternative platforms used for online learning (Babbar & Gupta, 2021). Furthermore, countries of Americas and European regions with previously developed and structured online education policies have more easily accepted the sudden transition to complete online education (Babbar & Gupta, 2021).

This paper will examine the cases of two European countries, Sweden and Croatia. Namely, Sweden was already familiar with using digital platforms and tools in higher education (Ślaski, Grzelak, & Rykała, 2020). Moreover, the transition to distance education was smooth, thanks to the learning management systems and videoconference tools utilised at many universities before the pandemic occurred (MILTINCLUDE, 2020). Considering Croatia, Bagaric, Plantak and Skof (2021) wrote that only a small percent (20%) of higher education classes were conducted remotely. The authors claimed this is due to political, economic and infrastructural problems that are supported by the lack of strategic policies for developing online learning. Moreover, in Croatia, the attitude that distance learning and online education were not “real classes” was still present (Bagaric et al., 2021). However, in spite of numerous challenges that occurred due to the unpreparedness of Croatian higher institutions, because of the effort of stakeholders included in the process, the Croatian higher education system managed to organise and adapt well to the online learning environment (Bagaric et al., 2021).

2.5. Students' perceptions about online education during COVID-19

In their research, many scholars focused on different factors and elements while examining students' adaptation, attitudes, preferences, and perceptions, in general, concerning sudden online education caused by the COVID-19 pandemic. For transparency and easier understanding, these factors are grouped into several topics that seem important and are listed below.

2.5.1. Interaction and communication

Communication is a crucial element of life, and in online settings, it is claimed to be limited (Mirkholikova, 2020). Numerous studies provided evidence for it. For instance, some studies exposed that students preferred face-to-face communication in a physical classroom over the one in an online classroom setting. Thus, Muthuprasad et al. (2021) discovered that 60% of their respondents view online classes as inadequate while communicating with the instructor, unlike in face-to-face class settings. Similarly, Agung, Surtikanti and Quinones (2020); Chakraborty et al. (2020), and Barzani and Jamil (2021) stated in their papers that the majority of students preferred traditional classrooms where they could get a direct explanation of materials and tasks and better interaction with teachers during the physical class. Moreover, the online education environment posed challenges for students since they reported that their overall interaction with teachers and classmates is being reduced (Aguilera-Hermida, 2020; Akuratiya and Meddage, 2020; Sarkar et al., 2021).

2.5.2. Study content and materials

Researchers studied students' opinions about the content and materials in online education. Barzani and Jamil (2021) stated "the content delivered online is more theoretical and does not allow the chance of practice" (p.31) as an issue with content in digital education. However, results from the studies exposed that students were more considerate about understanding the content rather than whether it was too theoretical. In this regard, Sarkar et al. (2021) stated that students participating in their study said they had difficulties understanding class contents and lectures since online classes have not managed to create a natural classroom environment. In contrast, Chakraborty et al.'s (2020) paper disagrees with previous findings. Namely, the results of their study showed that the majority of questioned students appreciated and felt that study material in an online environment is useful, valuable and easy to understand.

2.5.3. Students' motivation

Motivation is another important aspect of learning. Schunk and DiBenedetto (2020) described it as a process that stimulates and maintains goal-directed activities. Moreover, motivation is connected to internal and external factors and thus, it can be intrinsic or extrinsic (Gustiani, 2020; Reiss, 2012). Reiss (2012) stated that intrinsic motivation could be defined as "doing something for its own sake" (p.152). On the contrary, extrinsic motivation "refers to the pursuit of an instrumental goal" (p.152) when one is doing the action to please others or win an award.

Further, several studies were interested in students' motivation to learn in an online learning environment. Therefore, in his study Gustiani (2020) found that all interviewed participants

were intrinsically motivated during emergent online learning. It is reported that motivation for their online learning was driven by two factors: “their (1) ambition and belief to learn and gain new knowledge; and (2) enjoyment in experiencing new learning methods” (p.32). Furthermore, five of eight participants stated that their motivation for online learning was driven by two external factors - (1) avoidance of compensation for being absent and (2) proper supporting equipment (Gustiani, 2020). However, some participants said they were not motivated because they were frustrated with technology and its issues connected to accessibility and a bad picture or delayed sound.

Similarly, Rosa and Domos (2021) found out that students who had difficulties understanding class materials and lectures or had a low-quality internet connection felt less motivated to contribute to online classes. In contrast, intrinsic motivational factors such as self-awareness, desire for knowledge and enjoyment of learning boosted the motivation of 58% of examined students (Rosa & Domos, 2021). Moreover, students were motivated by punishments and bad remarks for being absent from the online class, which presents their extrinsic motivation (Rosa & Domos, 2021).

In general, findings from some studies displayed that students were more motivated to learn in a physical classroom learning setting because of interaction and socialisation with other students and teachers and various activities rather than in an online classroom (Aguilera-Hermida, 2020; Xhelili, Ibrahim, Rruci & SHEME, 2021). Connected to that, Barzani and Jamil (2021) claimed that self-discipline is an essential aspect of online education because there is a lack of supervision.

2.5.4. Internet accessibility, issues and students' technical skills

The online educational system requires the usage of various digital educational platforms (e.g., Canvas and Blackboard), communication tools (e.g., Zoom, Google classroom, Microsoft Teams and emails) and access to the internet (Aguilera-Hermida, 2020). Further, Aguilera-Hermida (2020) described accessibility as referring to “the students’ access to the internet, a reliable device, and technical support” (p.4). Moreover, stable access to technologies is an essential precondition for online education (Chakraborty et al., 2020). Therefore, as the main problem, many studies noted access to the internet and data with their limitations. For instance, Muthuprasad et al. (2021) claim that students indicated lack of connectivity as a main technical drawback in online learning, followed by limitations of internet infrastructures concerning data speed and limits. Similarly, Barzani and Jamil (2021) in their questionnaire, discovered that 76% of students experienced problems with internet connection while accessing their online courses, while 57% of students in Akuratiya and Meddage’s (2020) study reported technological problems such as – low access, poor internet speed and difficulties in downloading and installing applications and materials for the online class.

Interestingly, in her study, Aguilera-Hermida (2020) found out that accessibility is about access to the internet which is also connected to the number of people living (studying and working) in the same household. Moreover, she noted that lack of accessibility is also related to students’ level of cognitive engagement (Aguilera-Hermida, 2020). Therefore, those with limited access to digital technologies and little knowledge about them have trouble adapting to online education (Chakraborty et al., 2020).

Even though in the beginning students were having trouble adapting to online education due to the lack of required computer skills (Barzani & Jamil, 2021), it is reported that distance

learning improves students' technical skills (Mirkholikovna, 2020). This is supported by Muthuprasad et al.'s (2021) study, where half of examined students stated that online learning improved their technical skills. Moreover, some students showed improved knowledge of using new learning tools needed in online education (Aguilera-Hermida, 2020).

2.6. Teachers' perceptions about online education during COVID-19

This part will outline teachers' perceptions and opinions on emergent online teaching and overall education during the COVID-19 pandemic. For this purpose, we used Nambiar's (2020) approach to teachers' perceptions, where she presented them through three dimensions: "online v/s classroom mode, personal factors and students' factor during online classes" (Nambiar, 2020, p.786).

2.6.1. Online versus classroom teaching mode

In her study, Nambiar (2020) wrote that most teachers expressed their preferences towards traditional classroom teaching, regardless of the fact that they agreed that online classes are more convenient in terms of comfort and saving time. Likewise, traditional classrooms seem to be a more favourable form for teaching specific courses such as - numerical, experimental and communication since they do not entirely fit into online mode due to their needs for practical tasks and face to face discussion (Joshi et al., 2020).

Regarding technical aspects, certain issues were spotted. Scholars claimed that many teachers were facing power cuts, low and unstable connection and poor audio and video quality which affected the lecture flow (Nambiar, 2020; Casacchia, 2021). Furthermore, besides the technical issues, teachers said they did not have the proper training to familiarise themselves

and maintain online lectures through digital tools and platforms (Joshi et al., 2020). However, some teachers reported that the technological aspect of the online teaching mode helped them use innovative teaching methods and improve their technical skills (Nambiar, 2020).

2.6.2. Personal factors in online teaching

Considering teachers' personal factors, many reported less satisfaction while working online, mainly because they felt they lacked the required computer skills for effectively managing online teaching platforms (Nambiar, 2020; Joshi et al., 2020). Moreover, some authors reported that teachers felt a lack of motivation for conducting online classes due to the longer time needed for preparing class lectures, decreased personal interaction with students and lack of students' participation in classes (Nambiar 2020; Joshi et al., 2020; Moorhouse & Kohnke, 2021). Furthermore, Casacchia et al. (2021) noted that the majority (64, 7%) of Italian teachers in their study "complained about the "discomfort of speaking" in the void "through a camera, without face-to-face contact with the students"" (p.6). Additionally, Moorhouse and Kohnke (2021) wrote that teachers were frustrated with students not turning cameras on and engaging actively in class, which led to teachers' emotional and physical exhaustion.

2.6.3. Student factors in online classes

An important aspect for teachers handling online classes is the collaboration with students and their involvement and participation (Nambiar, 2020). Thus, results displayed that the teachers noticed an increased number of students were making excuses for attending class. (Nambiar, 2020). On the contrary, teachers in Casacchia et al.'s (2021) study claimed that there was a higher number of students attending online classes. Other recognised issues were

decreased involvement of students during online lectures and not taking online classes as seriously as ordinary ones (Nambiar, 2020).

2.7. The literature gap and research questions

Various articles covered online education in many aspects. However, besides examining the phenomenon of online education and students' and teachers' perceptions of it, in our view, the social and cultural aspects of the online education environment are also worth studying. That is because it is not unusual for students worldwide to be in an online educational environment and because of that, they are exposed to different cultural conditions and expectations (Zhang & Kenny, 2010). Thus, learning in that kind of environment raises questions such as mutual communication, learning, sharing knowledge and different perceptions of online lectures. Further, to our knowledge, some studies examined and compared online education systems in various countries (Palvia et al., 2018; Toro & Joshi, 2012; Babbar & Gupta, 2021). Moreover, Aguilera-Hermida (2020) pointed out a gap in research comparing different countries and their students' and teachers' perceptions of emergent online education caused by COVID-19. Apart from that, Doolan et al. (2012) indicated the importance of international comparative studies, saying:

Internationally comparative studies on higher education are of particular value because by highlighting differences or similarities in policies, practices and outcomes across different countries, they allow for better understanding of the strengths and weaknesses of the national higher education system. This process can result in developing new approaches for addressing a policy issue based on best-practice, or in defining benchmarks in a policy area. (p.7)

Further, some researchers who studied online education raised questions about the suitability of online instructions for different courses (Bejerano, 2008; Joshi et al., 2020). To our knowledge, there are not many studies that cover how teachers and students perceive their master's programmes during emergent online education in two different countries. Therefore, to respond to a research gap, our study aims to compare and find similarities and differences in perceptions of teachers and students in two different higher educational contexts in Sweden and Croatia. By investigating this, our study can contribute to understanding the strengths and weaknesses of the national online higher education system, which can then help create beneficial policies and practices for the future.

