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THE SPACE OF CONDITIONS AND EXPERIENCES AMONG SWEDISH UPPER SECONDARY STUDENTS DURING COVID-19 DISTANT SCHOOLING

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RÉSUMÉ

Dans cet article, nous examinons les conditions sociales et l'expérience de l'enseignement à distance des lycéens suédois, pendant la crise sanitaire de Covid-19. La question que nous nous sommes posée est la suivante : comment peut-on comprendre l'expérience de différents groups de lycéens de la crise sanitaire, compte tenu de la structure sociale du système scolaire suédois et du processus de digitalisation ? La construction de l'étude et des concepts comme « capital » et « espace d'éducation » émanent de la sociologie de Bourdieu, alors que les concepts de « classification » et de « cadrage » sont inspirés par Basil Bernstein. À travers l'étude par analyse multiple des correspondances d'un questionnaire destiné à 3 726 lycéens, il semble que l'expérience prépondérante est plutôt négative et qu'elle s'est construite à travers des conditions très inégales. Si les élèves les plus privilégies ont tendance à être les plus négatifs, ceux de classe populaire et issus de l'immigration, disposant des pires conditions en termes d'outils numériques, de soutien et d'aide de la part des enseignants, entretiennent un rapport plus distancé et sont les moins négatifs. Ces différences sont analysées en termes de rapport de dépendance et d'accumulation de capital culturel.

MOTS CLÉS

Pandémie Covid-19 – Lycée – Espace d'éducation – Enseignement distanciel – Conditions inégales.

ABSTRACT

We examine Swedish upper secondary students' social conditions for and experiences of distance education during the Covid-19 pandemic crisis. The overarching question is: how can different groups of students' experiences of distance education during the Covid-19 pandemic be understood in relation to the upper secondary school's social structure and to digitalisation? The design of the study and the concepts of capital and educational space are taken from

Bourdieu and the notion of classification and framing from Bernstein. The analysis, which draws on a questionnaire with 3 726 student responses and is based on specific Multiple Correspondence Analysis, shows an overall negative experience and unequal conditions. The most privileged students tend to be most negative, the immigrant working-class students have the worst conditions in terms of digitalisation and support and lacks help from teachers, while the Swedish working-class students seem to take to distance education more easily than other students and are the least negative. These differences are understood in terms of dependency on schooling and accumulation of educational capital.

KEYWORDS
Covid-19 Pandemic – Upper secondary school – Educational Space – Distance education – Unequal conditions

Introduction

Although the previously unknown virus Sars CoV-2 (Covid-19) quickly developed into a pandemic with almost no countries being spared, national strategies to counter the spread have shifted. The recommendations to the population from the Swedish Public Health Agency soon turned out to differ from those of several other European countries. The "Swedish strategy" became a widespread concept, especially internationally. While other countries backed up restrictions with legal sanctions, Sweden made recommendations (Christensen & Laegreid 2021).

In March 2020 the government decided to recommend distant schooling for all upper secondary schools and higher education institutions. However, pre-schools and primary schools would remain open[1]. From March 2020 until the autumn of 2021, all upper secondary education would be carried out mostly through distance learning. Upper secondary school teachers and students would thus have to quickly adapt to digital teaching. Digital tools had long been used in parts of the teaching, but now all programmes, study oriented as well

1 In the beginning of the autumn of 2020 things seemed to get better and normal activities resumed in upper secondary schools, but in the beginning of November 2020 under the so-called Second Wave, upper secondary schools were authorised once again to use distant schooling. From 7 December 2020, the general advice was that upper secondary schools should switch completely to distant schooling once again. In practice, this meant that the upper secondary schools for the most part closed during the period March 2020 to the autumn of 2021 and switched to distance education.

as vocational oriented, would be conducted at a distance (Olofsson, Fransson & Lindberg 2020). Even if the upper secondary school is a non-mandatory school, there is a quasi-necessity to graduate from this level to either continue to higher education or to enter the labor market. This non-mandatory circumstance strengthens personal responsibility for each student. The common life they were used to from school, being together with others, following the same pace, structure of lessons and breaks, now was evaporated. Not only being responsible for solving the specific tasks proposed by the teacher but to be the one to carry out, to organise and to structure the school day on. To recontextualise the pedagogic practice from school to home.

