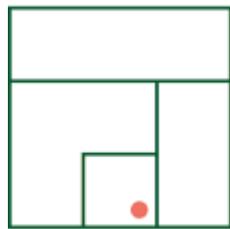
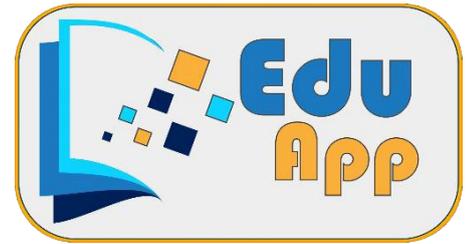




Erasmus+



SOSU
Østjylland

Questionnaires report

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Introduction

SOSU Ostjylland is the second largest social and health care college in Denmark. We provide different educational programs - as well as supplementary training of educated staff members - for social and health care institutions and for home care for elderly. Besides we educate and train staff for the child care sector. We provide VET education and youth education including also EUD10 – 10th grade of the primary school. We continuously develop innovative pedagogic and didactic training material and organize work practice, and we work closely together with the employers in the field. We have more than 25 years' experience in training and further education of care staff and since 2007, validation of prior learning has been a part of our activities. We have about 150 fulltime employed staff members and 20 external professionals connected to our daily praxis. The total amount of learners is about 1200 full-time students and about 2.000 professionals already employed and participating in shorter or longer supplementary training courses. Our students are in the age from 15 to 60 years old, and have more than 50 different ethical and cultural backgrounds.

As a partner in the EduAPP project, SOSU distributed questionnaires to teachers, students, IT responsible and school management. The goal of the questionnaires is to gather data about the teachers, students, IT staff and school manager about the impact of COVID-19 pandemics in teaching and learning and identify possible suggestions to incorporate in the EduApp.

Participants

The table below presents the number of participants of each segment og respondents.

Table 1. Number of participants for each type of questionnaire.

Type of questionnaire	Number of participants
Teachers' questionnaire	10
Students' questionnaire	42
IT' responsible questionnaire	2
School manager' questionnaire	1

Methodology

The questionnaires were applied from 25 September to 12 October 2021. The collected data were exported to a Microsoft Excel® worksheet for quantitative analysis. Data from closed questions were quantified using a relative frequency distribution and presented through graphs. Open-ended questions were categorized.

Results of teachers' questionnaire

Information about the classes and teachers

Approximately 75% of the teachers have from 25 to 30 students in their classes and 60% of the teachers lecture 3 – 4 classes per week (20 – 30 lessons per week).

Experience with ICT for teaching

ICT is mainly integrated in the teachers' subject as a standard procedure at the college, as all students access their learning material by digital means.

All teachers used computers and/or the internet for preparing lessons, class teaching in front of/with students, communication with students and online learning.

All teachers had more than 6 years of experience using used computers and/or the internet at the institution.

In the past few months, more than 60% of the teachers used computers and/or the internet in class more than 50 - 75% of all lessons and 25% used it from 25% - 50% of all lessons.

During face-to-face classes, all the teachers answered that teachers themselves and the students use computers and/or internet in teaching activities.

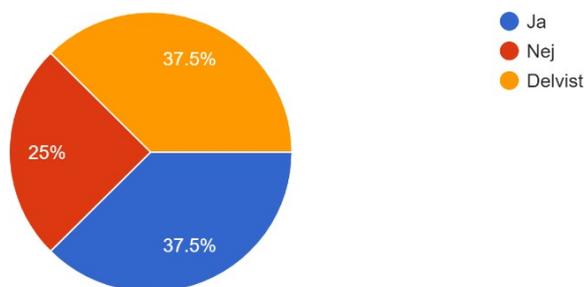
Most teacher answered they had permanent access in classes to a computer or other equipment with internet access. For the teachers, the college has provided them with laptops/tablets, while most students are required to bring their own device unless they have special needs.

The students are allowed to use their own devices for learning at school, such as laptops, tablet, and smartphone.

75 % of teachers have undertaken formal professional development in using multimedia (video/audio equipment) in their teaching by participating in training provide by the college multimedia unit.

School shared vision about ICT use.

