

# 20 Covid-19 Impact on Education at Universities and Higher Education in Sweden 2020

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## 20.1 Introduction

A text of some aspects how Covid-19 affected university education and higher education in Sweden 2020 when covid-19 became widely known in Sweden during winter 2020. The big impact coincided when it was winter holiday for primary and secondary school in the Stockholm area week nine 2020. During this winter holiday many had been for skiing in the Alps and were suspected brought the infection back home. A general spread of infection in Sweden was known from the middle of March 2020. [1]

The general way to prevent the spread of infection was - to keep the distance to other people - to wash your hands often - and to stay at home at slightest disease symptoms. Another official exhortation was to work from home if possible to reduce congestion in workplaces and public transport. [1]

## 20.2 Covid-19 impact on educations at Universities and higher education

During the month of March 2020, it was reported that schools were closed in many countries in Europe and in many countries in the rest of the world. In Sweden, the government reported March 17 that from March 18 the teaching at universities and higher levels not would be conducted on school premises but instead by distance learning in order to reduce the spread of infection. The decision to close the teaching premises at the universities to instead switch to unprepared distance learning meant a major disruption for both students and teachers to find new forms of work. [2,3,4]

During the summer of 2020, the spread of infection decreased to increase again during the autumn and new measures were decided before the autumn term. On 15 June, the government announced that the recommendation would be eased so that university studies are partly conducted at a distance. [5]

The Swedish universities are state-owned and the education is free of charge, apart from course literature that the student has to pay for. In addition to student loans of SEK 72,424 per term, full-time students can receive study grants of SEK 18,106 per term. The student loan where previously limited with regard to the student's other income [6]. Due to covid-19, the rules were changed so that the student's other income did not affect what the student could receive in financial study support [7]. The purpose of this was that people who became unemployed due to covid-19 would be given the opportunity to further their education in universities and colleges.

The total cost for the state-owned universities was approximately SEK 74 billion before covid-19. In the next few years, more students are expected to apply to the university to start an education or to retrain and develop previous skills. The government will therefore provide SEK 223 million to universities and colleges from 2020, which is estimated to correspond to approximately 2 600 full-time students. In the first instance, new funds should be used for educations where it is judged that there is a lack of competence, but funds can also be used

to expand educations where it is judged that there will be an increased demand for study places. The increased resources should also be used to expand education that can make it easier for people who need to adapt to new conditions in the labor market. In response to the pandemic, the government is investing a total of SEK 310 million, including student funds, so that more people will have the opportunity to study at the university. From 2021, approximately 620 million SEK will be added for more students at the university, including study grants, which is estimated to correspond to just over 5,200 full-time students. [8, 9]

The reason for the increased funding was that 13% more people applied for training places at universities as a result of the labor market becoming difficult in the wake of covid-19, especially for young people without higher education. [8]

A student in Sweden is offered approximately 11 hours per week during the first term at the university, which is among the lowest in Europe. The number of teacher-led teaching varies between different courses from about 15 hours per week in certain social science subjects down to about 7 hours per week in literary studies and history. [10]

"Universitetskanslersämbetet", Ukä, is a government agency that mainly examine is the quality of higher education, by monitoring and analyzing trends in higher education. UKÄ has been commissioned by the government to follow up the consequences for the activities in universities in connection with decisions and initiatives taken in connection with the new corona virus. The follow-up shall include the effects of the transition to distance education and the initiatives that have been decided by the government with regard to, for example, the expansion of the activities that that to be hold by the universities. [11, 12]

In the autumn of 2020, UKÄ reported that nine percent more graduated and that five percent more novice students start to study at universities and colleges compared with the previous academic year. Among the explanations that UKÄ has mentioned for the increased number of students is an increased tendency to graduate due to the labor market in new employment more and more requires a degree, but also due to Covid-19. [13, 14]

## 20.3 Impact on students

Sveriges förenade studentkårer, SFS, is an association of around 50 student unions at Swedish universities and colleges, which together represent approximately 340 000 students. In December 2020 the SFS left two reports, one about how Covid-19 affected students and in another report with the title "Högskolan kommer inte att vara sig lik - covid-19 påverkan på högre utbildning 2020 och framåt" or translated "The University will not be the same again-covid-19 impact on higher education in 2020 and beyond" [15, 16]

A survey at the University of Stockholm showed that 63% of students considered lack of social contacts was the single most important factor that affected their studies most negatively. [17]

A survey of students conducted by the University of Stockholm showed that the motivation of students had dropped from 89 percent at the beginning of the course to 68 percent when the course ended. According to the same survey, 75 percent of the students had considered that they had been as involved in the conducted online teaching as they had been in an teacher-led teaching. [17]

