



# Online oral examinations during Covid-19

## A survey study at University College level

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### Abstract

I den første periode for nødundervisning under Covid19-nedlukningen har mange studerende og undervisere på videregående uddannelser gennemført mundtlige eksamener gennem videokonference. Både nationalt og internationalt mangler der forskning i digitale mundtlige prøver. Hvordan oplever studerende at gå til eksamen i eget hjem, hvad betyder teknologien, hvordan håndteres nervøsitet og især, hvordan kan man realisere idealet om den gode samtale og det gode samarbejde med censor under de nye vilkår. I dette studie undersøges studerendes og underviseres erfaringer med online mundtlige eksamener på en professionshøjskole i Danmark. Studiet består af statistiske analyser på baggrund af en survey og kvalitative analyser af åbne svarkategorier. Ud over den overordnede tilfredshed for både studerende og undervisere, er det vigtigt at have øje for de modsatrettede erfaringer med den digitale prøveform under Covid-19.

### Abstract in English

During the Covid-19 pandemic, many teachers and students were forced to hold or take online oral examinations by video conferencing. Little research has been done on this topic either internationally or in Denmark. How do students experience examinations while sitting at home? How does the technology affect practice? How do students and teachers deal with nervousness? How is the exam dialogue experienced in a digital setting? In this study, we investigate the experiences of students and teachers with online oral examinations at a university college in Denmark. The study is based on the statistical analysis of a survey and a qualitative analysis of open text fields. Despite overall satisfaction with online oral examinations on the part of both students and examiners, the results indicate that there are conflicting experiences with online oral examinations.



## Introduction

In Denmark, oral examinations are a widespread form of assessment at all educational levels. All Danish students entering University College level have some experience with oral examinations from primary and secondary schools. Let us initially sketch out some typical forms of summative oral assessments. Sometimes, the student has submitted a written synopsis or paper beforehand, on which the oral part is based. Sometimes, the student draws a text, question or theme an hour before the oral part and has to prepare a presentation in a neighbouring room. Sometimes the exam is an oral defence of a written project. When the student enters the room, the teacher, now acting as examiner, and the internal or external co-examiner, who takes notes and acts as the students' guarantor of a fair assessment, may shake hands with the student to underline the formality of the situation. Often there is water and even candies available on the table, which in some cases is covered with a green cloth. At the university college level, the student is often invited to suggest a structure for the oral part of the exam and to give an initial presentation. In general, examiner and co-examiner follow the ideal of a supportive, gentle dialogue with the student during the oral assessment. Towards the end, the student leaves the room while the examiner and co-examiner assess the performance. When the student is called in again, the examiner announces the grade, offering some supplementary comments and reasons. Though group examination is allowed in most educational programs, an individual assessment is still required. This, briefly, is the situation in Denmark.

From 11 March 2020 to July 2020, teaching at universities and university colleges had to be conducted online from one day to another. Teaching and the upcoming oral examinations were expected to be conducted online as scheduled under the first wave of Covid-19. Neither teachers' nor students in higher education were prepared for this. Without warning, teachers had to find new ways and adapt teaching and examinations to an online environment only. During the teaching period, teachers and students were disconnected from their social life at the educational institutions. Also, students, who had to agree to being examined using video-conferencing systems participating from their private homes, were not able to experience the familiar excitement and peer discussions before and after the exam period at their institution. In this study, we investigated indications of how oral examinations have taken place under these conditions, and how students and staff have experienced online oral exams. So far, such experiences have not been studied in the context of the university college lockdown in Denmark.

## Research into emergency teaching and examinations

Quite a number of studies have already been made of the implications of the Covid-19 shutdown on educational institutions (Andersen, Gerwien, & Kammer, 2020; Danmarks Evalueringsinstitut, 2020; Georgsen & Qvortrup, 2021; Jensen, Hedelund, & Mortensen, 2021; Madsen, Gottfredsen, & Noer, 2020; Misfeldt et al., 2020; Rambøll, 2020; Zambach, Franck, Nielsen, & Kjærgaard, 2020). Although examinations are important aspects of formal teaching and learning, only one of these evaluations deals with online examinations, or specifically with oral examinations in online settings. The Rambøll-report (Rambøll, 2020) deals with teachers and students at the University of Copenhagen. Our study focuses on oral online examinations at university college level, where bachelor degree programmes are offered leading to professions in fields like applied technology, entrepreneurship, administration, marketing, tourism, education and the health sciences. The curricula for these degree programmes differ very much, and there are at least a dozen different forms of examinations within a programme. The legal basis for examinations at university college level demands forms of assessment that reflect the aims of the subjects and allow for oral, written, practical and project-oriented forms of assessment as well as combinations of these (Executive Order on Examinations 2020, BEK nr 18 af 09/01/2020). The legal provisions of the last ten years permit oral assessment through video conferencing or by other technical means that ensure the same secure and fair treatment as under normal conditions. But these possibilities have only rarely been used.



During the Covid-19 shutdown, teaching had to be online and all teachers and students faced new examination conditions. Firstly, both teaching and examinations during the Covid-19 lockdown are regarded as under emergency conditions, because of the sudden change in conditions and requirements for teachers and students. Furthermore, conditions might change until the last moment, in a situation where the institutions received new guidelines from the authorities on a weekly basis. Teachers had to learn and adjust their practice based on their own short term evaluations. Under such conditions, F2F teaching and examinations had to be transformed into online forms with little help from the institution and with no prior capacity building for e-learning or blended learning for staff. Secondly, teaching and examinations are normally aligned, in the sense that forms of assessment should reflect the purpose, aims, content and working style of the teaching. Even though a study of Covid-19 experiences at nine higher education institutions did not directly document the relationship between the oral and written parts, there are some indications that emergency teaching, in comparison to F2F teaching, favoured written and independent work rather than the oral argumentation needed for oral examinations (Georgsen & Qvortrup, 2021). The question of alignment between teaching and assessment appeared to be more complicated during the Covid-19 conditions of the spring semester, 2020.