3. Methodology

3.1. Research method

A qualitative research design was used in this study to obtain the master students' and teachers' opinions and perceptions on the sudden transition and adaptation to online education and CMC caused by the COVID-19 pandemic. According to Wray and Bloomer (2012) and Bryman (2012), the qualitative research approach involves description and analysis rather than quantification of data analysis. Additionally, Bryman (2012) notes that the theories in qualitative research are supposed to result from an investigation. Also, Bryman (2012) explains that qualitative research focuses on understanding values, beliefs, and small-scale aspects of social reality. Contrary, quantitative research focuses on a large population and finds answers to how much instead of how and why. Therefore, the quantitative approach is less suitable for this study. Furthermore, our study aims to investigate the master teachers' and students' perceptions of online education during COVID-19 in Croatia and Sweden. Thus, the qualitative research approach is the most appropriate and chosen for this study.

3.2. Data collection

The empirical data collection for this study is based on online semi-structured interviews. The interviews were video and audio recorded and all data from these interviews were transcribed to serve as the basis for data analysis. Moreover, the transcribed interviews can be found in Appendix 6. The following sub-headings explain the interview processes and the selection criteria of the participants for the study. Also, the method's validity is noted before presenting the data analysis.

3.2.1. Recruitment and sampling

This study compares two higher education systems and we choose to focus on the master's programmes of one university from each country. In the Swedish higher education system, many master's programmes in Swedish universities are international and the language of instruction is English (University, 2021). Also, both Swedish and international students can apply for these master's programmes as long as they have earned a bachelor's degree and proven English proficiency (University, 2021). Similarly, both Croatians and international students can apply for master's programmes at Croatian universities. However, unlike in Sweden, international students are not common in Croatian master's programmes. Moreover, most of the master's programmes in Croatia are in the Croatian language, except for ERASMUS students or some specific programs taught in English (Hrvatsko katoličko sveučilište, 2022).

In this sense, we chose University of Gothenburg as a representative university of Swedish higher education and the Catholic University of Croatia as a representative university of Croatian higher education. The rationale behind selecting these two universities is that they are well-established universities. Further, since COVID-19, they utilised the online education format in their bachelor's and master's programmes for at least one year. Besides, those two universities have similar master's programmes in communication studies. However, there are notable differences between the two master's programmes, such as teaching language and eligibility. Thus, we chose the master's programmes in communication studies to investigate their resilience during the pandemic. Another reason for choosing master's programmes in communication studies was the accessibility because we (the two authors) are communication master's students at University of Gothenburg. Besides, one of the authors has direct contact with communication master students and teachers at the Catholic University of Croatia.

All interviewees who were recruited to participate in the semi-structured interviews are as follows: five teachers and ten master's students from the Catholic University of Croatia (see tables 1 and 2), as well as five teachers and ten master's students from the University of Gothenburg (see tables 3 and 4). In order to avoid bias in the research, our supervisor was not one of the interviewed teachers.

Purposive sampling through snowball sampling was used to recruit the participants. Bryman (2012) notes that the snowball sampling technique happens when an initially small group of participants suggests other potential participants who have the same characteristics required for the research. Also, one of the authors contacted three communication master's students at the Catholic University of Croatia and through the snowball sampling method, we recruited seven more participants. Additionally, the recruitment process of the ten communication master students from University of Gothenburg was achieved quickly because these students are the authors' classmates.

Moreover, the five teachers from the Master in Communication programme at University of Gothenburg were contacted directly and invited for the interviews through direct messages via the university administration system "Canvas". Considering Croatian teachers from the master's in communication programme at the Catholic University of Croatia, they were contacted on their university emails that can be found on the Catholic University of Croatia website. Furthermore, the interviews were conducted in English or Croatian. All interviewees chose the language, the date and the time that suited them for the interviews. Regarding the interviews conducted in Croatian, they were translated and transcribed into English.

Lastly, according to Treadwell (2017), the researchers in qualitative research projects usually refer to the participants as Participants A, B, C, or Respondent A, B, C to ensure confidentiality.

In this sense, in the findings and interviewees' profiles, we replaced the ten names of students in Croatia with "CS#" and the ten names of students in Sweden with "SS#". Similarly, the five names of teachers in Croatia were replaced with "CT#", and the five names of teachers in Sweden were replaced with "ST#".

Table 1 - the profile of the communication teachers at the Catholic University

#	Previous teaching experience in online classes before COVID-19	Years of teaching experience at universities	Native language
CT 1	No	Nine years	Croatian
CT 2	No	Six years	Croatian
CT 3	No	Fifteen years	Croatian
CT 4	No	Fifteen years	Croatian
CT 5	No	Twelve years	Croatian

Table 2 - the profile of the communication master's students at the Catholic University

#	Previous experience in online education as a student before COVID-19	Knew classmates before the master's programme?	Native language
CS 1	No	Yes	Croatian

CS 2	No	Yes	Croatian
CS 3	No	Yes	Croatian
CS 4	No	Yes	Croatian
CS 5	No	Yes	Croatian
CS 6	No	Yes	Croatian
CS 7	Yes (language learning)	Yes	Croatian
CS 8	Yes (language learning)	Yes	Croatian
CS 9	No	Yes	Croatian
CS 10	Yes (language learning)	Yes	Croatian

Table 3 - the profile of the communication teachers at the University of Gothenburg

#	Previous teaching experience in online classes before COVID-19	Years of teaching experience at universities	Native language
ST 6	Yes	Seventeen years	Swedish
ST 7	Yes	Four years	English
ST 8	No	Two years	Spanish
ST 9	No	Three years	Dutch

ST 10	Yes	Eleven years	English
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Table 4 - the profile of the communication master's students at the University of Gothenburg

#	Previous experience in online education as a student before COVID-19	Knew classmates before the master's programme?	Native language
SS 11	No	No	Deutsch
SS 12	No	No	Dutch
SS 13	Yes	No	Swedish
SS 14	No	No	Portuguese
SS 15	No	No	Portuguese
SS 16	No	No	French
SS 17	No	No	Swedish
SS 18	No	No	Portuguese
SS 19	No	No	Mandarin
SS 20	No	No	Swedish

3.2.2. Semi-structured interview guide

To learn about students' and teachers' experiences of online classes during the COVID-19 pandemic, and because of the exploratory nature of the research question, we chose semi-structured interviews as a data collection method. According to Newcomer, Hatry and Wholey (2015) semi-structured interviews allow the researchers to ask open-ended questions to explore the participants' personal experiences and give the space, when required, for further clarification. Further, McCracken (1988) informs us that the investigators have to review relevant literature and retrieve guiding concepts to create an appropriate interview guide. In addition, McCracken (1988) explains that the interviews' guiding structure allows the investigators to focus on the information that the interviewees share and guarantee that all questions are covered. Further, during the interviews, the interviewers asked follow-up questions to deeply understand the students' and teachers' perceptions.

There are four interview guides for this study. The first interview guide includes the questions for the teachers from the two universities (see Appendix 1) and its Croatian translation in Appendix 2. The third interview guide contains the questions for the master students from both universities (see Appendix 3) and its Croatian translation in Appendix 4.

These four interview guides have, in the beginning, general questions to allow the interviewee to feel comfortable and give the space for an initial discussion (Esaiasson et al., 2012). After the general questions, the body of interview questions focuses on this study's main aspects, and there were few specific questions about each country's cultural context. Lastly, the ending with questions about the interviewees' future perspectives on digital/online education.

Furthermore, we conducted three pilot interviews to test the clarity and the quality of the questions in the interview guides. This step allowed us to adjust the interview questions after

receiving feedback from the three interviewees. Moreover, these three pilot interviews enabled us to acquire interviewing skills such as time-tracking and interview moderating skills (Bryman, 2012).

3.2.3. Validity

As previously mentioned, we chose students and teachers who have experienced online higher education during COVID-19. This was essential to ensure that all interviewees had the knowledge and experience to add valuable insights to our research. Moreover, according to Wray and Bloomer (2012) disclosing much information about the study can influence the participants' answers to interview questions. Therefore, all interviewees were informed only basic information about the research project before the interviews.

3.3. Data analysis

3.3.1. Thematic analysis

“One of the most common approaches to qualitative data analysis entails what is often referred to as thematic analysis” (Bryman, 2012, p.578). Thematic analysis has been used frequently in analysing qualitative data (Bryman, 2012) in different fields such as communication studies (Scharp & Sanders, 2019). Thus, in this study, we use thematic analysis as a method for our data analysis to observe discourse patterns and generate empirical findings. Further, it is more suitable for analysing interviews and interviewees' personal views. Additionally, we developed themes into categories after conducting all the planned interviews and during the data analysis process. Moreover, no further data added new insights to our

developed themes (Bryman, 2012). Therefore, we reached theoretical saturation (Bryman, 2012). The following subheadings explain our approach and our steps in the data analysis.

3.3.2. Transcription

Thirty interviews were conducted in this study. Seventeen interviews were conducted in English and thirteen interviews were conducted in Croatian. To ensure a high level of accuracy, we shared the recordings of the interviews conducted in English between us so that the first author transcribed six recordings, and then the second author revised them. After that, the second author transcribed the other eleven recordings and the first author revised them. Regarding the interviews that were conducted in Croatian, the first author was in charge of transcribing and translating them to English, and then the second author revised the translated transcripts. All transcriptions can be accessed through the links in Appendix 6.

In the next step, we read and re-read their transcripts and took notes to familiarise ourselves with data in a repetitive process. After becoming familiar with the transcripts and the notes, we exchanged them. Additionally, we had the opportunity to comment on each other's datasets. This process enabled us to move from a basic understanding of the data while transcribing the interviews to a more profound interpretation and analytic sensibility (Braun & Clarke, 2013).

3.3.3. Coding

In the coding process, we focused on the most appropriate content from the transcripts for answering our research questions. In addition, we took notions from the transcripts and attributed these notions to codes. Flick (2013) notes that coding is about labelling some parts

of the data into one concept. Also, coding is an effective method in qualitative content analysis with big data sets (Flick, 2013). Additionally, Braun and Clarke (2013) and Flick (2013) explain that the researcher has to put extra time and focus on the coding process because the number of the codes should be few and it cannot be relevant to code all data which the interviewee discussed and provided primarily when this data is not relevant to the research question.