The report "How will the Corona Pandemic affect students" or translated "How does the Corona Pandemic affect students?" is an SFS compilation of questionnaire responses from students at ten Swedish universities in the spring of 2020. [16]

The focus has been on the student's well-being. The report concludes that many students experience negative stress, increased loneliness and anxiety. It is also judged that there is a declining study motivation and declining quality of education, but that the higher education institutions generally handle the situation based on the conditions well. (11)

In the report "Högskolan kommer inte att vara sig lik - covid-19 påverkan på högre utbildning 2020 och framåt" of SFS, the students think: [15]

- Practical elements has been more difficult
- Deficiencies in legal certainty at examinations
- Deficiencies in students' work environment
- Loneliness and mental illness among students
- Educational shortcomings
- Difficulties in adapting teaching for students in need of special educational support
- Impaired opportunity for interaction
- Lack of communication from universities and teachers
- Lack of technical prior knowledge among teachers and students
- Lack of technical equipment, poor internet connection and Zoom problems

In the future the students will see the following changes will remain:

- Digital and pre-recorded lectures
- Less traveling
- Higher workload for students
- Changes in the pedagogical structure of courses

In the future, students see the following changes will be heard:

- Practical moments via Zoom
- Exam via Zoom
- Total lack of campus-based elements

The students see great advantages in being able to take part in lectures that are recorded with the opportunity to watch complicated sections several times and be able to skip what was considered less interesting. Distance education provides the opportunity to study where you live without to have to move to cities where the universities are located which is economically advantageous and provides opportunities for more students to participate in higher education. [15]

SFS also report that students at universities see that universities may need to upgrade the premises.

The partnership between universities could be improved to enable training package where lectures and examinations not occur at the same time to increase the opportunity to bring in international lecturer. Changed view of the role for teacher from knowledge transferor to knowledge facilitator. Higher Education units should be given increased resources to handle the dual task of strengthening the teachers in their pedagogical and digital teaching skills. Legal obstacles as far as possible to be removed to open and share course materials to bring various digital learning management system to counter the emergence of a closed community knowledge. University management should, to a greater extent than today, systematically ensure that higher education credits correspond to students' workload and not funding allocation, focus is needed on students with special educational support. [16]

SFS also mentions that the purpose of higher education is not only for the acquisition of knowledge but also for the students to acquire a network and to stay in a broader academic environment with the generic knowledge it entails. [16]

## 20.4 Impact on teachers

At the University of Stockholm with 27,000 full-time students, the university decided to switch to digital teaching and digital exam as far as possible. The goal was that courses could be completed as far as possible. The course management had to prepare new forms of examination where it was possible to do so. The universities were given the opportunity to extend the time for exam of the spring semester's courses, which started around January 20, 2020 and normally ended on June 7 2020 until 31 August 2020. The following day September 1, 2020 the autumn term started. [18]

The Swedish magazine "Universitetsläraren" had on the September 23, 2020 an article "Universitet och högskolor klarade omställningen", translated "Universities and colleges managed transition" where it was judged that the transition to distance learning has worked beyond expectations. [19]

One reason why it has worked well has largely been due to the teachers. For the teachers, it was important to be able to provide good education. One big concern the teachers have had was that the exam was to be held at a distance and that could lead to cheating. There have also been quick decisions at universities in general. [20] During the term most of the teaching switch to online teaching. Of the teachers at the Stockholm University 69% considered that entailed an increased workload. [19]

"Karolinska Institutet" – a Swedish medical University noticed that in the year 2020 the percentage that passed the exam on distance has been higher than the corresponding written exam earlier years. They also state that the number of disciplinary cases and suspensions has been many times more compared to the same period last year. [21]

The Swedish magazine "Universitetsläraren" has an article in which Birgitta Bergvall-Kåreborn, principal of Luleå University of Technology, is predominantly positive about how the education could be carried out despite covid-19. Several universities in Sweden has already, before Covid-19 conducted courses as distance learning even with distance exam. By this the universities and students had the resources and experience to solve problems for courses that not were scheduled for distance education and exam. [20]

Several new unexpected collaborations have been taken place within the universities to solve the problems. Previously, the attitude was that in the education sector it is difficult to implement new technological ideas to educate but covid-19 has shown that it is possible. Anna-Karin Andershed vice-principal at the Örebro University tells to the Swedish magazine "Universitetsläraren" that she believes that covid-19 will lead to a permanent change in how decisions can be made internally and in many new ways of working. [20]

## 20.5 Discussion and conclusions

As in many other sectors in our society, this pandemic will probably lead to long-term changes because they have now been forced to try something new where some things have worked out well and others have not.