In general, you can view the matter from two sides. On the one hand, in specially designed e-learning programmes, assessments are aligned and often use a range of adequate examination forms, such as multiple choice with and without simulations, virtual scenarios, cases or other digital material, open and problem-based written answers, as well as e-portfolios, wiki, blogs, videos, podcasts, discussion fora and laboratory work eventually in combination with practical and oral sections through video conference systems (Blok & Gottlieb, 2011; Møller & Mikkelsen, 2015). On the other hand, the emergency teaching offered was neither the familiar well-known F2F teaching nor intentionally designed e-learning. Most of the teachers transferred their traditional F2F teaching into online practices as if they were still F2F practices (Georgsen & Qvortrup, 2021, p. 9). F2F lecturing and written assignments were seemingly easily transferred to online teaching, while the running of traditional classroom teaching with larger groups of students in online environments limited and restricted the dialogical dimensions (Georgsen & Qvortrup, 2021, p. 9ff.). The emergency teaching turned out to be quasi e-learning in practice. This meant that emergency examinations during Covid-19 could adjust neither to specialized e-learning assessments nor to the different ways of working of quasi e-learning practice. We can label the emergency examinations 'quasi e-learning examinations'.

## Online oral examinations

There are discussions about the pros and cons of oral examinations in general (Fitzgerald, 2016). Among the advantages, Kehm mentions assessing deeper knowledge, the mastery of content and concepts, as well as skills in problem solving, critical thinking and communication (Kehm, 2001). The pedagogical idea behind all this seeks to give the students an opportunity to demonstrate their knowledge and abilities. In line with Akimov & Marlin, in study programmes for students studying for the professions at university colleges it is argued that in general students must acquire applied communicative competences in order to meet customers, clients and end users in future jobs.

In Denmark, as in Germany and the other Scandinavian countries, often called countries within the *Didaktik* tradition (Krogh, Qvortrup, & Graf, 2021), oral examinations, despite criticism since the 1970s, enjoy a good reputation and are widely embraced (Kehm, 2001). In other countries, the practice and endorsement of oral examinations is different. For example, Akimov and Marlin in their small survey of students in Australia report that 41 % of them had never had an oral exam before (Akimov & Malin, 2020, p. 1205). Some years ago, in an international perspective, Joughin pointed out that the investigation of the practice of oral examinations is an area of assessment research that has been especially neglected (Joughin, 2010). According to Akimov and Marlin, even today there is "limited research" on the use of oral examinations in online environments and "the literature that discusses oral examinations in an online context is practically non-existent" (Akimov & Malin, 2020, p. 1206).



To our knowledge, and apart from the above-mentioned Rambøll survey, there is only one paper concerned with online oral examinations in Denmark. This small qualitative case study at the University of Southern Denmark deals mainly with technological issues concerning the chosen conference system, Adobe Connect, in order to give students and staff better guidelines in advance (Kjær, 2011). At that time – and it is not a long time ago – online oral examinations were indicated when either students, examiners or co-examiners were out of the country, or there were only one or two students to assess, so the travelling involved in being together in one place would outweigh the benefits.

Our interest in online oral exams arises not only against the backdrop of this gap in the research, but also because exams are situations in which something is ‘at stake’. Firstly, exams are formal situations involving the legally binding verdicts of examiners and have consequences for students, such as re-examinations, changing study programmes and career plans. Secondly, the new and continually revised conditions for emergency examinations may add an extra emotional dimension to a situation where much is at stake. If something is at stake – so goes our assumption – online oral emergency examinations may amplify experiences of advantages and challenges compared to emergency online teaching in general. Thus, online oral emergency examinations are an obvious object and critical case for investigations of experiences with the advantages and challenges of online oral situations afforded and constrained by video conferencing.

## Research question

On the basis of these assumptions, the guiding research question for this study may be formulated as follows: *How have students and teachers at the university college level experienced online oral examinations under Covid-19 emergency conditions and what we can learn from this in the design of future professional degree programmes?*

The Rambøll-survey included questions concerning the preparation for exams, technology and nervousness, feeling confident in the situation, achieving the academic level, grading and cheating (Rambøll, 2020). Our interest in experiences of students and teachers with online oral exams concentrates on similar questions gathered into four topics. We are looking for experiences involving *technological, dialogical, emotional and preparation issues*. Considering the main change from F2F to online examinations, it is obvious that experiences with the technology are at the centre of our study. In relation to communication during examinations there are different approaches. While in the curriculum tradition examination communication is framed as *interrogation* (besides presentation and application) (Joughin, 2010), in the *Didaktik* tradition it is seen as “an unrestrained talk between one person and another” (Kehm, 2001, p. 27). We assume that this dialogical ideal for F2F exams will be a central issue and a challenge to emergency online examinations, in which the nonverbal communication is framed by video conferencing systems. The third topic we call ‘emotional’ and comprises issues like the clash of formal and informal settings when taking exams at home, as well as students’ nervousness in general. According to Akimov and Marlin’s literature review, anxiety, stress and nervousness are major hurdles for online oral examinations (Akimov & Malin, 2020, p. 1207). The fourth topic is about students’ academic preparation and the efforts of teachers to prepare the students both academically and as regards the new online conditions. Other studies include cheating in an online environment, but since this topic is not a high-ranking issue for oral examinations, we will leave that out (Akimov & Malin, 2020, p. 1207). Studies that focus specifically on oral examinations in themselves may include looking for academic achievement and the validity and reliability of the assessment. In their case study, Akimov and Marlin demonstrate that online oral examinations “prove to be a high-quality assessment item with strong validity characteristics” (Akimov & Malin, 2020, p. 1206). In our study, such topics are left out, since we focus on experiences under emergency conditions. Despite research that underlines personality as a critical factor for how examinations are experienced (Akimov & Malin, 2020; Kehm, 2001), we had to leave this out in our research design. However, when experiences of practice are in focus, we assume that prior experience with oral online formats may constitute an important factor in relation to new experiences.