Only 37,5 % of the teachers consider that they share the same vision about integrating ICT in teaching and learning with their colleagues and the school head (Ja), while another 37,5 % answer partly (Delvist) and 25 % report not sharing the same vision (Nej).



25% reported that they don't know if the institution has an ICT strategy.

ICT based activities and material used for teaching

There is a very high degree reporting activities using ICT in terms of search on the internet to prepare lessons, Fewer teachers use applications to prepare presentations for lessons, but almost all teachers communicate online with students. A minority of teachers reported they sometimes use ICT to provide feedback or assess students' learning.

Most teachers used materials searched online for educational purposes.

Teachers considered that they are confident in using ICT for several tasks, to a great extent.

Learning activities with the target class

Most of the time 80% of the teachers make presentations, demonstrate and explain to the whole class whereas 50% of the teachers allow students to work at their own pace with other students/study groups.

Teacher opinions and attitudes

80% of the teachers considered ICT has a moderate impact in the collaborative work among students. A majority of the teachers perceived a moderate impact of ICT use on students, because they try harder in what they are learning, feel more autonomous in their learning and understand more easily what they learn.

School attendance and organization in 2020-21 school year

The institution organized courses and internships with physical attendance and hybrid/mixed classes in 2020-21. Most teaching was performed as online teaching however.

87,5 % of the teachers taught from home when the institution was on online learning.

37,5 % of the teachers reported that as many students attended online classes in comparison with physical classes, while 37,5 % responded that fewer students attended the online classes.

Impact of COVID-19 pandemics on teachers' work

The college was closed for 20 weeks, in total, due to COVID-19 pandemics. All teachers were in contact with students during those weeks, mainly via Microsoft Teams and ITS Learning (learning platform).

75 % of teachers considered that the higher education system was not ready to go online due to online teaching in higher education being residual before the pandemic, absence of a planned strategy and equipment, lack of teacher training, and some students do not have sufficient equipment to follow online lessons.

75 % of teachers considered that the institution was not ready to go online due to the fact that the lock down was with immediate effect, teachers had poor previous experience in online teaching, the institution was not prepared with an e-learning team despite the existence of many digital resources at the school. One teacher reported:

“We had just introduced a new learning platform. Teachers were not familiar yet with the possibilities and functionalities of the platform. Most teachers' materials were not prepared for being applied as a 100% online teaching, it was very much learning by doing”.

And other teacher stated that “My school was not prepared but we experienced a high degree of teamwork among teachers and willingness from ICT staff to help when things got difficult.”

62,5 % of teachers considered that they were not ready to go online because, the lockdown was immediate with no time to prepare digital/online material, suitable for a longer period of online teaching or agree on resources to support students on online teaching.

75% of teachers considered that students were not ready to go online because, for example, their experience on online learning before the pandemic was residual, they need social interaction, many had ICT issues.

One teacher argued that “I believe most students had sufficient knowledge and tools for teaching/learning online, however, the psychological factor, being isolated from classmates for

a longer period and with no physical teacher support, dominated the scenario which made students less motivated to learn.”

The next table presents the teachers perceptions about the advantages and disadvantages of online education.

Table 2. Teachers’ perceptions about the advantages of online education)

Advantages and disadvantages of online education	Number of teachers
Advantages	
Better use of digital educational resources	3
Learning flexibility (Students can study anywhere and at any time)	5
More collaboration between teachers and students	2
Improves efficiency, attendance, and engagement.	2
More diversity of learning environments	2
Disadvantages	
More difficult to engage students in online lessons than in face-to-face lessons	5
Emotional disadvantages (such as: the online environment is more exhausting and promotes a sense of isolation)	5
The online education is not appropriate to do practical activities (e.g. laboratorial activities)	3
Less personal interaction and difficulties in group work management	5
Distraction with other online resources	3
ICT access difficulties or unequal access to equipment	2

The next table presents the challenges teachers faced with the transition for online education.

Table 3. Challenges teachers faced with the transition for online education.