According to Braun and Clarke (2013), coding can be fluid and organic; therefore, we coded the data in all transcripts individually. We took each transcript and discussed its codes until we agreed on seventy codes for teachers' and students' transcripts. However, the second revision of transcripts and codes which followed led to discarding the codes that seemed not to have value for our study and our research questions. As a result, we kept twenty-two codes for teachers and twenty-one codes for students (see Appendix 7). Lastly, after we finished organising the data into codes, we organised the codes into themes and this procedure is described as condensation (Brinkmann & Kvale, 2015).

3.3.4. Themes

The codes were categorised into themes and this categorisation includes recognising meaningful patterns based on the data we received to answer the research question. Braun & Clarke (2013) inform us that themes highlight essential parts of the data related to the research question. On some level, the themes represent patterned responses and significance within the dataset. Firstly, some themes were generated carefully in this study based on the existing literature, for example, the advantages and challenges of online education as well as the effects of online education on motivation. Secondly, we emerged and created other themes based on careful reflection and revision of the data. Braun & Clarke (2013) argue that

the researchers create themes according to their perceptions and experiences, which means different researchers might generate different themes using the same data. Further, inductive and deductive themes were generated. Bryman (2012) and Treadwell (2017) highlight that this mixture of inductive and deductive themes involves an ongoing comparison of data and themes. Also, this comparison we conducted enabled two-way flow analysis, allowing theme development and theme evolution to generate more apparent themes' categorisation (Bryman, 2012; Treadwell, 2017). Further, the final version of themes and codes can be found in Appendix 7.

3.4. Trustworthiness

3.4.1. Reliability

Researchers in qualitative studies understand that there cannot be a single correct answer to their research questions. Further, there can be different ways to utilise and create a meaning of the analysed data in the research (Braun & Clarke, 2013). Moreover, Braun and Clarke (2013) note that the aim of qualitative research is not replication, whether as a principle or as a criterion, to establish the quality of the research. In this sense, we chose the qualitative approach for our research and we are aware that the results of this study are meaningful and unique within the context in which it was conducted. Additionally, if different researchers want to replicate our study in the future, they might produce different results.

Furthermore, we are aware that we have an essential and active role in producing meaningful qualitative research results. In addition, we have been engaged actively with the interviewees to maximise our study's benefits (Braun & Clarke, 2013).

3.4.2. Validity of qualitative research

Measuring the validity of qualitative research can be challenging for researchers. Bryman (2012) explains that there has been a long debate between scholars about how the quality of qualitative research is measured. Therefore, the scholars suggested methods of measuring such as member checking and triangulation (Bryman, 2012); however, these methods consume much time, which cannot be applied to the time limitation of this research.

According to Yardley (2000) as cited in Bryman (2012) four criteria can be more suitable for measuring in our study. We decided to follow these four criteria (Yardley, 2000, as cited in Bryman, 2012, p. 393). The first criterion is sensitivity to the context of the social setting in which the research is conducted and the related theoretical and ethical issues. We were fully aware of this criterion while contacting our interviewees. Also, we were aware that we might approach sensitive topics and we assured confidentiality as stated in the letter of consent (see Appendix 3). The letter of consent shows how we handled the ethical issues because interviewees were informed of their rights before the interview and had to choose whether to participate or not.

In the second criterion, commitment and rigour, the researchers must be prepared to engage with the research subject during the data collection and analysis. In this sense, we reviewed different studies about online communication and online education then we wrote our literature review at the beginning of our research process. This step enabled us to acquire the essential knowledge to formulate our interview guides and findings.

The third criterion is transparency and coherence and to achieve it, the researchers must clarify and specify the research method using an articulated argument and a reflexive stance.

We, therefore, were transparent and discussed the reasoning behind the different choices we made, such as the research method in this study.

The fourth criterion focuses on the importance of having impact and significance for practitioners, theory and the community. In this regard, we chose to study a relevant and interesting topic that can bring new knowledge and significant insights to the academic community and practitioners.

3.5. Limitations of qualitative research

According to Bryman (2012) the main criticism of the qualitative research approach is that it lacks generalizability. Further, Bryman (2012) highlights that the qualitative research approach provides detailed data about a particular case and is not generalisable. However, the research's findings are generalisable to the theory and not the population (Bryman,2012). Moreover, we as researchers must be aware that the specific participants in the qualitative research must be selected wisely because that can affect the study's findings (Alshenqeeti, 2014).

3.6. Ethical considerations

Before the semi-structured interviews, all interviewees in this study were asked to digitally sign the consent form (see Appendix 5). We used the digital signature website "DigiSigner" to send the consent form file to our interviewees so they could read and sign it online.

The interviewees were aware that the interviews would be video and audio recorded for academic purposes only. They were informed briefly about the research project's aim in the consent form. Besides, they were aware that semi-structured interviews are the method used

for data collection and the approximate duration of the interview would be thirty to forty minutes. Moreover, we highlighted to the interviewees that the video and audio recordings would be stored safely until the end of transcribing all interviews. Then, we would delete all videos and recordings (Treadwell, 2017). Also, the interviewees knew that their participation was entirely voluntary and they had the right to refuse to answer any question without any further explanation. Furthermore, we ensured confidentiality of the interviewees' personal information and would not be disclosed in the final paper.

In terms of research reflexivity, we must have reflexive and self-critical thinking during the research process (Bryman, 2012). We know that being students in master's programmes in communication at University of Gothenburg may influence data collection, data analysis and findings. Therefore, we positioned ourselves as neutral researchers as much as possible by, for example, letting our interviewees freely express themselves without influence, such as power relations and potential bias (Alshenqeeti, 2014).

4. Findings

In this chapter, we present the themes that were generated upon the data analysis and coding process. Since the main purpose of this study is to compare teachers' and students' perceptions of online education in two different countries and universities, we created two categories of findings: teachers and students. First category consists of teachers in both countries and the second category consists of students in both countries. We found and created five common themes for teachers - *Advantages of online education*, *Challenges of online education*, *Perception of online lectures*, *Perception of communication and students' participation in online education*, and *Effects of online education on motivation and well-being*. Additionally, we identified two specific themes (each for one group of teachers) that emerged because of different educational contexts - *The organisation of online exams* (for teachers in Croatia) and *Multicultural online classes* (for teachers in Sweden). Similarly, five common themes are detected for students in Croatia and Sweden - *Advantages of online education*, *Challenges of online education*, *Learning in the online environment*, *Communication in online education* and *Effects of online education on motivation, productivity and well-being*. Moreover, the transcripts' analysis revealed an additional theme that emerged in the context of students in Sweden, which is - *The influence of multicultural classrooms*.

4.1. Teachers' perceptions of online education in Croatia and Sweden during COVID-19

Based on the two teachers' profiles (Tables 1 and 3), the Catholic University in Croatia has limited diversity, as the native language of the teachers and the working language for the

communication programme is Croatian. Teachers have long-term teaching experience; however, they never experienced online teaching before COVID-19. While teachers at University of Gothenburg share the lingering teaching experience with their counterparts in Croatia, they differ from teachers in Croatia because they have different native languages and three of them got exposed to limited online teaching before COVID-19.

Additionally, the teachers indicated that neither of these two universities was entirely prepared for online education and that online teaching was not a commonly implemented method before COVID-19. In the following, we present teachers' perceptions in Croatia and Sweden and as previously mentioned, we use CT for teachers in Croatia and ST for teachers in Sweden.

4.1.1. Advantages of online education

Teachers in Croatia counted very few positive aspects or advantages of online education. Hence, CT2 and CT3 agreed that online education was beneficial in cases such as a pandemic, when teachers were sick or when lectures had to be held during the COVID-19 pandemic lockdown. Further, CT2 found online teaching easier because she could check the screen immediately since she was in front of it. Moreover, two teachers noted that online classes were more suitable for some students, especially introverted ones, because in online classes: "their interaction was better" (CT 2). In addition, CT1 stated that online teaching helped her improve her professional development in using digital platforms.

Similarly, some teachers in Sweden mentioned that online education had benefits such as accessibility and flexibility because lectures can be conducted from wherever. Hence, they expressed that online teaching enabled connecting with students from all around the world.

Moreover, teachers were able to make use of digital multimodalities, such as video, chat-function, Mentimeter and others. Additionally, ST10 highlighted that online teaching allowed him and his colleagues to obtain new knowledge as communication scholars and teachers.

We are all feeling via experiential learning here that the nonverbal is has its place and has special things attached to it that are hard to replicate in a digital format. Of course, though, we also learn the effects of the digital, sort of how collaborative tools, perhaps get us out of some of these problems and focus on the interactive, so that maybe sort of flipped classroom model works a bit better on some digital format. So, in some sense, it is a very valuable experiment or test for us as communication scholars. (ST10)

4.1.2. Challenges of online education

Interviewed teachers in Croatia mainly focused on the negative aspects of online teaching. Namely, they stated issues such as the lack of communication and feedback. They expressed that it is hard when they cannot see their students and that: “reactions are very late” (CT4). Similarly, the interviewed teachers in Sweden noted that direct communication and feedback with students in online classes were challenging.

In a physical classroom, I can look at you, for example, and see, do you understand what I mean? Are you interested in what I'm talking about? That type of feedback is different and challenging in the online format. (ST6)

Furthermore, all teachers in Croatia mentioned that it was harder to transfer the knowledge in online education, which thus resulted in lower grades: “the quality of teaching suffered

greatly, which was shown by the results of their colloquia¹ and exams” (CT5). In contrast, four out of five teachers in Sweden stated that they could easily transfer the knowledge to their students in online classes. As a reason, they stated that everything was easily accessible and available to students through lectures and the teaching platform Canvas.

However, only one teacher (ST8) in Sweden agreed with all teachers from Croatia, mentioning that teaching and transferring knowledge in a physical classroom would be more efficient than in online classes.

Altogether, teachers in Croatia agreed that physical teaching is better because, according to CT1, living words and information are irreplaceable. Hence, teachers expressed their preferences for physical classes or even hybrid classes because: “we will all have to adapt to everything where the world is going now” (CT2). Likewise, three teachers in Sweden argued they preferred the physical classroom more than the online classroom.

I prefer a physical classroom because when you're in the classroom, you can feel the feedback of the students, and the discussions are much easier to be facilitated. You can get much more information from the students and they also get a lot more information from you and from their classmates than when you are in an online situation where the interactions are much more limited. (ST8)

Moreover, several teachers in Croatia and Sweden mentioned that they also see advantages of possible hybrid classrooms.