## Method

Our study is an 'add-on section' of a larger investigation on emergency teaching at five university colleges and four universities in Denmark, carried out in June 2020 (Georgsen & Qvortrup, 2021). The major study comprises a student survey (n=20,195) and a teacher survey (n=2,955); in the case of UCL University College, 2,188 students and 365 teachers responded. In order to identify respondents who had actually participated in online oral examinations, we used a filter question. We ended up with 897 students and 242 teachers who had completed the 'add-on section' on oral online examinations at UCL University College.

The add-on section included ten questions that targeted the experiences of students and staff with online oral examinations related to the above-mentioned four topics. The questions for the students and teachers were aligned as much as possible, but some questions had to grasp the specific perspective of either the student or the examiner. Some questions targeted the difference between F2F and the emergency examination form. To avoid automatic box ticking, we altered the positive and negative value of the questions. We used a five point Likert scale: Strongly disagree, Disagree, Undecided, Agree, Strongly agree. In addition, there was the possibility of ticking 'not relevant'. The ten questions were tested and revised in a process involving a reference group of management staff, students and teachers. We supplemented the survey with two questions that allowed us to observe whether responses differed depending on specific traits. The first is a self-reported background variable: whether the respondent had *prior experiences* with online oral examinations or not. The second question forced the respondents to take a stand on whether they felt *overall satisfaction* or not with their emergency exam experiences. Right after this last question on the questionnaire, respondents were prompted to give reasons for their answer concerning satisfaction in an open text box.

In addition to the frequency tables, we conducted statistical analyses with the aim of investigating whether the respondents' answers to our questions differed across 'prior experience' and 'overall satisfaction' respectively. As all variables were categorical, we used a Pearson Chi-Square test (Agresti & Finlay, 2009, p. 224 - 233). The Chi-Square test examines whether an association between the two categorical variables could be identified. This was analysed by using a contingency table and comparing whether the observed frequencies in the cells of the contingency table differed from the values expected from a null hypothesis of independence.

We sorted this open text corpus according to the two self-reported background variables - with/without prior experience and overall satisfaction or not - in order to be able to identify patterns for each of these four respondent groups for students and teachers respectively. In this way, we could identify whether, for example, a satisfied respondent had also made critical open text statements. In Nvivo, we coded these four respondent groups for students and staff in two ways. Firstly, the open texts were post-categorized, i.e., assigned to the ten questions of the questionnaire for students and teachers to find out which open text parts relate to the survey questions. Secondly, and in the same coding procedure, we tried to identify issues that thematize questions other than the survey questions and developed explorative codes. We were interested in which other kind of arguments were in the forefront of the minds of the respondents. As Nvivo allows cross tables between codes and the case variables 'overall satisfaction' and 'prior experience' for students and teachers, we performed such cross tables to get a picture of the distribution of the post-categorized open texts across the four subgroups.

The qualitative analyses do not represent an independent method in this study, but serve different, complementary, purposes. Firstly, they *enrich* the quantitative results in order to achieve a more comprehensive understanding of the main topics. Secondly, they allow the capturing of important issues that are not anticipated by the survey. Thirdly, the qualitative results can be weighted and balanced against the quantitative distribution. In this sense, the study can be seen as a complementary mixed methods approach (Frederiksen, 2011, p. 201).



## Overall results from the survey

Firstly, we focus on whether students and teachers were satisfied with the oral exams. According to our survey, 79% of the students and 77% of the teachers expressed their overall satisfaction with online oral exams. Tables 1 and 2 display the answers of students and teachers in relation to the ten items that tapped into their experiences.

Table 1: Students' experiences in percentages

		Strongly disagree Disagree	Undecided	Strongly agree Agree	N
Technology	I found that the technology worked fine during the online exam. (Functionality of technology)	17	13	70	852
	The digital tools in connection with the exam contributed to a clearer structure for my work. (Technology as help)	32	44	24	824
Emotions	I was more nervous at the oral exam than I usually am. (Nervousness)	41	29	31	845
	I think it was an advantage to be able to take the exam under safe conditions in my home. (Exam at home)	32	22	47	843
	I have had a hard time adjusting to the formal exam situation at home. (Informal/formal issue)	41	22	38	845
Dialogue	I found the dialogue difficult in the digital meeting room. (Difficulties with dialogue)	40	20	40	852
	The examiner/censor provided a good framework for dialogue in the meeting room. (Facilitation of dialogue)	11	19	70	820
	It was difficult to sit the exam as a group. (Group exam)	29	25	47	477
	Presenting something digitally or physically during the online test went fine. (Presenting things)	22	20	58	730
Preparation	I was better prepared for the academic side than I usually am. (Academic preparation)	37	42	22	857

Note: Omitting 'not relevant' results in different N for each item.

Looking at the highest percentage in table 1, we identify a majority of students that had satisfying experiences with the functioning of the technology (70%) and the facilitation of the dialogue by teachers (70%). A small majority (58%) observed that it was easy to present things. Small percentages for undecided students and a balance of both sides indicate that the question very clearly divided the respondents: e.g., difficulties with dialogue (20%), the informal/formal issue (22%) and exams at home (22%). A higher percentage of undecided students and a balance of both sides indicate that the issue divides only a small group of respondents: e.g., technology as help (44%), academic preparation (42%). Despite the fact that the item 'nervousness' is almost equally distributed, there are a slight majority of students who denied being more nervous than usual. 47% of the students had trouble with group exams.