Challenges teachers faced with the transition for online education	Number of teachers
The transition from hands-on classroom activities to online teaching.	5
The physical absence of students	3
Time balance (e.g. Balancing synchronous time required with asynchronous work proposals; No time to properly adjust the methodologies to online learning, namely to create more interactive classes).	3
Feedback and special support for vulnerable students	2
Adjusting personal life (e.g. Working non-stop, teaching or helping other colleagues)	5
Managing online classes	1

50% had enough learning resources, but 50% mentioned they had insufficient online resources, namely online teaching material (50%).

75% Teachers considered that online education had a both positive and negative impact in the institution. The next table presents the positive and the negative impact perceived in the institution by teachers.

Table 4. Challenges teachers faced with the transition for online education.

Positive and negative impact perceived in the institution reported by teachers	Number of teachers
Positive	
Teachers developed their digital skills.	3
Everyone learned to be more resourceful and stepped outside of their comfort zone.	1
Teacher and students adapted quickly to the virtual teaching situation	1
Better time management	1
New pedagogical ICT awareness (e.g. both teachers and students are more aware of the opportunities of online learning and expand their knowledge and expertise)	2
Negative	
Many teachers did not accommodate online teaching	3
This sudden change accentuated vulnerable students' learning challenges, student's inequalities and contributed to students' isolation overall.	5
Much time spent on helping students or colleagues with ICT	3

Concerning the student-teacher relation during the COVID-19 pandemics 87,5% of the teachers considered that it changed. Some negative comments regarding the fact that lack of face-to-face sessions was prejudicial to construct a better relationship with the students. However, other teachers mentioned that "in many cases our communication became more frequent and constructive" and "On the other hand, I was more available, I made an effort to make students feel supported in their learning, establishing small study groups, for regularly teamwork".

The next table presents the features teachers missed most from the traditional teaching.

Table 5. Features teachers missed most from the traditional teaching.

Features teachers missed most from the traditional teaching	Number of teachers
Physical teaching spaces (e.g. lab spaces)	5
Social interaction (e.g. human contact; see facial expressions; Any part related to non-verbal communication)	6
Supporting vulnerable students	3
Working with physical materials	1

The next table presents what skills that teachers acquired from the during the pandemic.

Table 6. Skills that teachers acquired from the during the pandemic.

Skills that teachers acquired from the during the pandemic	Number of teachers
Pedagogical ICT content knowledge (e.g. how to deliver online classes; Knowledge of more online resources and online teaching methodologies and dynamics; It was an opportunity to learn more about web tools but specially on how to integrate them in learning activities and how to design distance learning activities)	5
Functionality of online platforms such as Teams	3
Online ICT support	2
Respect the different learning hours of students	1

EduApp application

The next table summarizes the functionalities that teachers suggest should be present in the application, regarding design, user experience and usability.

Table 7. Functionalities that teachers suggest should be present in EduApp.

Functionalities that teachers suggest should be present in EduApp,	Number of teachers
<i>About design and user experience</i>	
Allow students' assessment	0
User friendly (simple navigation; Easy to use and useful for students to use academic activities; not requiring specific learning for its use.)	5
Interactivity	3
<i>About usability</i>	
Export data	1
Feedback mechanism	1
Quality OER	1

Results of students' questionnaire

Access to infrastructure before the pandemic

Before the pandemic, 75% of the students had permanent access to a PC/laptop/tablet with internet connection.

71,4 % of the students answered that the school has not provided them with a PC/laptop for their own use. However, 28,6 % mentioned that the school has provided them with a temporary PC/laptop for their own use.

95 % of students responded that the institution allowed the use of their personal devices, such as PC/laptops, whereas smartphones was only 70 %.

70 % of the students responded that they use material searched on the internet for learning purposes.

Learning activities

Most students have high confidence in, for example, the following tasks: Producing text material in an Office program (e.g. Word) and using emails to communicate/sending files to other students or teachers. However, students only have moderate confidence for tasks regarding; editing online text containing links and images, answering a questionnaire online, organizing computer files in folders or subfolders and creating a presentation with simple animation functions.