¹ Authors' note -“Kolokvij” in Croatian - written test for students which later, together with seminar presentation and exam contributes to the final grade of a student

4.1.3. Preparation of online lectures

Concerning teachers' preparation for online lectures, CT2 mentioned that it was similar to preparation for physical lectures since she always had to prepare to talk about the topic. However, four out of five teachers in Croatia mentioned that they adapted their presentations and approaches of lecturing in the online format. The main strategy for adapting their lectures was including more multimedia content such as links and videos, which then helped in keeping students interested and encouraged them to interact. Similarly, three teachers in Sweden explained that students in online lectures could easily be distracted; therefore, they needed to prepare online lectures with more engaging and interactive activities compared to physical lectures. Furthermore, ST10 explained that his strategy to keep the interest in online classes high was to prepare pre-class lectures so the live online lectures could include interactive parts:

I am trying not to have long live sessions. I'm trying to focus as much as possible on putting the sort of interactive content. So if I'm thinking about a class [...] in the sessions on Zoom, I try to make things as much interactive as possible. And the pre-class lecture has theoretical content. (ST10)

Nevertheless, four out of five teachers in Sweden expressed that online teaching requires different preparation and structure. Since it was a different setting with absent factors like the interaction of the students, planning was crucial to cover all possible themes which the students might not get engaged to raise. Thus, two teachers emphasised the importance of structural planning of the lectures, one of them saying:

I mean, one thing that I really learned is that if you teach a lecture online, you need to prepare it in much more detail [...] And I noticed that when you give an online class, you can't improvise that much because it will be chaos. (ST9)

4.1.4. Perception of communication and students' participation in online classes

Even though classes were not physical, all five teachers in Croatia reported that miscommunication or misunderstanding never happened in online lectures, mostly because they prevented it with additional clarification or consultations. For instance, CT1 and CT3 stated that they were always available to students to solve their doubts: "Consultations were also available to students through Teams, so we had those individual meetings as well" (CT 1). However, CT3 emphasised that she gave her students too many options to contact her whenever they wanted, which made her even too available for students. Even though teachers expressed that communication with students is different because of lacking non-verbal cues, some teachers perceived online lectures as more relaxed. Moreover, teachers attributed the shift in communication not only to the switch from physical to online classes but also to the impacts of the COVID-19 pandemic and the earthquake in Zagreb, the capital of Croatia [March 2020]:

That is, we as teachers and students somehow, I will not say connected, but we created some communication that was a little freer. Because people were sick, they had some problems, and then because of the earthquake that happened in Zagreb. (CT3)

Besides, CT1 explained that while communicating via chat during online lectures, students expressed their emotions with emojis and Graphics Interchange Format (GIF) that the chat offers which made the whole interaction more relaxed. For this reason, she also used emojis in her textual communication with students. Unlike others, CT4 perceived online communication with her students to be poorer.

On the other hand, some of the teachers in Sweden reflected on communication in online classes compared to one in physical ones. The teachers noted they were not completely relaxed while communicating in online classes. Moreover, ST6 highlighted that he would be more selective in his informal communication approaches in the online classes.

I think I am probably selecting the type of jokes I would do online compared to the classroom, even if I don't know if everything I'm saying in the classroom is recorded because I don't. But online, I know it is recorded. So some really poor Gothenburg humour, I would probably try to avoid it. (ST6)

Although teachers were not completely relaxed, ST8 described the online communication between students and teachers as respectful as in physical classes. Regarding students' interaction and participation in online classes, all teachers agreed that it was reduced compared to the one in a physical classroom.

Moreover, CT2 and CT4 agreed that participating in online discussions suited some students more than in a physical classroom due to their personality traits. Thus, they stated that some students were encouraged to speak more because they were not in the physical classroom and the looks of their classmates were not on them. Further, CT2 concluded that: "In online teaching, as far communication is concerned, in this format, one can read which form of communication suits which student." Similarly, most teachers in Sweden shared their

concerns about students' interaction and participation during online classes, which students' personalities could drive. One teacher indicated the disparity between students:

I think students who are not very much engaged in the classroom can be engaged when we are using online. But perhaps the students who like to be in the classroom are really fed up with online studies or remote studies. (ST6)

Additionally, some teachers noted that students were easily distracted during online classes, which consequently impacted students' engagement in lectures. However, one teacher in Sweden said that participation: "went better than expected" (ST9).

4.1.5. Effects of online education on motivation and well-being

Teachers were asked to describe how lecturing online and thus "speaking to a screen" affected their motivation for lecturing and their general well-being. In Croatia, four out of five teachers expressed negative feelings towards online lecturing by using adjectives such as "weird", "catastrophic", "burden", "disaster", "lonely", and "necessary evil". In addition, teachers claimed that students not turning their cameras on was a common issue which made their lecturing even more difficult. Thus, two teachers mentioned that they had no feeling of real lecturing during online classes: "I just get the impression that when I give online classes I'm on the radio" (CT2), while CT3 mentioned that in the online format "you reduce education to an audio book". Furthermore, the fact that interaction with students was reduced, online lecturing made some teachers feel lonely (CT4) and some of them out of their minds:

You really feel like you're out of your mind after 4 hours of talking to the computer. It's like talking to yourself. It was pretty bad and frustrating for me. (CT3)

CT5 added that the biggest drawback of talking to a screen was the lack of feedback. Speaking to a screen also impacted teachers' motivation for lecturing. Four of them felt demotivated because of various challenges that online lectures caused, mostly because of reduced interpersonal communication with students.

In Sweden, the absence of physical interaction deprived most teachers of motivation and enthusiasm for holding online lectures. Moreover, teachers noted that the fact that they do not get dressed and just sit in front of a computer also contributed to the reduction in their motivation. Additionally, most teachers explained that they felt unmotivated and sometimes annoyed when students turned off their cameras during online classes. Besides, the teachers noted that turning off the cameras endorsed their sense of alienation. Further, not having cameras on was a sign of disinterest and disengagement from the students' side for some teachers. In addition, one teacher in Sweden emphasised that he experienced anxiety and unrest:

If I don't have any students with their camera on and I cannot see their faces, I would get quite nervous, then I feel like I'm alone. And I feel like I cannot talk.
(ST8)

However, ST6 expressed that he had a positive experience with online education and he was not affected by students turning off their cameras.

I find it very inspiring, very inspiring because before I got, I mean, [...] I find inspiration to do digital or online or remote [...] So even in your own pace, and that is really opening up lots of new challenges or perspectives. (ST6)

Concerning well-being, interviewed teachers in both countries, mentioned that online teaching made them feel isolated. Moreover, a lack of personal interaction and engagement

made the teaching process challenging for some teachers, who sometimes felt negatively about giving lectures online.

4.1.6. Specific contexts

As already mentioned, interviews revealed differing themes among teachers in Croatia and Sweden. Namely, these themes are connected to the educational system in each country. Thus, problems with online exams occurred to be significant concerns among teachers in Croatia, while teaching in multicultural online classes was discussed among teachers in Sweden.

4.1.6.1. The organisation of online exams

None of the five teachers mentioned any information about online exams in Sweden. However, they noted that they assessed their students with individual and group assignments. Dissimilar to Sweden, all the five teachers in Croatia found it challenging to conduct online written colloquia and exams.

They stated that the main reason was the inability to prevent students from cheating since they could consult their colleagues, literature, and the internet. Due to this issue, teachers came up with different solutions:

The students couldn't help each others or look in each others exams to search for answers because I made six different groups [...] that was how I managed to control them. (CT3)

Apart from that, teachers in Croatia tried to control examinations by giving limited time to write exams or do open-book exams, requiring a deeper and more critical understanding of the material.

4.1.6.2. Multicultural online classes

Unlike the Croatian master's programmes, most of the master's programmes in Sweden have international students with English as a teaching language. In this sense, the interviewed teachers mentioned that they noticed there could be language barriers in their online classes. They tried to handle these language barriers when they occurred. ST9 indicated: "I try to be sensitive to language if you notice that people are not as comfortable in English, that you try to rephrase things, or you tried to phrase things in different ways". Moreover, ST10 reflected on the dynamics between students, which usually encouraged them to jump in the class and ask for more elaboration for arguments and materials they study, which were likely absent in online learning, so they became hesitant to raise their insights, inquiries, doubts and disagreement.

4.2. Master students' perceptions of online education in Croatia and Sweden during COVID-19

As stated in the students' profiles (Tables 2 and 4), students in the Catholic University of Croatia had already known each other before their master's programme started. They have Croatian as their native language. Moreover, seven out of ten interviewed students had never experienced online education before the COVID-19 began and the other three students

experienced online education in language learning. On the other hand, students at University of Gothenburg did not know each other before their master's programme started. They are from different countries and they have different native languages. Additionally, nine of them had never experienced online education before COVID-19.

4.2.1. Advantages of online education

To get to know students' opinions of online learning, they were asked to outline its benefits. We found five advantages that students named - flexibility, time-saving, financial relief, suitability for introverted students and comfort. The first common advantage is flexibility, which is especially highlighted among students in Sweden:

I don't even have to be in Sweden to attend this programme that I am doing [...] that's a benefit [...] being able to, to attend the school in a pandemic (SS20).

Secondly, students in both countries outlined time-saving as an important advantage of online education. As a third most important advantage, students in both countries highlighted financial relief since they did not have to spend money on travel or accommodation. Furthermore, as a fourth common benefit of online education, students stated that it was suitable for introverted students. After all, they could express themselves easier because they did not feel they were talking to everyone but only to screen. Likewise, one student in Sweden said that online classes enabled introverted students to communicate via chat which thus makes them "...more inclusive" (SS12) than in physical classes. Lastly, students in both countries agreed that online education is more relaxed and comfortable since classes are followed from the comfort of their homes.

However, students in these two countries highlighted a few different advantages of online learning. Thus, students in Croatia outlined that online education is favourable for students who are working part-time or students' jobs: "Possibly if you're doing some student job [...], Each boss will allow you to leave work for an hour and a half and be at a lecture" (CS4). Another advantage mentioned by two students in Croatia was the possibility of taking notes on their computer while listening to lectures rather than doing it manually with pen and paper as they would do in physical classes. Further, as an advantage, two students stated that it was easier to pass the exams since exams were facilitated or students could cheat more easily by accessing books or online sources.

Conversely, students in Sweden mentioned that online education was advantageous for dedicating their phase to studying rhythm, which was possible because: "...they usually record the lecture. So, you can like, watch them back" (SS11).

4.2.2. Challenges of online education

Besides advantages, students in both countries discussed the challenges or drawbacks of online education. Students in Sweden and Croatia had the same opinions about the challenges of online education. For instance, students highlighted issues with the lack of social interaction and decreased communication, particularly affecting students in Sweden.

Like not socialising with people. So not getting to know the colleagues, not getting to know the teachers. You don't have so much of I felt I didn't have so much kind of like let's say social support, so I didn't make many friends. (SS15)

Moreover, students complained that online classes made it difficult to participate in the discussion because: "it all comes down to one-way communication" (CS4). In addition to that,

students in Sweden attributed this issue to challenges in mastering turn-taking in an online environment.

A second common drawback of online education students mentioned was the possible health hazards that watching the screen too much can cause. Moreover, some of them felt “like a zombie” (CS8). Besides that, some students in Sweden stated that it could badly impact their health because: “they do not move that much” (SS18).