Table 2: Experiences of teachers in percentages

		Strongly disagree Disagree	Undecided	Strongly agree Agree	N
Technology	The technology worked fine during the online exam. (Functionality of technology)	24	9	67	241
	The students had good control of the technical and digital meeting room. (Students' ICT-skills)	14	15	71	241
Emotions	I could take care of the students who were nervous. (Taking care of nervousness)	31	12	57	233
	I found that the students had difficulty adjusting to the oral exam situation at home. (Formal/informal issue)	40	37	23	235
Dialogue	It was difficult to conduct the online grading. (Grading)	62	25	13	229
	I found a new way to organize the dialogue in the digital meeting room. (Reorganizing dialogue)	15	39	46	232
	There were no problems conducting the online group exam. (Group exam)	39	20	41	146
	It was difficult for the students to present something digitally or physically. (Presenting things)	37	17	46	235
Preparation	I spent more time helping the students with the academic guidance than I usually do. (Academic guidance)	13	34	53	234
	I spent more time preparing the students for the online oral examination than I usually do. (Preparation to exam)	7	18	75	236

Note: Omitting 'not relevant' results in different N for each item.

When we look at table 2, we observe that most teachers only noted a few students who had problems with ICT skills (14%), and the functioning of the technology during the examination (67%). Nevertheless, a quarter of the teachers experienced challenges with the functioning of the technology. While few of the teachers were undecided about taking care of students' nervousness, the majority (57%) could manage it and a third (31%) reported difficulties. Still, a quarter (23%) of the teachers reported students having difficulties with adjusting to the formal exam situation at home. There were no clear tendencies on the four questions regarding the exam dialogue. Only 15% of staff reported that they had trouble organizing the dialogue and only 13% found grading difficult. Meanwhile, as to the questions 'presenting things' and 'group exam', 'agrees' and 'disagrees' balanced on either side of 'undecided'. Finally, teachers responded that they used more time preparing students for the examination. While academic preparation only shows a small majority, 75% of the teachers used more time on preparing students for the emergency *online* exam.

## Does prior experience matter?

In the following section, we examine whether answers to the questions depend on prior experience in relation to online oral examinations. A quarter of the 897 students reported having prior experiences. The cross table



and Pearson Chi-Square test resulted in only two items where prior experience was significantly associated with the responses: 'technology as help' ( $p < 0,02$ ) and the 'formal/informal issue' ( $p < 0,04$ ).

Concerning the question as to whether the technology helped the students to structure their work, there were 41% experienced and 46% inexperienced students who reported undecided. That means that almost half were unaffected. The other half makes the difference. On one side, 32% of the students with prior experience and 21% without prior experience reported that technology helped them to structure their work. On the other side, the picture is different. Here, 27% with and 33% without prior experience ticked disagree. Although students with prior experience were significantly more likely to see technology as a help, the issue does not constitute a clear and consistent difference between experienced and non-experienced students. From an evaluation perspective, it is important to underline the fact that the unexperienced students were more numerous.

The other significant item concerns how students coped with the tension between a formal examination and the informal home situation. In this case, 21% of the inexperienced students reported undecided, while 39% agreed and 39% disagreed. Among the experienced students, 23% reported undecided, 33% agreed and 44% disagreed with having difficulties adopting to the formal exam situation at home. Overall, students with previous experiences, although fewer in numbers, coped significantly better with the tension between the formal and informal.

Regarding the teaching staff, 12% had conducted 'one' and 31% 'more than one' online oral examinations prior to Covid-19 ( $n=242$ ). That means that more than half of the teachers had no prior experience with online exams. Only the item 'reorganizing the dialogue' shows a significant association with prior experience ( $p < 0,01$ ). Half (49%) of the experienced teachers reported undecided. The majority of the rest (44%) agreed that they were able to reorganize the dialogue. The picture is slightly different for inexperienced teachers, in whose case we have fewer undecided (31%), 49% who agreed and 20% who disagreed about whether they were able to reorganize the dialogue. Inexperienced teachers were less indifferent but surprisingly reported more positively regarding being able to reorganize the dialogue in the online environment. Maybe experienced teachers felt less need to reorganize.

For this section, we conclude three things: There are only a few items in the survey that show significant differences between having and not having prior experience. Secondly, and considering that students and teachers without prior experience are more numerous, the differences have to be taken seriously in the perspective of evaluation. Thirdly, prior experience does not play a significant role for the other items in the survey such as students' nervousness, dialogue and the preparation for online oral exams.

## What is most important for satisfied and dissatisfied respondents?

Tables 3 and 4 display the responses related to whether students and teachers were satisfied or dissatisfied overall with the online oral examination. All items are highly significant ( $p < 0,00$ ). It is obviously not surprising that overall satisfaction is associated with various questions relating to previous experience. However, we examine these associations with the aim of finding out which experiences seem to be most strongly associated with overall satisfaction.

The most striking differences concern the items related to 'functionality of the technology', 'facilitation of dialogue' and 'difficulties with dialogue'. In relation to the functionality of the technology, both satisfied and dissatisfied students<sup>ii</sup> showed the same tendency towards a more positive judgment. However, 77% of the satisfied students did not have trouble with technology, whereas only 42% of the dissatisfied students had no trouble.

As for technology, the questions about preparation and group work showed the same tendencies in terms of satisfied and dissatisfied students, although in various degrees. When we looked at the highest percentage of



undecided students, the most noteworthy are questions about ‘technology as help’ (44%) and academic preparation (42%), closely followed by the questions on nervousness (29%).