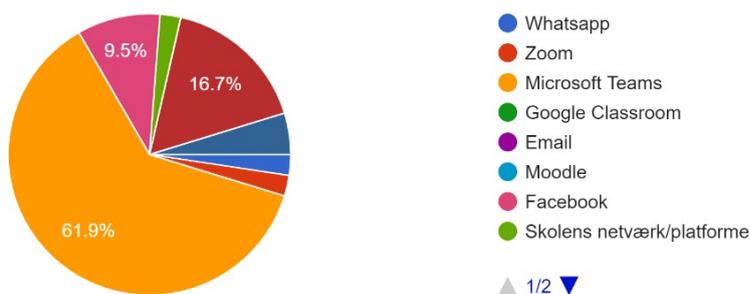
A majority of students respond that ICT to a certain extend has an impact on several features of their learning.

School attendance an organization in the school year (2020-2021)

Most students attended face-to-face and online lessons during the pandemics (blended learning). 52,4 % estimated that as many students attended face-to face classes after confinement, and 33,3 % responded that fewer students attended online classes, while 28,6 % responded that as many students attended online classes, as before the pandemic.

Impact of the COVID-19 pandemic on the use of ICT in school

69 % of the students reported they were in contact with their teachers and 73,8 % with their schoolmates during the weeks of confinement. Microsoft Teams (61,9%) and Zoom (16,7%) were the channels most frequently used to communicate with teachers and classmates.



The next table presents the students' perceptions about the advantages and disadvantages of online education.

Table 8. Students' perceptions about the advantages of online education)

Advantages and disadvantages of online education	Number of teachers
Advantages	
Avoid dislocations	3

Savings on transport	9
More space to clarify doubts/answer questions	2
Improved quality of life (e.g. more free time)	8
Learning flexibility (Students can study anywhere and at any time)	16
Possibility to review the class	2
More comfort /quietness	11
Easier to participate in class	3
ICT learning development	2
Classes are more dynamic	1
Disadvantages	
Less focus and attention (easy distraction)	19
Tiredness (Screen fatigue)	12
Teachers have difficulty in engaging students	5
More workload	10
Less personal interaction / Sense of isolation	16
Difficulties in communication between teachers and students	9
ICT access difficulties or unequal access to equipment (e.g. several persons in a household have to share a laptop/ be online at the same time)	15
Reduced quality of life (e.g. less structure to the day)	5
Hinders the participation and the clarification of doubts	7

47,6 % of the students responded that the educational system was not ready to go online, and 38,1 % considered it was only partly ready to go online.

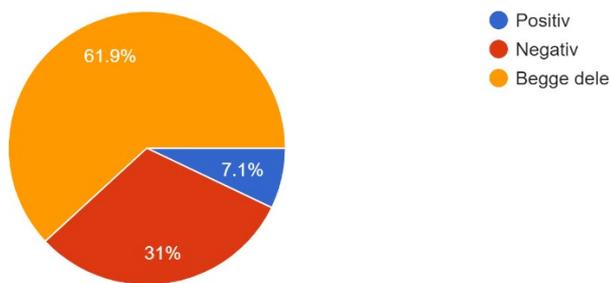
40,5 % of the students responded that the institution was not ready to go online, and 40,5 % responded that it was only partly ready to go online.

35,7 % of the students responded that the teachers were not ready to go online, and 47,6 % responded they were only partly ready for online teaching.

50 % of the students considered themselves not ready to go online, and 31 % considered they were only partly ready for online teaching.

64,3 % of the students reported to be affected by the pandemic.

61,9 % of the students responded that the pandemics had a both positive and negative impact in the institution, while 31 % considered it had a negative impact.



However, 66,7 % of the students responded that the relation with teachers and schoolmates had not changed during the pandemic.

EduApp application

The next table summarizes the functionalities that students suggest should be present in the application, regarding design and user experience and usability.

Table 9. Functionalities that students suggest should be present in EduApp.

Functionalities that students suggest should be present in EduApp	Number of teachers
<i>Regarding design and user experience</i>	
Chat	2
Attractive design	5
User friendly (simple navigation; Easy to use and useful for students to use academic activities; not requiring specific learning for its use.)	15
Interactivity	1
Material to support classes	5
Social inclusion functions	1
A shared schedule	3
Translations	1
<i>Regarding usability</i>	
Forum to talk with students from other schools	1
Chat with teachers	5
A shared schedule	3
Access to books	1
Easy to access menu	7

Results of IT responsible questionnaire

Information about the classes and teachers

The IT are responsible for supporting approximately 3200 students and 150 teachers. The time allocated for working directly with students vary from (25% to 100%) and the time allocated for working directly with teachers vary from 25% to 50%.