Lastly, students in both countries agreed that one of the drawbacks of online learning was issues with technology, mostly connected to a bad and unstable internet connection.

In addition, even though participants mentioned that online education has its advantages, six questioned students from Croatia expressed a preference for physical classes. As a possible reason, students said that they had not perceived online classes as actual classes but rather as something optional. One of the students said: “in live teaching, you are surrounded by people and you have the feeling that you are studying, not that you are in some random course, as I felt in online lectures” (CS2). Another student supported this claim, saying that she and her friends treated online classes as a “live podcast” (CS7).

Concerning students in Sweden, they had similar opinions to students in Croatia. Namely, none of them expressed their preferences towards online education but rather towards physical or even hybrid mode of learning.

4.2.3. Learning in the online environment

Changes in learning and understanding the course materials were discussed with interviewees, who expressed their views. Considering that, students in both countries are concordant about one thing. Remarkably, they acknowledged that they faced issues

concentrating and being focused on the lectures. Namely, interviewed students stated that they would pay less attention because they could be easily distracted by other things, which made them lose interest in the lecture and bored them. Moreover, students stated that this could happen because of the lack of supervision “No one was saying okay, now you have to focus now” (SS19). Similarly, one student in Croatia said “they didn't demand it of us. If they demanded more, I would work harder. I did as much as they asked of us” (CS1).

Furthermore, students mentioned that for them, it was easier to focus on classes in the physical classroom when their classmates surrounded them which then motivated them to follow the lecture. Additionally, students said that the lecture structure and teachers’ presentation of materials were also essential factors in keeping their concentration:

There is the monotonous intonation of them and the constant enumeration of raw information. And because of that, it was hard for me to maintain concentration. (CS4)

Several students in Croatia and Sweden reflected on their gained knowledge during online classes. Namely, they stressed that they lost some knowledge or would gain more knowledge if classes were in the physical classroom. This is, as some of them explained, if classes were physical, they “would have met each other at the library studying and discussing in a whole different way than we did now” (SS13).

Additionally, one student in Croatia reflected on her studying habits saying:

I don’t know how to learn anymore. Literally, I just read the scripts and nothing can stay in my head, I can’t memorise. Um, I don’t print scripts, I read everything from a laptop, so I can’t even underline what’s important to me, and then it’s

much harder for me to learn and memories right away [...] But it's a lot harder for me to learn via computer and read it all. (CS5)

Conversely, some of the students in Croatia and Sweden found online learning more convenient because, as one student in Sweden explained: "the task has been more informative and easy to understand" (SS17). Besides, students mentioned that because teachers were giving them written assignments in online education, most students developed their analytical and critical writing skills. Similarly, two students in Croatia said that online education suited their learning habits better because it encouraged their desire to learn.

Lastly, a few students in both countries did not notice any changes in their learning habits and understanding of the material in online classes versus physical classes.

4.2.4. Communication in online education

Communication in an online educational environment was one of the most discussed topics with interviewees. Participants were asked to reflect on communication with their teachers and classmates. In both countries, almost all interviewed students mentioned that communication with teachers was more relaxed and sometimes informal because in contrast to physical classes: "the professors checked how we were and so on" (CS9). Likewise, one student in Sweden said:

I felt that most of the teachers were very open, telling us that you can always ask questions, just send us an email. Stop us after class, if we have time, we can talk about those kinds of things. (SS13)

Further, several students in both countries mentioned that communication with teachers was easy-going. They claimed that the reason for that was teachers' understanding of the situation they all found themselves in.

Along with that, some participants in both countries noted that communication with teachers took place mainly in written format via emails or sometimes via chat from the students' side, and teachers would reply via the microphone in the meeting. Moreover, students in Croatia added that they would send emojis and GIFs to express their feelings, and teachers would respond in the same way: "So the communication is much more relaxed, which actually suited us students" (CS1).

Conversely, several students both in Croatia and Sweden found it challenging to communicate with teachers online because, as some of them explained, they had to be more prepared for what they wanted to ask. Moreover, some students had issues with turn-taking:

People often don't talk because they don't feel like they are addressed or because they don't know if someone else speaks and then sometimes you have these really long silences because no one wants to speak. (SS11)

Another issue while communicating was because they were lacking non-verbal cues.

Moreover, CT4 criticised communication with teachers, saying it was mainly one-sided because teachers focused only on giving lectures and did not include students in the discussion.

Furthermore, as already mentioned, while communicating with teachers, students in Sweden also agreed that in communication with their colleagues, they lacked non-verbal cues and facial expressions, thus reducing communication effectiveness in online classes. Further, they noted that interaction with their classmates was reduced mainly to the one in breakout rooms.

On the other hand, students in Croatia knew each other from before. Still, they noted that communication was reduced because they could not meet in person to study together or discuss matters related to the university and everyday life. Moreover, two of them pointed out that the personal aspect of communication with classmates was missing because they did not talk about everyday life.

4.2.5. Effects of online education on motivation, productivity and well-being

Respondents' answers from both countries showed that most of them felt their motivation and productivity decreased. This phenomenon they attributed to various factors. For instance, students highlighted that their motivation and productivity decreased because of reasons such as sitting in the same place for a long time, screen fatigue and lack of social interactions. Moreover, students in Croatia expressed that their productivity decreased because, as one student mentioned: "When classes are online, I have a feeling I don't have to do anything [...]" (CS2).

Further, online classes contributed to making students lazier. Similarly, two students in Sweden noted that online classes made them lazier either because they had not been motivated by other students' attitudes since they were not in touch with them, or they did not have to attend lectures since they were also recorded.

In contrast, SS17 and CS6 felt even more motivated in online lectures than in the physical classroom. Students in both countries agreed that this is due to the possibility to manage their studies at the pace they wanted: "I would consider myself being more motivated and productive because I can manage my own way of studying and be flexible" (SS17). Likewise, a

student in Croatia highlighted: “It has grown very much and I have just entered a mood, I am now going to study and adopt all the knowledge of the world” (CS6).

However, SS20 and CS4 stated that online lectures did not impact their productivity, which was the same as in physical classes.

In terms of well-being, all students in Sweden highlighted that online education and being at home have affected them badly and that led them to be stressed:

I think that really affected the mental health in this being in the same room all the time and not getting out and then this missing social context which you just naturally have when you are in the classroom and people. (SS11)

In addition, some students noted that the many hours of Zoom lectures made them tired, especially when these online lectures lacked engaging activities. Correspondingly, one student in Croatia mentioned: “I generally felt more mentally exhausted after classes than I usually would be” (CS8).

Interestingly, three students in the Swedish university informed us that they had felt loneliness and anxiety during their online education experience. Those feelings occurred because they were alone and could not see their classmates with whom they would usually share struggles connected to studying.

On the other hand, it was not recorded that students in Croatia felt anxious or depressed. Moreover, one student said: “I was okay. I was at home and found a hobby. I didn't get depressed or anything” (CS5).

4.2.6. Specific context

Similarly, as with teachers' interviews, we discovered one specific theme for students in Sweden. Hence, students in Sweden reflected on their communication with their classmates from different backgrounds.

4.2.6.1. Influence of multicultural online classrooms on students in Sweden

The interviewed students discussed how they experienced communicating in a different language than their native one, attending the online classes and working on group assignments online with other students from different countries and cultures. Firstly, almost every participant stated that communication in English went smoothly. However, two participants expressed that English being their non-native language, affected their communication. One of them stated: "but it was harder to express myself. Sometimes I like I lost the timing, or sometimes I didn't feel confident" (SS14). Secondly, even though they did not know each other before, students noted that they managed to establish relationships with their classmates. However, one interviewee outlined:

It's not as easy to interact spontaneously. And maybe there might be a bigger threshold to randomly reach out to someone to teams or WhatsApp or Facebook. Yes, randomly, that might be a harder step to make, instead of just walking up to someone after the class. Indeed, I mean, the in-person class that's more easy and more easy-going, and more chill [...]. (SS20)

In addition, students highlighted that they could increase their knowledge about different cultures in their multicultural online classes and improve their creativity, primarily when they worked on group assignments.

I believe it is exciting to work on assignments with groups from different cultures, even if we do it online because I can learn more from my classmates and increase my knowledge and creativity. (SS15)

On the other hand, one student mentioned that it could be challenging being in multicultural online classes because some students have different perceptions of being on time and meeting assignments' deadlines which can cause misunderstandings.

5. Discussion

Our comparative research aimed to examine and find similarities and differences between university teachers' and students' perceptions of online education during COVID-19 in two contexts - Sweden and Croatia. To answer our research question, we used semi-structured interviews. After analysing the data, we found that in both context students and teachers displayed most similar perceptions towards benefits of online education as well as they highlighted issues with communication in online classes. However, we found out that teachers' perceptions differ mostly in approach towards online lectures while there are not many differences in students' perceptions from both universities. Moreover, three specific themes emerged from analysed data. Thus, this will, according to Doolan et al. (2012) provide a better understanding of Swedish and Croatian higher education systems. Therefore, in the discussion section, we aim to elaborate on how these results can be applied in academia and in general and, based on that, we will outline preliminary conclusions and suggestions for further research.

5.1. Teachers in Croatia and Sweden

Several benefits and challenges of online education were identified consistent with previous research (e.g., Nambiar, 2020). For instance, similar to Nambiar's (2020) study, our research reveals teachers' (in both countries) preferences toward traditional education. Moreover, considering the advantages of online teaching, such as flexibility and accessibility, some teachers in both countries mentioned hybrid teaching as a preferred and possible solution for a future educational system. Perhaps, the explanation for teachers' open and acceptable

approach towards online and hybrid education in Sweden lies in the fact that they were teaching an international programme and thus, having classes online enabled them to teach undisturbed during the lockdown. Interestingly, the findings also indicate a disparity between two samples that could be traced between the two contexts that might be attributed to different founding circumstances, such as diversity and technological steadiness, which worked in favour for teaching staff of University of Gothenburg.

Consequently, this fact impacted the pace of adaptation to online education in each university. Namely, most teachers in the Swedish sample widely acknowledged the benefits of online education compared to their counterparts in Croatia. The latter were more occupied with the cons of online teaching experience, such as a lack of feedback, communication and difficulties with transferring knowledge. Hence, online education experience proved to be a disputable issue among our interlocutors. The analysis shows the reason for teachers' dissatisfaction with online education in Croatia has its foundation in the fact that they have never encountered it before. This relates to what is stated in Bagaric et al. (2021) study, suggesting that before the coronavirus pandemic, online education in Croatia was considered only as a type of supplement to traditional education and not a "real education". Moreover, because there were no elaborate strategies for conducting online classes and examples of good practice that educational stakeholders could follow, the level of their readiness was different (Bagaric et al., 2021). Furthermore, the reason for the lack of experience in online teaching in Croatia is that its higher education's digital maturity is still at an unsatisfactory level because of "the lack of digital teaching infrastructure, digital teaching tools and empowerment of teachers to teach in the digital environment, which prevents effective Higher Education in Croatia" (Župan, 2022, p.11). Therefore, it could be argued that a best

practice is to create systematic guidelines and methodology for online education, implement examples and create a short course about online teaching for teachers to be able to get to know and learn to master online educational platforms.