Table 3: Students’ experiences with online exams conditional on overall satisfaction. Percentages

	Overall contentment	Strongly disagree	Disagree	Undecided	Agree	Strongly agree	N
Functionality of technology	Yes	2	9	11	32	45	687
	No	16	22	20	23	19	165
Technology as help	Yes	12	14	48	17	10	660
	No	32	24	30	9	4	164
Nervousness	Yes	24	21	29	14	12	681
	No	13	10	29	13	35	164
Exam at home	Yes	13	13	22	25	28	677
	No	42	16	22	13	8	166
Informal/formal issue	Yes	31	16	23	22	9	677
	No	8	8	18	29	38	168
Difficulties with dialogue	Yes	29	17	21	26	7	685
	No	5	8	18	35	34	167
Facilitation of dialogue	Yes	2	3	17	28	50	663
	No	17	20	27	22	14	157
Group exam	Yes	15	15	24	29	16	372
	No	6	15	27	10	42	105
Presenting things	Yes	4	11	20	31	34	585
	No	25	23	22	19	12	145
Academic preparation	Yes	14	16	45	14	9	685
	No	34	26	27	5	8	172

Note: Pearson Chi-Square. All items show a significance level of  $p < 0,00$

In relation to the two direct questions about dialogue, the tendencies in terms of satisfied and dissatisfied students move significantly in opposite directions. The strongest displacements are visible at the outer scale point. 34% of the dissatisfied and 7% of the satisfied students strongly agreed on having difficulties with dialogue. 5% of the dissatisfied students, compared to 29% satisfied students, strongly disagreed.

Also, items like ‘presenting things’, especially the ‘formal/informal issue’ and ‘nervousness’ show significantly opposite tendencies. 31% of the dissatisfied students had no problems presenting things, while 48% had. For the satisfied students, it was the opposite: 65% agreed and 15% disagreed. Compared to the 45% of satisfied students, 23% of the dissatisfied students denied being more nervous than usual, and compared to 26% of the satisfied students, 48% of the dissatisfied students felt they were more nervous than usual.

Table 4 displays results for the teaching staff. Regarding the item ‘functionality of technology’, it is clear that satisfied and dissatisfied staff have very different perceptions. Among satisfied staff, the majority agreed that technology worked fine (78%), while only a minority of the dissatisfied staff (36%) had the same view. We observed a similar result in connection with the question about group exams. Although many satisfied teachers saw no problems with group exams, almost a third did. Although fewer in numbers, a majority of the dissatisfied staff (72%) did experience troubles with group exams.



Another item that shows opposite tendencies is that of students ‘presenting things’. 65% of the dissatisfied and 41% of the satisfied teachers experienced difficulties. 16% of the dissatisfied and 43% of the satisfied staff denied that students had such difficulties.

Table 4: Teachers’ experiences with online exams conditional on overall satisfaction. Percentages.

	Overall satisfaction	Strongly disagree	Disagree	Undecided	Agree	Strongly agree	N
Functionality of technology	Yes	3	13	8	32	46	186
	No	22	29	13	25	11	55
Students’ ICT skills	Yes	1	10	11	38	40	186
	No	4	22	27	27	20	55
Taking care of nervousness	Yes	7	17	14	36	26	180
	No	23	32	8	34	4	53
Formal/informal issue	Yes	28	17	36	16	3	183
	No	15	6	40	21	17	52
Grading	Yes	53	15	23	8	2	177
	No	25	19	33	19	4	52
Reorganizing dialogue	Yes	3	8	38	33	17	178
	No	17	9	41	30	4	54
Group exam	Yes	9	21	19	30	21	114
	No	38	34	22	6	0	32
Presenting things	Yes	30	13	16	27	14	181
	No	9	7	19	37	28	54
Academic guidance	Yes	4	9	32	32	22	183
	No	2	10	239	25	24	51
Preparation for exam	Yes	4	3	19	42	33	183
	No	2	4	16	45	33	55

Note: Pearson Chi-Square. All items show significance level of  $p < 0,00$

Less clear, but still noticeable, are the opposing tendencies concerning how teachers were able to cope with students’ nervousness. 55% of the dissatisfied and 24% of the satisfied staff had difficulties dealing with students’ nervousness, while 38% of the dissatisfied and 62% of the satisfied staff did not. We see surprisingly opposite tendencies for the formal/informal issue. Here, the satisfied staff were more likely to report that students had difficulties with pulling themselves together for the exam at home (38%). Only 19% of the dissatisfied staff agree on these difficulties, while 45% of them disagree.

Other items show a different pattern. For ‘academic guidance’, ‘preparation for exam’, ‘students’ ICT skills’, ‘reorganizing dialogue’ and ‘grading’, satisfied and dissatisfied teachers, despite the significant difference, follow each other in the same direction, showing increasing agreement towards a positive value.

## Complementary analysis of the open text

In the following sections, we present the results of the analysis of the answers from the open text fields in the survey. Firstly, we supplement the quantitative results with a more comprehensive analysis, in which we look for arguments, attitudes and judgments of students and staff related to the three topics: technology, emotional



issues and dialogue. As there are obvious interrelations between the topics, they should rather be conceived as dimensions. Secondly, we try to identify issues that the ten items in the survey did not grasp. Also, these may inspire future survey investigations.

## 1. Technology

Looking at the open texts, the functioning of technology was by far the most mentioned issue. Besides all the purely positive comments of overall satisfied students, there was another group of overall satisfied students who expressed a kind of *relief* that everything worked out surprisingly well. A third group of satisfied students reported some challenging technological issues. These challenges ranged from breakdowns or malfunctioning of the internet, sound and/or video problems and problems with sharing and splitting screens. Most of the time, the malfunctioning was their own problem or that of the co-examiner. When talking about their own annoying technological problems, students mentioned old hard and/or software. In the case of breakdowns, overall satisfied students seem to find other ways, e.g., the use of mobile phone calls, SMS, or using their mobile as a WiFi hot spot. One student remarked that technological issues “did not bother them more than a train delay”. This statement may be an expression of how overall satisfied students seem to tackle the functioning of the digital technology. Some of the overall satisfied students reported that in general they would prefer oral online exams in the future.