Experience with ICT for teaching

Regarding ICT teaching in the institution it is integrated in the subjects.

ICT access by teacher and students

Concerning ICT access by teacher and students, most students have their own devices, while some students are equipped with computers and/or internet and both teachers and students use computers and/or internet.

Experience with ICT for teaching

All ICT responsible used computers and/or the internet for preparing lessons, class teaching in front of/with students, communication with students and online learning.

Access to infrastructure

All ICT responsible have permanent access to desktop computer with internet access or laptop or tablet with internet access. All ICT responsible have access on demand to interactive whiteboard, digital camera, microphones, headphones and a variety of digital gadgets.

The ICT responsible evaluate the quality of the internet signal with 5 (from 1 to 5).

The institution has provided the ICT staff, but not most students with a PC/laptop. However, students are allowed to use their personally devices for learning.

School shared vision about ICT use

A shared vision of ICT strategy is currently in development at the college. The ICT staff and the school head and other staff have until this point not had a common vision regarding integrating ICT in teaching and learning at the institution.

ICT based activities and material used for teaching

ICT responded that they every day, or almost every day, use applications to prepare presentations for lessons, exercises and tasks for students and create digital materials for students.

ICT used materials that were searched on the internet, online material from established educational and material that is available in the school's computer network or database, when teaching with the aid of a computer and /or the internet.

Learning activities with the target class

ICT responded that most of the time they presentations, demonstrate and explain to the whole class, and quite frequently too support and explain issues to individual students, engage them in inquiry-based activities and allow students to discuss ideas with other students and them.

Impact of COVID-19 pandemics on IT work

The pandemic changed the ICTs' regular job tasks because increased teacher, students, and other staff training needs, as well as other regular tasks.

ICT responded that during the lockdown period and intermediate online periods of education, they had more work on supporting teachers to create new learning content, helping students access learning materials. They also had to train teachers into using new applications and programs, such as the new learning platform, Microsoft Teams and Zoom.

ICT responded that teachers and students had shifting attitudes concerning online education during and after lockdown, for some it was a positive experience and for some a more negative experience, or both combined.

The ICT perceptions about the **advantages** online education are:

- Always available, anytime, anywhere.
- Gives the possibility to make on demand ICT support at a distance.
- Keep a record of what happened.

The ICT perceptions about the **disadvantages** online education are:

- Distraction and dependence on technology.
- Impersonal; Increases the psychological distance between participants.
- It can exclude people due to the lack of digital literacy, this is especially the case for a number of vulnerable students.

ICT responded the **educational system was not ready to go online** because "there is still a need to prepare schools to transform the face-to-face classroom teaching, to an online version". As with all changes, there are practices that can be improved and optimized.

ICT responded their **institution was not ready to go online** because there is of "insufficient knowledge of a new learning platform, lacking digital skills and staff, teachers and students needed more time to learn how to use the tools correctly".

The challenges that the ICT reported regarding the change to online education were "the adaptation, usability and availability of digital technology" and a "Respond to all requests made regarding the use of equipment and software".

ICT responded that online education **had a more positive impact in the institution**, despite the challenges mentioned, because "the institution was able to respond to the challenge of online classes" and "made it more digital and therefore more up-to-date".

EduApp application

The functionalities that the ICT consider EduApp should have concerning its design and user experience are an **easy to use and appealing interface**. Regarding its accessibility and usability; the EduApp should be **user friendly**.

Results of school manager's questionnaire

Global characterization

The institution is in a city/urban area (with 350.000 habitants) and has quite a number of vulnerable students (estimated 20-30%)

School attendance and organization in the school year 2020-2021

The institution organized courses with physical attendance in 2020/21, with hybrid/mixed classes, and with physical internships. The teachers taught from home and there was a perception of just as many students' attendance in online classes than in face-to face-classes.

ICT use in COVID-19 pandemic

The institution has internet access through optic fibre. The ICT equipment of the institutions is maintained by the institution own ICT staff and servers by external companies.