Another interesting finding was that teachers in Croatia found transferring knowledge challenging, unlike teachers in Sweden, who found it easy. This can be because of, as previously mentioned, the structure of online classes and exams in these two countries. Namely, because exams in Croatia are mostly designed to test theoretical knowledge and knowledge of definitions by heart, sometimes students' grades were lower due to teachers' various measurements in preventing cheating during online exams. Strategically speaking, teachers in Croatia could perhaps look up to teachers' approach to online exams in Sweden and create a way to test students' understanding which can be shown through their practical work in essays or other forms such as group works. Given that this change in testing students' knowledge probably cannot come directly from teachers but rather from the institutional level, such as the government and Ministry of education in Croatia, we suggest they consider Sweden's approach.

Concerning communication with students, the results from our study show that teachers in both countries agreed that it decreased, which confirms the findings of other studies (e.g., Joshi et al., 2020 and Moorhouse & Kohnke, 2021). Hence, teachers in our studies attributed it to various reasons, such as a lack of non-verbal cues or students' unwillingness to participate. Even though online communication has its benefits, such as being fast and synchronous, it is also vulnerable in terms of technical issues. Thus, this can affect an overall understanding which then influences students' willingness to participate. Therefore, to address these issues, we suggest that teachers can include more interactive aspects in their

online lectures, for instance, quizzes. Moreover, the usage of emojis can improve the lack of nonverbal messages because “The use of nonverbal messages along with verbal messages is one of the factors that help capture the attention of students and increases the clarity of the verbal message” (Abunamira, 2006 as cited in Al-Zou’bi & Shamma, 2021, p. 203).

Furthermore, two trends of teachers' perception of online communication with students emerged. Firstly, teachers in Croatia indicated that communication became more relaxed, which they attributed to various aspects, one of them being a written form of communication in which students expressed their feeling through emojis and GIFs. Consequently, some teachers responded in the same way by using emojis. It can be argued that the demerit of interpersonal cues and vulnerability of online communication due to bad internet connection and issues with turn-taking caused a more relaxed expression and communication via chat where both teachers and students used emojis. Thus, this is in agreement with Bliss-Carroll (2016) research, stating that emojis enable users “to emphasise and enhance messages in a way that text alone simply cannot do” (p.6).

Secondly, teachers in Sweden did not share the same thoughts on relaxation generated by online communication. Also, some of them were careful with using humour or making interaction too informal. However, as observed in the Croatian context, using emojis in communicating via chat can foster communication and make it more comfortable for both parties. Moreover, emojis can make the online class more interesting because teachers can make activities seem more engaging, which can help students understand the aim of the online class (Sun, Lavoué, Aritajati, Tabard & Rosson, 2019).

Further, similarly as teachers in Croatia mentioned, teachers in Sweden noted that some students were encouraged to speak more in online classes than in physical ones because of

their introverted personalities. Therefore, by extension, this would indirectly add value to investigating the connection between personality traits and participation in online class discussions.

Considering the effects of online education on motivation and well-being, a significant agreement appeared on this theme in both universities, as the majority had negative feelings towards online lecturing. Similarly, to Moorhouse and Kohnke's (2021) study where they discovered that teachers were frustrated with students not turning their cameras on, teachers in our research stated that students who turned the camera off made lecturing more challenging. Moreover, lack of interaction and students' feedback urged the teachers to feel lonely, exhausted and unmotivated, which is touched upon in the literature review (Moorhouse & Kohnke, 2021). Consequently, the teaching process was challenging as it led them to feel pessimistic about giving lectures online. Additionally, we believe that raising awareness among students about the negative impacts of their unwillingness to turn their cameras on can improve cooperation and the quality of online studying. Hence, teachers' open communication about their discomfort with speaking to a screen without seeing their students can lead to a successful resolution of this issue.

Lastly, we found two differing themes, the first is about organising online exams in the Croatian context, and the second is about multicultural classrooms in the Swedish context. Namely, we discovered that all five teachers in Croatia found it challenging to conduct online written colloquia and exams. As a reason, they stated an inability to control students while writing exams because there was no chance to prevent students from cheating since they could consult their colleagues, literature, and the internet. Thus, teachers considered students' grades in online education less relevant than ones in physical education. This issue

reveals the unpreparedness of the Croatian higher education system for conducting exams in the online format. Hence, based on these findings, we suggest raising awareness and further exploring the possibilities related to this regard. Moreover, we believe that developing concrete guidelines to overcome this obstacle can help improve all higher education systems which face this problem during remote education.

Unlike Croatian teachers, teachers in Sweden reflected on lecturing multicultural online classes. It is safe to say that since teachers already had experience with the multicultural class due to the international master's programme, they did not face many challenges. However, some of the teachers mentioned language barriers as a potential but not unsolvable issue.

5.2. Students in Croatia and Sweden

Recognized advantages of online education among students in Sweden and Croatia are mainly in line with previous literature on that topic. As well as Appana (2008) and Kim et al. (2005) reported, our findings show that the most common advantages of online education are time-saving, flexibility, and convenience as they attend classes from their homes.

Moreover, some students argued that the online learning environment is more suitable for introverted students. This claim agrees with teachers' observations from both countries and previous research on this topic (e.g., Harrington & Loffredo, 2010 and Al-Nofaie, 2020). Namely, in their study about the relationship between personality types and preferences for online versus traditional classes, Harrington and Loffredo (2010) discovered that most introverted students preferred online classes. Similarly, Al-Nofaie's (2020) research discovered that the online learning environment enabled shy students to express their opinions more easily through discussion forums. This relates to what we found in our study,

where students who perceived themselves as introverts stated that they could express themselves more easily in online classes. Therefore, it could be argued that adopting online classes with their various tools (e.g., discussion forums, pre-recorded lectures) for class interaction can be beneficial for the inclusion of introverted students. Perhaps, having hybrid classes where students can choose whether to attend a physical or online classroom is a small step forward to the overall inclusion of all students' personality types in education. However, further research on this issue is still needed.

Interestingly, students in Sweden highlighted that recorded lectures enabled them to dictate the studying rhythm, which they perceived as a huge benefit. Thus, in our opinion, this can be a valuable idea for teachers in Croatia to improve their online lectures by providing students with recorded lectures.

Based on the findings among students in Croatia, online learning appeared to be favourable for students who are working part-time or students' jobs. This implies that since lectures are obligatory at the Catholic University of Croatia, having them online-enabled students to work beside the classes so they could either gain some practical knowledge or earn money. Also, students referred to the matter of pace where they have the chance to take notes on their laptops while listening to lectures rather than doing it manually. Perhaps, the importance of this finding can be found in the fact that at most universities in Croatia, students are still taking notes with pen and paper instead of a more contemporary approach where students can take notes on their laptops. This again can be connected to Croatians' digital underdevelopment in higher education and its restraint to modern education standards (Župan, 2022).

Furthermore, some students pointed out opportunities such as cheating and access to educational materials during exams. Obviously, teachers were aware of these actions, which

contributed to their frustration with online classes. The reason for this approach to exams is probably based on the already mentioned attitude towards online education not being perceived as “real” (Bagaric et al., 2021). To avoid such cases, the higher education system should create a transparency-based approach that both teachers and students will follow. That said, findings from a Swedish side disclosed that students appreciate essays as a form of checking their knowledge because this way, they can develop their critical thinking and writing skills. Besides, essays are students’ unique products and this approach can prevent their attempts to cheat in exams.

Concerning challenges, students in Sweden and Croatia shared similar opinions. As well as Kim et al. 's (2005) findings, our results showed that students perceived a lack of social interaction and decreased communication as a limitation of online education. Moreover, students in Sweden did not know their classmates before their master’s programme started, which made communication even more difficult. Namely, Paige and Vande Berg (2012) argued that students establish relationships through language and culture, which was denied to students in Sweden. Further, students in both countries agreed that one of the drawbacks of online learning were technology issues, as they mostly connected to a bad and unstable internet connection. This is in line with other studies (Barzani & Jamil, 2021; Akuratiya & Meddage, 2020) that spotted the same issues. Lastly, it was also found that following online lectures can impact students’ health, which was initially ruined by too long screen hours and a lack of physical activity.

Thus, similarly to the teacher’s case, our findings discovered that students in both countries preferred physical classes over the online ones. Besides preferences for physical classes, the majority of the students in Sweden thought that implementing hybrid classes would be the

best approach. A possible explanation for this may be that students acknowledge the benefits that online classes provide - such as no need for commuting. Nevertheless, they are driven by the advantages of physical classes, such as better interpersonal communication and a learning environment.

Another focus of attention in the findings was learning in the online environment. Students in Croatia and Sweden noted that they encountered focus issues during their online classes. Participants stated they were easily distracted by various things (e.g., their phones, their household etc.). Moreover, in line with Aguilera-Hermida (2020) and Xhelili et al. (2021) studies, students in Croatia and Sweden mentioned that it was easier for them to focus in the physical classroom when they were together with their classmates. Further, some students in Croatia and Sweden highlighted that they would obtain more knowledge if they had been in a physical classroom. These findings align with Sarkar et al. (2021) discovery that students have difficulties understanding and learning because they were not in a natural classroom environment. In turn, this portrays a challenge for students following online classes. Thus, creating an online learning environment with features similar to a traditional classroom environment can help address this issue. Namely, students from the same university can create virtual study rooms, similar to already existing online studying rooms such as studytogether.com. This approach can help them feel connected with their classmates while exchanging knowledge in an online environment.

However, online classes were more convenient for a few students in Croatia and Sweden, which supports Bartolic-Zlomislic and Bates's (1999) observation that students improved several skills in online education, such as writing. Namely, most students in Sweden mentioned that they developed their analytical and critical writing skills. Similarly, few

students in Croatia said that online education suited them better because it inspired them to learn more.

In terms of communication in online education, our results align with other studies (Aguilera-Hermida, 2020; Akuratiya and Meddage, 2020; Sarkar et al., 2021), claiming that students' interaction with teachers and classmates was reduced in the online classroom setting. However, almost all interviewed students in both countries noted that communication with their teachers was more relaxed in online classes. Furthermore, communication was mainly in written format via email or chat. Interestingly, students in Croatia used emojis and GIFs in their online chats with their teachers to express their feelings, and teachers would also use emojis and GIFs to respond. Thus, in agreement with what teachers stated on this topic, it could be argued that teachers responding in the same way with emojis and GIFs encouraged students to communicate more casually in writing with teachers.