The dissatisfied students did not report many concrete technological problems, rather they expressed a general attitude that they did not approve of online oral examinations. Nevertheless, just as the satisfied students, they reported some technological breakdowns, e.g., no or bad video/sound, as well as bad internet. Also here, some students ended up taking the exam by phone call. Most of the dissatisfied students reported that in general they preferred F2F examinations. They gave reasons like missing “personal contact”, missing “non-verbal communication”, personal reasons (“feeling ill doing screen work”) and missing the “atmosphere” and their “peers before and after the exam”. For both groups of satisfied and dissatisfied students, there is a connection between the functioning of the technology and their experience of nervousness. Especially the fact that the functioning of the technology was properly speaking the responsibility of the students, made many of them felt insecure or even nervous in advance.

Dissatisfied teachers reported problems with the technology more often than did staff who were overall satisfied. In the most extreme case, one member of staff reported that a student had to give up because of technological issues. As for the students, quite a number of staff reported technological problems for the co-examiners that affected both the examination and the grading. Another group of dissatisfied staff stated that grading took more time and caused delays. In addition, some staff mentioned a tendency towards “less strict grading” under emergency conditions. Contrary to previous research, cheating in video transmitted examinations was an issue for some teachers. They expressed uncertainty as to whether students may “just be reading from the screen during their oral presentation” or may be supported by others outside the visible video frame.

In general, satisfied staff reported none or only a few concrete technological issues. Technology could also be a challenge for satisfied staff, but they responded that the disturbances could be managed and solved. We can say that they appeared to be more confident with the technological framing of the oral examination. As for students, in this case too, a considerable group of satisfied staff were positively surprised as to how well it worked. Some teachers even felt there was no big difference between online and F2F exams. A group of teachers explicitly supported the idea of having more online exams in the future. They underlined advantages like flexibility, less transport, better time management, a more relaxed situation, and being better able to focus on the student because of the less emotionally disturbing context.

The technological setup has implications for the emotional dimension. Both satisfied and dissatisfied teachers pointed out how personally and emotionally demanding online oral examination felt for them. They



emphasized the number of examinations per day and having suitable breaks - also in the light of possible delays. Even though satisfied staff were generally more positive, both satisfied and dissatisfied staff agreed very much with the argument that examinations using videoconferencing systems restricted their human sensitivity towards the students' emotional and academic well-being, affecting their ability to establish the intended dialogue. This sensibility issue was even more clear when students became nervous and teachers felt that they were not able to help them. When a student became sad or began to cry if they failed or got bad grades, teachers felt their own helplessness, not being able to show compassion through the video conferencing system.

The qualitative analysis of the open text fields in relation to technology shows a wide variety of arguments. While there is a group of students and staff who in general support the possibility of online oral examinations, arguments were put forward by both satisfied and dissatisfied students and staff who support the possibility of online emergency examinations, but fear that this form of examination will become the future norm. These arguments in principle against oral examinations using video conferencing revolved round issues like 'missing a personal presence', 'the intimacy required to professionally decode nonverbal communication', as well as students' nervousness and need for help. One member of staff addressed the alignment issue: How can we assess a social educator student's professional capital in terms of *pedagogy* - which has to do with the proper communication between child and adult - when communication at the exam is heavily restricted by technology?

## 2. Emotional issues

Statistical analyses showed that emotional issues polarized the students. The 'formal/informal issue' even showed significant differences for the conditions 'prior experience' and 'overall contentment'. Analysing the open texts, there were very few students who disliked the home situation for exams. But, the comments of these students were rather harsh. Considering their home as a "safe space", they expressed how "terrible", "boundary-crossing" and "intimidating" it was having a teacher and co-examiner in their private sphere when being put in such a defenceless situation. Even though the majority of the students, regardless of prior experiences or satisfaction, stressed that taking oral exams at home reduced anxiety, nervousness, stress and disturbance and contributed to a calm, tranquil and safe situation. Furthermore, students suffering from exam anxiety, and even one who failed, praised this new possibility of taking exams at home. While a few students complained that they missed their peers (peer interaction and the special atmosphere that supported the mental preparation prior to the exam), the majority preferred not to be disturbed by other students and the general exam atmosphere on campus that normally affects them in negative ways. The lack of the formal and emotionally infectious F2F environment allows for a more purely academic dialogue, in which the student does not feel the pressure of being "intimidatingly" assessed by the examiner and co-examiner. Some of the students were very clear: "best exam ever". They would prefer online oral exams at home in general. Other students mentioned some advantages for their emotional wellbeing, like no stress related to transport, opportunities for better preparation, control over the situation and better performance in general.

In terms of nervousness, there are no clear tendencies in our statistical analysis. However, a third of the students felt more nervous than usual. While nervousness can have many causes, we see no significant difference whether students have prior experiences with online oral examinations or not. From the open texts, we learn that there are students suffering from exam anxiety in general. In their case, minor disturbances (e.g., technical, or time-related) often caused more nervousness. Besides technology as a stress factor, these students clearly expressed the difficulties of not having normal physical contact with their teacher and the co-examiner. They characterized the situation as stressful, unpleasant, unsafe and causing discomfort. What they missed was the nonverbal communication with eye contact, facial expression and gestures. Others became stressed because it was difficult to establish a 'natural' dialogue and to a greater extent they experienced exams as an interrogation.