During 2020-21, the institution had (as before) its own website, school email addresses for all teachers and students (Outlook).

The institution has a virtual learning environment (ITS Learning) that can be accessed from outside the school by the students and teachers.

Information about teachers using ICT

Teachers of the college all have a PC/laptop/tablet and mobile phone provided by the college. Most teachers have created their own courses in virtual environments, used online platforms (ITS learning), asked students to use ICT in doing homework or classwork, were involved in blended learning/e-learning.

In the past two school years (2019-2021), the teachers have undertaken professional digital development in several themes.

The institution has an ICT coordinator.

The institution capacity to provide ICT teaching and learning was to a greater extent affected by a very limited time schedule to accommodate to a virtual reality, not sufficient time to get to know a new learning platform and lack of adequate teachers' skills, insufficient technical support for teachers, insufficient pedagogical support for teachers, lack of adequate content/material for teaching, lack of pedagogical models on how to use ICT for learning. The institution's capacity to provide ICT teaching and learning was somewhat affected by insecurity and doubts of how to transform traditional classroom teaching into pure online teaching overnight and the fact that most teachers were not keen about the use of ICT in schools.

The institution capacity to provide ICT teaching and learning was not affected by insufficient internet bandwidth and speed, the parents' perception of the use of ICT, the perception regarding the benefits concerning the use of ICT on teaching.

School strategy about how to use ICT in teaching and learning

The institution is currently working specifically on a strategy of the use of ICT for pedagogical purposes, a policy and actions to use ICT for teaching and learning in specific subjects and a specific policy or program to prepare students for responsible internet behaviour.

The institution is likewise working on a strategy for the use of ICT for teaching purposes, a specific policy about using social networks for teaching and learning, a specific policy to promote cooperation and collaboration among teachers, scheduled time for teachers to meet to share, evaluate or develop instructional materials or approaches.

Opinions about ICT use for educational purposes

The respondent strongly agrees with all the uses of ICT at the college for educational purposes.

Opinions about ICT use for educational purposes

Teachers are the main responsible for determining/creating course content, selecting teaching methods, deciding about teacher training and selecting learning resources in the institution. The college management is responsible for procuring ICT infrastructure and hardware.

Impact of the COVID-19 pandemic on the use of ICT in school

During the COVID-19 pandemic, the institution was closed for 20 weeks. During those weeks, the institution was in contact with the students and their families, mainly through ITS Learning.

The **advantages** of online education are more digital inclusion, digital transition, and access to more global information. The **disadvantages** of online education are lack of social interaction, inadequacy for applied and practical contents, the need for providing additional skills and lack of support for especially vulnerable students.

The Danish higher education system was not ready to go online due to a lack of digital readiness among teachers and somewhat impaired access to suitable online teaching material and last but not least, a very short transition from traditional classroom teaching to online teaching.

The institution was not ready to go online because the same reasons as the above mentioned. The perceived weakness with the change to online education was the lack of time to prepare teachers and for quite some time in the beginning; an overload of work for ICT staff to meet the demands of digital support.

Online education though had a positive impact on the institution because it brought more technological transition and enabled teachers digital upgrade.

Teachers' and students' feedback about the online education during the lockdown and afterwards, was collected. Students pointed out the necessity of some teacher to have training in e-learning teaching. Teachers valued the possibilities that comes with the use of the new technologies.

During the lockdown and the following months, what was, in your opinion, the most difficult tasks were to organize the school activities (online, hybrid or with physical attendance)

The development of educational resources and to organize practical activities into digital online activities.

EduApp application

The functionalities that EduApp should have concerning its design and user experience are the possibility to easily access learning material, class schedules and access and submit study tasks.

Implications for EduApp application

The results of the questionnaires suggest that the EduApp should:

1. Have a **easy to use and appealing interface**
2. Have an **attractive design**;
3. Be **user friendly** (allow a simple navigation; easy to use and useful for students to use academic activities; not requiring specific learning for its use; easy to access menu).
4. Allow **interactivity**, and not only present information for the user;
5. Have **social interaction** and **social inclusion** functions;
6. Have a **schedule** that the users could see and share;
7. Have and **send/submit tasks** function;
8. Allow the **interaction with teachers-students / students-students**