Conversely, some students in Croatia and Sweden said that it was challenging to ask questions online because they had to be more prepared for what they wanted to ask. This can be explained by the previously mentioned lack of interpersonal and non-verbal cues. Furthermore, students referred to issues such as turn-taking, lack of non-verbal cues and facial expressions, which affected their communication in the online classes. Therefore, to touch upon this issue, we suggest that both sides should exchange their views on that topic so they can acknowledge what to improve. Perhaps, teachers could engage students more with interactive materials such as polls or quizzes, while students could turn on their cameras and show interest by answering and participating.

Concerning students' motivation, our results contradict Gustiani's (2020) research, where she discovered that students were intrinsically motivated for online learning. Namely, most

students from both countries felt less motivated for online learning due to different reasons such as sitting in the same place for a long time, screen fatigue and lack of social interactions; some students even thought online classes contributed to laziness. Moreover, some of them stated that they lost their motivation because they did not see their classmates and did not have feelings of a natural studying environment. Therefore, unlike Gustiani's (2020) study in which students were intrinsically motivated by a desire for good grades, we believe that the human factor and a sense of community play an essential role in students' motivation for online education.

Regarding well-being in Croatia and Sweden, some students felt exhausted after their online lectures. Moreover, students in Sweden felt loneliness, anxiety and stress, which indicate that students were badly affected by online education. It could be argued that unlike students in Croatia who knew their classmates before, the feeling of loneliness and anxiety were more present among students in Sweden since they did not get a chance to meet their classmates and develop relationships with them.

Moving to a discussion of the last and specific theme for students, we conclude that students in Sweden benefited from the multicultural online classroom environment. Namely, interviewed students highlighted that the multicultural online classroom helped them increase their cultural awareness and become more creative and inclusive. Naturally, they also reflected on potential challenges they faced, mostly connected with different understandings of tasks or sometimes language barriers and difficulties in interpretations. This finding aligns with Zhang and Kenny's (2010) statement that international students are exposed to different cultural expectations. Therefore, in contexts like this, where international students get a chance to meet only online, we advise designing virtual interactive events that will allow

students to share information about their language, cultures, and customs to get to know each other better.

These results raise questions regarding the adaptation and perceptions of online education and its impacts on universities' stakeholders. Therefore, a hybrid style of education could be a new era for higher educational systems, especially nowadays when change and unexpected events are almost everyday phenomena. Also, joint attempts to overcome communication problems would significantly be necessary for the entire educational system.

6. Conclusion

6.1. Research summary

This study aimed to explore and compare similarities and differences in the teachers' and students' perceptions of online education in Croatia and Sweden during the COVID-19 pandemic. We conducted semi-structured interviews as a method for data collection. We recruited thirty participants from communication master's programmes at the Catholic University of Croatia and University of Gothenburg as a case study. After data collection, we utilised thematic analysis in analysing the qualitative data. Then, the empirical results were divided into two categories: teachers' and students' perceptions on online education in Croatia and Sweden.

Obtained results indicated several similarities in teachers' and students' perceptions in both countries. Namely, both parties agreed that online education provided flexibility and accessibility, especially for parties in the Swedish university. Moreover, there is an agreement about the significant challenge of online education - communication. It is spotted that communication is aggravated and reduced due to a lack of interpersonal cues in an online environment. An interesting common feature of online education emerged - participants noted that online teaching is suitable for introverted students.

However, our data discovered few differences in perceptions towards online education. Scilicet, we noticed that teachers in Croatia are more negative towards online education. Findings also suggest that teachers in Croatia were facing issues with online exams, unlike teachers in Sweden. It was found that online platforms made it difficult for teachers to control exams. Finally, the results also revealed that giving lectures or participating in a multicultural

online class only sometimes was challenging due to language barriers. However, it provided students and teachers in Sweden with valuable experiences.

Furthermore, we concluded that online education has a direct impact on the higher education stakeholders - teachers and students in Croatia and Sweden. Thus, it is essential to consider outlined advantages and challenges of online education for future planning. Based on our findings, there are few possibilities of how our findings can be implemented to improve possible future online schooling.

Firstly, it seems crucial to pay more attention to enhancing communication in online classes. For instance, more inclusive and engaging activities could be added to online classes to encourage students to participate more. Secondly, almost all the interviewed teachers and students referred to the challenges they faced during their online classes. However, they also highlighted some advantages of online classes. Therefore, we suggest that the higher education systems in both countries implement some hybrid classes in the future. Moreover, the hybrid classes seem like a sustainable approach to higher education because it gives a choice to teachers to plan which classes can be more suitable in a hybrid format. Further, students can choose whether to follow lectures online or in a physical model.

Finally, we discovered that one crucial factor in online education is the exploration of students' personality traits. Namely, both students and teachers noted that online classes suit introverted students because these students become more active and engaged. Therefore, we suggest that teaching practices adopt new changes such as online communication activities after COVID-19 when students and teachers return to physical classes.

Concerning the theoretical implications of this study, it is noted that there are visible differences in examining two different educational systems. Namely, studying in a

multicultural online learning environment brought out interesting implications for managing group dynamics and exchanging ideas. Another theoretical implication is the need for detailed investigations of adaptation to online learning in digitalised countries that are still closed to experimenting with and applying technologies in their everyday lives.

6.2. Limitations of the study

The primary limitation of this research is that the results cannot be generalised because of the number of participants and the focus on only one master's programme at two universities in two different countries. Moreover, the sample size, especially for teachers, could be another limitation of this research because we interviewed fifteen participants at each university, with five of them being teachers and ten of them being students. However, this research added qualitative data that could serve as a basis for further investigations in the Croatian and the Swedish higher education contexts.

The other main limitation is the potential sampling bias (Bryman, 2012). Both authors of this research are master's students in the Master in Communication programme at Gothenburg University and interviewed their classmates and teachers from the Swedish context. Nevertheless, the authors endeavoured as much as possible to neutralise themselves during the whole research process.

6.3. Future research

This study focused on a specific small scale of participants at only two universities. Therefore, we suggest conducting new studies with broader samples of participants from these two countries for future research. Moreover, based on our findings, practitioners should focus on

investigating the connection of students' personality traits with participation in online classes. Furthermore, this finding can also contribute to the implementation of hybrid classes because it would give the ability to students to choose in which education environment they feel more comfortable.

In closing, this study can serve as a basis for further comparative research into perceptions of online education and possibilities for its improvements. Consequently, we believe hybrid classes are the future of educational systems, which requires further investigation.

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Appendix 1 - Semi-structured interview guide for University of Gothenburg teachers

Introduction

Welcome to this interview and thank you for being here. My name is _____ and I am a communication master's student at University of Gothenburg. I would like to inform you that this interview will be video and audio recorded. Could you please give your consent to recording this interview?

General Questions

- What is your native language?
- How long have you been working as a university professor/teacher?
- How long have you been working at University of Gothenburg/ the Catholic University of Croatia?
- Do you have experience in teaching online before COVID-19? If yes, for how long?

Body of interview

Online versus traditional classrooms

- What online platforms do you use in your lectures/university? What do you think of them?
- Have you had training on how to hold an online lecture? Or some technical support?
- Has online lecturing provided you with some innovative teaching methods? Example?
- What are your impressions of giving a lecture to a screen/ speaking to a void?
- What do you think of students' engagement in online classes? (Such as attendance, participation and using their cameras)
- How can you describe the interaction between teachers and students in online classes?
- Do students during your lectures have cameras on? What do you think about students not turning on their cameras?
- What are the differences between preparing your lectures for online versus physical classes?
- How can you manage group discussions in online classes? Is it difficult to control?

Personal factors in online teaching

- How did online teaching affect your motivation for teaching?
- How do you describe your experience in teaching online? Are there any challenges or advantages? If yes, explain.
- What does the ideal online teaching communication look like for you?

Online communication

- Do you conduct your online classes in your native language? If not, how was your experience expressing yourself in English online?
- Do you think there is online miscommunication between you and your students due to language barriers? If yes, explain.
- Do you think you managed to transfer the knowledge online about your course in the same way as you would in a physical classroom? Explain.
- Is there power distance between teacher and students? How does this influence communication?

Future perspectives and ending

- In your opinion, is there any communication course that should not be taught online? If yes, which and why?
- Based on your online teaching experience during COVID-19, what can be added based on your online class experience to improve physical classes?
- Do you have something else you would like to add?

Appendix 2: semi-structured interview guide for Croatian Catholic University teachers

Uvod

Dobrodošli na ovaj intervju i hvala Vam što ste ovdje. Ja sam _____ i studiram na diplomskom studiju Master in Communication na sveučilištu u Göteborgu. Informiram Vas da će ovaj intervju biti video i audio snimljen. Možete li molim Vas dati svoj pristanak za snimanje ovog intervjua?

Opća pitanja

- Koji je Vaš materinski jezik?
- Koliko dugo radite kao profesor/ica?
- Koliko dugo radite na Hrvatskom Katoličkom Sveučilištu?
- Jeste li imali iskustva s online nastavom i podučavanjem prije COVIDA-19?

Tijelo intervjua

- Koje online platforme koristite za predavanja? I koje za objavljivanje materijala, ispita, ocjena? Što mislite o tim platformama?
- Jeste li imali obuku kako održavati online predavanja? Ili tehničku podršku?
- Je li vas online nastava inspirirala na neke inovativne metode podučavanja?
- Koji su Vaši dojmovi o držanju predavanja ispred ekrana ili ekranu? Tj pričati praznini?
- Što mislite o uključenosti studenata na predavanja (njihova dolaznost, javljanja, kamere)?
- Kako opisujete interakciju između Vas i studenata na online nastavi?
- Kako upravljate grupnim raspravama na online predavanju? Je li ih teško kontrolirati?
- Po vašem mišljenju što je učinkovitije nastava online ili uživo kad je u pitanju angažman i sudjelovanje studenata, i gdje ih se može više zainteresirati za predavanje?
- Koje su razlike u pripremi predavanja za online nastavu i za nastavu uživo?
- Preferirate li online ili predavanja uživo i zašto?

Osobni faktori

- Kako je online nastava i predavanje utjecalo na Vašu motivaciju za predavanje?

- Kako bi ste opisali Vaše iskustvo podučavanja komunikoloških predmeta u online formatu? Ima li nekih prednosti ili mana?

Online komunikacija

- Držite li predavanja na materinskom jeziku?
- Događa li se nekad miskomunikacija između Vas i Vaših studenata (u online predavanjima) i ako da zašto?
- Mislite li da ste uspješni studentima prenijeti znanje o kolegiju tijekom online nastave isto kao što biste im prenijeli da su predavanja bila uživo?
- Postoji li hijerarhija u komunikacije studenata i profesora i kako je to utjecalo na vašu komunikaciju?