A third of the teachers reported difficulties with managing students' nervousness, and there is a significant difference in terms of overall satisfaction. This issue is also a major concern in the open texts. The teachers miss the possibility of "sensing the students' mental state", "the nonverbal communication" (e.g., "a smile", "an attentive look", "signalling active listening", "not losing contact while making notes"). Especially when a student did not understand being given a lower grade than expected or even failed, teachers felt the situation as "unpleasant" and "out of reach". In the online environment, teachers felt especially helpless in cases where the student looked puzzled, cried or just disappeared from the screen. One student's video was just turned off, while the teacher and co-examiner could still hear the student crying. In such situations, teachers prefer F2F examinations, where to some degree they are able to comfort the student, follow them out of the room and guide them to the student counselling service.

In relation to emotional issues, we can conclude three overall points. Firstly, many students welcomed the possibility of taking oral exams at home because they felt more relaxed and had control over their safe space at home. However, there were students who preferred F2F examinations, where the atmosphere and social environment helped them to mobilize their exam mode. Secondly, and in cases where emotional issues were at stake, such as students' general nervousness or reactions to failure, teachers felt helpless in an online environment. For some teachers this was reason enough to argue against online oral examinations in general, while others just pointed out the difficulties in an environment that restricted non-verbal communication in terms of expressing empathy and appreciation. Thirdly, it seems that the emotional issue is a very individual matter and may be related to personality issues that we have left out in this study.

### 3. Exam dialogue

In relation to the examination dialogue, we have four direct and indirect questions for the students and for the teachers respectively. The statistical analysis shows that the students were divided on the issue of dialogue, but most often satisfied with the teachers' facilitation of it. From the qualitative analysis of open text fields, we learn that satisfied students, besides their positive judgment of the dialogue, expressed difficulties with "turn taking", "missing eye contact" and noted that the dialogue felt more like "a one-way-communication". Dissatisfied students mentioned the same issues but used stronger language to express their negative experiences with dialogue: e.g., "like amateurs", "grotesque" or "terrifying". Besides the difficulties already mentioned, they missed the "non-verbal communication" and "personal contact" with the examiner and co-examiner, including saying hello and goodbye in a polite manner. They missed the social situation, not only together with the examiner and co-examiner, but also the other students in their group, with whom they had done their preparation, but during the examination were physically separated from. A social educator student who expected to be assessed on relational and broad communicative skills regretted the restricted conditions for physical movement in the digital world. Another student felt the so-called dialogue as an "interrogation" without the "personal" and "human" aspects.

The statistical analysis of the examiners' experiences shows that only 15% had difficulties in reorganizing the dialogue in the online environment. This item shows significant differences for the conditions, 'prior experience' and 'overall satisfaction'. The qualitative analysis of examiners' open texts shows overall similar arguments as for the students. The argument of the dissatisfied teachers was connected to the technological and emotional issues and highlighted the dialogue as "unnatural", "impersonal", "distant", "unfree", etc. They reported difficulties not only with the academic dialogue, but also with its context. It was not easy to "establish a calm and relaxed situation", where "laughing and gentle words" were natural elements when students entered or left the room in an F2F examination. Some satisfied teachers praised the advantages of online dialogue. They felt that the academic dialogue is even improved and makes a deep examination possible. But satisfied teachers also reported that it felt hard, because there was a constant need to 'tell' the student very clearly, using nodding, supportive looks and other such body language.



In the open texts, there are some comments on difficulties experienced with presenting things, which is part of the dialogic situation. Satisfied as well as dissatisfied students reported that the dialogue gets difficult when presenting digital documents in the conference system, because the video frames of the participants become small or disappear. Here again, the interface restricts the participant decoding of the non-verbal communication. While some students had technological troubles presenting digital artefacts, other students reported general difficulties concerning discussing models during examinations. This might be the case because the behaviour used in F2F situations cannot be identically copied to the digital environment. Nevertheless, there are students who appreciate the online examination and took advantage of using a screen for presenting and dialogue.

From the statistical analysis we learned that compared to students, teachers were more critical towards students' presenting things. But in the open texts there are only a few specific comments about that. Apart from technological problems, staff mentioned difficulties concerning presenting a prototype and hearing intonation. The shift from F2F to online examinations does not cause major problems when students are used to presenting stuff in digital formats or when they can use (digital) material from the teaching. One member of staff found that students had better time to "design their own examination table" with notes, flowers and coffee, which removed some of the students' nervousness.

The open texts on group examination dealt with technological, communicative and cooperative issues. Students mostly reported the restricted possibilities of turn taking in the videoconferencing system, group dynamics when not being in the same room and difficulties connected with preparing together in F2F environments and being examined in online environments. Some students just pointed out that group exams require very thorough preparation and clear agreements. Examiners agreed on the same issue and added that it is difficult to decode the interaction between the students in the group from the examiner's perspective. In addition, students were focused on their own performance and seemed to care less about their co-students.

It is difficult in general terms to reach clear conclusions about the question of dialogue in online oral examinations. On the one side it seems to allow for a serious and concentrated academic dialogue, while on the other side, respondents miss the human, personal, bodily and social sides, whatever this means. Obviously, the number of participants plays an important role for coping with the complexity of dialogue under digital conditions.

## Discussion and conclusions

Based on our quantitative and qualitative approaches we reach some central conclusions concerning our research question about how students and teachers at university college level experienced online oral examinations under Covid-19 emergency conditions and what we can learn from it.

To begin with, and in line with other studies (Rambøll, 2020, p. 36), we emphasize the overall satisfaction of both students and teachers with online oral examinations during Covid-19. This is true for technological, emotional, dialogical and preparation issues. To some extent, this satisfaction appears in contrast to the generally critical judgment of emergency online teaching and learning (Georgsen & Qvortrup, 2021). However, it is important not to confuse satisfaction with outcome. We have no data on outcome, but some staff mentioned the possibility that the benchmark was lowered in emergency examinations.