Distance education have been around for a long time, so the concept is not new, nor has a combined distance learning with a lesson/laboratory approach been something new. What has happened is that virtually all teaching and examination has been converted with a short foresight as well as large parts of other administrative work, which has been done with satisfactory good results.

The students at Swedish universities are prepared for the fact that a large part of the studies are self-study. Since restrictions were imposed in mid-March 2020, the teaching for that spring term had been running for about two months. During this two month the students had started their studies and personally met their teachers and come into personal contact with other students with whom group work would be carried out. These circumstances and a general digital habit allowed students quickly to embrace an expanded digital way of working. For the students, covid-19 did not mean an unmanageable major change in teaching in general.

UKÄ has been commissioned by the government to investigate the consequences and future effects that the pandemic will have for higher education in Sweden. So far, most of the material that is easily accessible now is articles and survey of students. In the surveys that exist, the answers may not only reflect the students' experiences of the changed form of school. The responses have probably also been influenced by the general recommendations not to meet other people, as well as restrictions on entertainment and travel.

It appears that it has been an increased workload for teachers to change the form of teaching and ensure a legal certainty for examination. The number of reports of cheating has increased and the number of students who pass the exam has increased when the examination takes place at distance.

It has even been possible to have regular examinations in practical subjects such as chemistry because the education is not limited by the general restrictions it does not count as meetings and therefore practical elements can be hold on the school premises.

During the month of May 2020, the restrictions for conducting campus studies decreased, but there was still expected that as much of the education as possible should be distance learning. Laboratory work and teaching could be carried out on campus if it was carried out in an infection-proof manner. This was clarified in the autumn of 2020. The reason for this was that the teachers could observe that the students had enough knowledge and that there was no cheating.

One way of teaching that I believe will increase in the future is the one that is similar to the concept " flipped classroom " [22] where much of the theoretical teaching will take place via digital media that can be pre-recorded. In my guess, this will be interspersed with Workshops to be able to reflect more and process the material either on campus or digitally. The format of the lectures will probably also change from being the usual 2 x 45 minutes to being shorter and touching on one part per section or clip. Not all education/courses are the same in terms of teaching and it will probably affect how teaching is conducted, for example between the difference between how teaching in economics and medicine is done.

What I have noticed when reviewing courses with distance learning in previous years is that several of them have had a exam on Campus in addition to assignments individually or in a group. There have also been distance courses with only cross-examination questions, hand-in assignments, group assignments, home exams and regular exams. The exams had a time limit where the answers must be sent in by e-mail with a shorter time for response than for traditional regular exams. With the new technology, it has been possible to monitor the students when they complete the degree exam, for example through video or audio recording. Even if the technique will be improved for monitor the students writing exams at distances, I still think regular exams in a monitored room will be necessary in the future as well. If there is opportunity will the ones with wrong attitude will cheat and it easier to find loopholes in the technology when writing exams on distances.

There are different conditions to take into account, for example such as different educations have different conditions for distance education and that students have different preferences for what the is best way of learning. For example, students have chosen to stay after lessons in the school 's premises to discuss, solve problems, or just to socialize outside of class. Other students have chosen to skip the optional lectures and just attend examinations. The students have different preferences for learning and that will continue to exist regardless the pandemic. I believe that it may be more digital to be good for some students and some students may

prefer traditional lectures. On the lectures other ways of teaching may be needed to make the full use on digital classes as well technical equipment as microphone.

In many ways, I believe that the traditional teaching will be the standard in the near future because there is a tradition of that and that the majority of the teachers are used to that and that they have a ready-made teaching material ready. For students that participate on the campus where there are premises it can be easier to know that the students are committed students because they have set aside time to attend. The students can feel connected and bring the opportunity to discuss with other students and that can give the students more than just what is learned in the course material. My experience from the Swedish "Linnéuniversitet" that have both programs and courses that use distance learning as well as traditional teaching. The students can choose to take part in the lectures or via the link. Both alternatives had worked well. The "Linnéuniversitet" have courses with regular compulsory modules on campus. That could be one module per month. I think that more Swedish universities will follow the approach that is used at "Linnéuniversitet" or approaches similar to "flipped classes".

In my opinion, the digital tools need to be improved in terms of microphones and speakers for more dynamics in the voices in order to better enable discussions in groups so perhaps more students can speak at the same time and make it is possible to overhear others and be able to read other people's body language and facial expressions.

## 20.6 References

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