Buduće perspektive i završetak

- Ima li, po Vašem mišljenju neki kolegije komunikologije koji se ne može podučavati online? Zašto?
- Što bi ste promijenili, nadodali ili izbacili iz online predavanja kako bi ste poboljšali?
- Kako je online nastava utjecala na Vaše zdravlje? Imate li što za nadodati?

Appendix 3 - Semi-structured interview guide for University of Gothenburg students

Introduction

Welcome to this interview and thanks for being here. My name is _____ and I am a communication master student at University of Gothenburg. I would like to inform you that this interview will be video and audio recorded. Could you please give your consent on recording this interview?

General Questions

- What is your native language?
- Why did you choose to join this your current master's programme?
- Have you attended online classes before COVID-19? If yes, for how long?
- Have you attended physical classes before? In which country?

Body of interview Technology

- What online platforms and communication technology tools do you use in current online learning?
- How difficult or easy is it to use distance learning technology (computer, video calls, learning application)?

Online classes

- What are the differences between online and physical classes? Which do you prefer and why?
- What are the advantages and challenges of online learning?
- Has your understanding of the lectures and class materials changed in the online classes? If yes, how?
- Is the fact that English is not your native language affecting the understanding of online classes and your communication with your teachers and colleagues?
- Do you think your productivity and motivation as a student have increased or decreased during online classes? Why?
- What are the most engaging activities that happen in online classes for you? (e.g., Menti, breakout rooms)
- Have your teachers been cooperative and more understanding of the hardships you faced as a student that studied online? Explain.

- Is attendance obligatory for all the lectures in your master's programme? Explain.
- Have you ever left the online class in the middle of the lecture? Why? Would you do the same in a physical lecture?
- Are there any differences between physical and online classes in preparation for group assignments/exams? Describe.

Communication

- Are there any differences in communicating with teachers in online classes (feedback, discussion, emails)? If yes, describe.
- Have you known your classmates before the online classes? If yes, since when?
- Do you think establishing relationships with your classmates in online classes is possible?
- What are the benefits and the challenges of having a multicultural/international online classroom?
- Have online classes affected your personality and your communication? If yes, how?
- Concerning group work in the international class, are there some challenges in understanding or interpreting each other? Different language/culture in the group.
- Would it be different or easier to interpret what others are saying/thinking in physical classes?
- Do you feel that you acquired the skills required for your field (communication) through online classes, as you would get through physical classes? Explain.
- How does power distance affect your communication with the teacher/professor?

Future perspectives and ending

- Do you think any communication courses are more suitable to learn in online classes?
- Are there any communication courses that should not be conducted online? If yes, which and why?
- What can be added or removed to improve the online learning experience for students?
- Have online classes affected your mental health or changed you somehow?
- Do you have something else you would like to add?

Appendix 4: semi-structured interview guide for Croatian Catholic University students

Uvod

Dobrodošao/la na ovaj intervju i hvala što si ovdje. Moje ime je _____, ja sam studentica na diplomskom studiju Master in Communication na Sveučilištu u Göteborgu. Obavještavam te da će ovaj intervju biti snimljen video i audio zapisom. Možeš li dati pristanak za snimanje ovog intervjua?

Opća pitanja

- Koji je tvoj materinski jezik?
- Možeš li mi reći nešto o tvom trenutnom diplomskom studiju i na kojem sveučilištu studiraš?
- Zašto si izabrao/la taj smjer/program?
- Jesi li ikad pohađao/la online predavanja prije COVIDa-19? Ako jesi, koliko dugo?

Tijelo intervjua

Tehnologija

- Koje online platforme i komunikacijske kanale (alate) koristiš u trenutnoj online nastavi?
- Jesi li doživio/la poteškoće s korištenjem digitalnih tehnologija? Ako jesi, kako je to utjecalo na tvoje učenje i praćenje online nastave?

Online predavanja

- Koje su razlike između online i fizičkog predavanja? Koji oblik preferiraš i zašto?
- Koje su prednosti, a koje mane online učenja (nastave)?
- Kako se tvoje razumijevanje materijala i predavanja promjenilo kad se fizički oblik predavanja prebacio na online predavanja?
- Je li se tvoja produktivnost kao povećala ili smanjila tijekom online nastave? Zašto?
- Kako su online predavanja utjecala na tvoju motivaciju za učenjem i pohađanjem predavanja?
- Koje su najzanimljivije aktivnosti u online predavanjima?
- Jesu li profesori surađivali i imali razumijevanja što se tiče poteškoća s kojima se ti kao student koji studira online suočavaš?

- Je li pohađanje predavanja obavezo? Objasni.

Zadaci, ispiti i ocjenjivanje

- Imate li grupne zadatke na diplomskom studiju? Ako da, koje komunikacijske kanala preferiraš u komunikaciji sa svojim članovima grupe? Zašto?
- Kako si osigurao/la da profesori i tvoji kolege razumiju to što prezentiraš?
- Ima li ikakve razlike između online nastave i fizičke nastave u pripremi za grupne seminare, kolokvije i ispite? Opiši.
- Je li se online i fizički način ocjenjivanja razlikuju? Kako? Što misliš o tome?
- Je li se način ispitivanja, kookvija razlikuju? Kako?
- Koji je način prezentiranja seminara, a koji završnog rada?

Online komunikacija

- Ima li ikakvih razlika između komuniciranja s profesorima na online predavanjima nego na predavanjima uživo?
- Sudjeluje li u nastavi, odgovaraš li na pitanja? O čemu ovisi?
- Ima li nekih razlika između online nastave i fizičke nastave u komuniciranju s kolegama? Opiši.
- Misliš li da je online nastava nekako utjecala na uspostavljanje veze sa tvojim kolegama? Kako?
- Ima li neki predmet (pogotovo koji se odnosi na komunikaciju) da se po tvom mišljenju ne može predavati online? Ako da, koji i zašto?
- Misliš li da si kroz online predavanja stekao/la vještine potrebne za tvoje područje (novinarstvo, PR?) isto kao što bi ih stekao/stekla da su predavanja bila uživo? Objasni.
- Postoji li hijerarhija u komuniciranju s profesorima i kako to utječe na vašu komunikaciju?

Buduće perspektive i završetak

- Misliš li da na tvom smjeru ima ikoji predmet koji je više pogodan za učenje online putem?
- Na temelju tvog iskustva s online nastavom tijekom COVIDa-19, što bi promjenio/la kako bi poboljšao učenja i nastave za studente?
- Kako je online nastava utjecala na tvoje zdravlje? Imaš li nešto za dodati?

Appendix 5: Consent Form

The challenges and outcomes of online education for communication master students and teachers during COVID-19 pandemic in Croatia and Sweden.

The master students Ivna Tunjic and Moaath Haggag Hejdenberg are conducting a qualitative study about the effects of online education (during the COVID-19 pandemic) on communication and learning or teaching experience in the communication higher education master programmes. This study aims to compare the perspectives of teachers and students from two different universities – the University of Gothenburg in Sweden and the Catholic University of Croatia. This study is part of the degree project course of the Master in Communication programme in the institution of Applied IT at University of Gothenburg. The data collection for this project is done through semi-structured interviews.

I hereby affirm that I consent to participate in an audio and video recorded interview by signing this form. Also, I confirm that I am aware of the following:

- My participation is entirely voluntary, and it is fully confidential.
- I have the right to refuse to answer any question without further explanation.
- I have the right to withdraw from the interview at any time.
- The interview is video and audio recorded and the recording will be used only for academic purposes and will be deleted after transcribing the interview.
- Any information collected for this study will remain strictly confidential, will only be accessible to the research team, and be used only for the research.
- The interview recording will be stored in a safe location and only the two researchers will have access to them.
- The people responsible for my personal data are the two researchers, Moaath and Ivna.
- According to the EU Data Protection Regulation, I have the right to access the information about me that is handled in the study free of charge and, if necessary, have any errors corrected.
- I am aware that my identity and my personal information will not be disclosed in the final paper.
- At the start of the interview, I will give additional verbal consent to record the interview.
- The interview will last approximately forty minutes.

Moreover, no immediate consequences or risks have been identified in this study. It is not an objective of this research study to collect personal information of a sensitive nature. Please

reach out directly to the two researchers of this study (using the contact information provided) should you have any concerns about the consequences or risks of participating in the study.

Finally, if you have any questions about the study. In that case, you can contact us:

Ivna Tunjic: gustuniv@student.gu.se

Moaath Haggag Hjedenberg: gushagamo@student.gu.se

Place and date: _____

Signature:

Appendix 6: Transcripts of Interviews

<https://drive.google.com/file/d/1uMYA4pRlpNpeOCbdvyhN8r2fQfil-GgU/view?usp=sharing>

Appendix 7: Organisation of themes and codes

Teachers' perceptions of online education in Croatia and Sweden during COVID-19				
THEMES	CODES			
Advantages of online education	Accessibility and flexibility	New experience	Suitability for introverted students	
Challenges of online education	Communication and feedback	Difficulties in transferring knowledge		
Perception of online lectures	More multimedia content	Pre-recorded lectures	Effective organisation of the lectures	
Perception of communication and students' participation in online education	More relaxed	Lack of non-verbal cues	Less communication	Suitable for introverted students
Effects of online education on motivation and well-being	Weird, catastrophic, burden, disaster, lonely, evil	Uncomfortable of speaking to a screen	Lack of feedback	Camera off by students
The organisation of online exams	Hard to control the exams	Time limitations	Open-book exams	
Multicultural online classes	Language barriers	Group work	Break-out rooms	

Students' perceptions of online education in Croatia and Sweden during COVID-19				
THEMES	CODES			
Advantages of online education	Flexibility, timesaving, financial relief, relaxed and comfortable	Suitable for introverted students	Possibility of work besides studying	More inclusive
Challenges of online education	Difficulties in the online discussion	Health issues	Issues with technology	
Learning in the online environment	More distractions	Reduced concentration	Different study habits	
Communication in online education	More relaxed	Written communication (GIFs and emojis)	Turn-taking issues	One-way communication
Effects of online education on motivation, productivity and well-being	Demotivation and decreased productivity	Screen fatigue	Lack of social interactions	Tiredness
The influence of multicultural classrooms	Language barriers and cultural differences	Improved creativity	Group work	

STATEMENT OF DIVISION OF WORK BETWEEN THE AUTHORS

ABSTRACT – Ivna and Moaath

INTRODUCTION – Ivna and Moaath

LITERATURE REVIEW – Ivna (revised by Moaath)

METHODOLOGY – Moaath (revised by Ivna)

RESULTS – Ivna and Moaath

DISCUSSION- Ivna and Moaath

CONCLUSION – Ivna and Moaath

REFERENCES – Ivna and Moaath

APPENDICES – Ivna and Moaath