In a wider sense though, satisfaction with online oral examinations can be related to certain forms of emergency teaching practices. In the study by Georgsen, students reported greatest satisfaction with online consulting and feedback from staff as well as with group work (Georgsen & Qvortrup, 2021, p. 10). These didactical approaches share the following central features with online oral examinations: a similar number of participants, a focused task and conversation, the same possibilities of digital sharing, and a similar interface



using the video conferencing systems. In other words, such didactic approaches in online environments seem to be manageable and suitable for the purpose.

We showed that prior experience with online oral examinations only plays a minor role. This may especially be of interest for leaders and decision makers. If prior experience had been more important, the claim might be made that just more practice was needed. On the contrary, for both students and staff, it seems that online oral examinations are not just a question of something to get used to. Nevertheless, there are some indirect indications that some co-examiners had difficulties. We have no data from co-examiners, but their difficulties could be related to lack of experience with online teaching and the conference systems since not all of them come from higher education institutions. Further research must show which factors other than prior experience may be critical.

In relation to the three topics, the more detailed and qualitative analysis showed a more complex and polarized picture. The functioning of the technology is critical for the experience of satisfaction or dissatisfaction. Most students and staff had generally positive experiences with the functioning of the technology during the emergency online oral exams. We did not find critical comments on the technological infrastructure of the institution. While satisfied respondents, who may have had troubles with their own technology, coped with it and solved the malfunctioning, dissatisfied students experienced more serious breakdowns that caused confusion, nervousness or made them give up the examination. Students found it stressful to have the responsibility for the proper functioning of the technology. Although they must have sufficient experience with video conferencing from the emergency teaching, all kinds of problems can arise, for example with the internet connection. Of course, problems with both hardware and software can be solved, but for students this is a question of finances. Further research must show whether the level of digital competence plays a role and makes a difference in future online oral examinations.

Around a third of the students were more nervous than usual. As documented above, this is not a matter of prior experience, but rather of overall satisfaction. More research is needed to identify reasons for this nervousness that could be connected to general issues like personality, or exam anxiety, or more concrete issues like new exam conditions or insecurity about the technology. In relation to the two other questions we subsumed under the emotional issue, our data shows a polarized picture. On one hand, a considerable number of the students felt safe at home and were able to prepare themselves without disturbance. Even some dissatisfied students reported the advantages of being at home for the examination. Some even wanted online oral examinations in the future. On the other hand, a third of the students disliked the home situation. Either they felt it intrusive, or they missed their peers and examination atmosphere on campus to help them get into an exam mood. Regarding the clash between formal and informal aspects, we even see a significant polarization between prior experience, or not, as well as for overall satisfaction, or not. Further investigation is needed to find out whether it is possible to prepare students better regarding emotional matters and on how students could cope with the formal/informal conflict of being at home, or whether this issue is of a more principal character. Maybe individual students just have different preferences.

For teachers, the main issue in relation to emotions is their helplessness in situations where students were nervous, frustrated or even crying because of bad grades or failing. They claim that F2F examinations would allow examiners to react more sensitively and adequately than in online environments. Future experiments must show whether it is possible to develop strategies to comfort nervous students before and during online examinations. However, it is an open question how far the examiners' responsibility reaches in this matter. It seems this question is connected with the personal style and ethos of the examiner.

In general, the experiences concerning dialogue were positive, but the respondents were divided on the different items. While some students were able to perform satisfyingly and seemed to have control of the situation, other students missed the F2F contact and the broader range of non-verbal communication in terms of performing better. The same overall positive picture emerges for the staff experiences. On the one side, there



are staff that welcome the focussed academic dialogue, and on the other side, those that miss what they call a more personal and human dialogue. We cannot conclude that the ideal of an empathetic dialogue in online oral examinations was threatened. Nevertheless, and especially for group examinations, there were some difficult issues, such as turn taking and non-verbal communication between students. In online environments, the problem is not distributing a fair share of talking time to all members of the student group, but that spontaneity in interaction, through which students supplement and complement each other.

Underneath the actual survey questions and comments of the respondents, there appeared a controversy in principle on the level of personal preferences. There are students and staff who advocate future online oral examinations. Their main arguments stress flexibility and on the students' side the possibility of being at home in a comfortable environment where you can concentrate. Nevertheless, there are students and teachers who do not wish online oral examinations to be the new normal. Their key arguments highlight the lack of personal contact, factors such as personality and individuality in the encounter, and restricted non-verbal communication. Such arguments do not have any basis in the legal requirements concerning assessment in higher education, but are issues of personal style, preferences and a personal ideal for oral examinations. So such arguments for rejecting online oral examinations have to be assigned to principal and value-based grounds. Probably such respondents would not change their statements solely by getting more practice and improved ways of carrying out online oral exams. One examiner who rejected online oral examinations claimed that personality and individuality are key issues in terms of an 'objective' assessment. Further, he argued, this kind of examination represents a disadvantage for some students. In order to treat an individual student fairly, so goes the argument, they have to be treated by being given individual attention, respect and by being taken care of. This teacher was concerned about their own professional ethos. Whether online or F2F oral examinations may favour, or be to the disadvantage of, certain types of student is still open for investigation.

Finally, and considering the overall picture of positive experiences, the matter of individual preferences as well as the students and teachers who welcome online oral examinations, we ought to consider whether online oral examinations could become a free choice possibility in the future.

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<sup>i</sup> Through the whole text, we use the term teacher meaning all teaching staff at university colleges. In examinations, the teacher acts as examiner.

<sup>ii</sup> Discontentment can also be the result of other issues than difficulties with strictly online oral examination. Some students are discontent because they in general are unsatisfied with their teacher, their teachers' way of posing questions or other behavior the students felt inappropriate.