The context for this change, the upper secondary school in the Swedish education system, has been characterised since the 1990s by a market system that has exacerbated the social differences. The investment in digital technology in the school area in Sweden, from an international perspective have been far reaching. From these more profound changes – increased social differences and digitalisation – we study the outcome for upper secondary students of the sudden, unprepared, transition to distance education. So the interesting question for us is: in what way has the closure of the upper secondary school affected social differences during the pandemic?

The interest in a number of countries in studying the outcome of the school closure during the pandemic led to a jointly formulated questionnaire, which we as Swedish researchers adapted and designed for our specific conditions, and which we subsequently intended to distribute to all upper secondary school students in Sweden. The responses from 3 726 students thus form the basis for the analysis presented in the following.

Educational capital, educational space, classification and framing

The questionnaire enables analysis of the distribution of educational assets linked to practical assets such as computers, connection, space, etc.; but also of students' subjective experiences of running a school at home. This analytical material requires entirely different kinds of theoretical tools. For an understanding of the distribution of educational assets, we have turned to the Bourdieu tradition (Bourdieu

1989). To understand the challenge to students of having to solve the expected tasks by themselves, we have chosen to use the now classic concepts of Bernstein's sociology: classification and framing (Bernstein 1971). The analysis of the questionnaire reveals the extent of conditions and experiences among Swedish upper secondary students during Covid-19 distant schooling. The conditions and experiences, ie. the ability to independently solve the expected tasks is related to inherited and acquired assets in the field of education. The use of the MCA method (specific Multiple Correspondence Analysis) enables an analysis of differences and similarities between different student groups regarding conditions and experiences of distance education. Students' different characteristics such as social origin, gender, educational programs, housing and so on are related to the experiences of distance education.

We have found it convenient to apply also the concepts of classification and framing, which make it possible to problematise the students' experiences that are linked to the ability to decode purpose, and to select and structure the tasks the teachers provide. Also, their ability to, in time and space, delimit the scope of the tasks, with less instruction and support from teachers and peers. Communication, and thus feedback from teachers, is weakened. The shift to distance education, the recontextualization of pedagogical practice, is close to what Bernstein defines as invisible pedagogy, ie. a 'system of message' characterised by weakened classification and framing. Bernstein's theoretical project aimed to link microprocesses (language, transference and pedagogy) to macroprocesses – how cultural and pedagogical codes and content teaching are related to social classes and power relations. By analysing the students' experiences of distance education in relation to their different social conditions, two sociological traditions are united; the concepts of classification and framing are put in relation to capital and social structure.

Prerequisites for a digitalised teaching

The government decision in March 2020 to recommend distant education for the upper secondary schools, covered all upper secondary schools, regardless of municipal or independent ownership. For school management, teachers and students, the decision came unexpectedly

and suddenly. The overall aim of stopping the spread of infection at all costs left everyone concerned having to quickly find pedagogical and practical solutions to the situation that had arisen. Although the generation of Swedish students belongs to those who, according to the PISA survey, spend the most time in front of the screen both inside and outside the classroom, it is relevant to reflect on the conditions for this sudden transition to digital teaching (OECD 2015).

Sweden has distinguished itself by being at the forefront when it comes to digitalisation both in society at large and in schools. In a number of different government investigations in recent years, including *For a Sustainable Digitalised Sweden* (Regeringskansliet 2017), the Minister for Housing and Digitalisation emphasises that "The overall goal is for Sweden to be the best in the world at using the possibilities of digitalisation." (Regeringskansliet 2017 p. 1). Sweden must not only achieve a well-functioning expansion of the network throughout the country, but the goal is to surpass all other countries in the digital investment. An important part of the future scenario is the school, and the students' development of digital skills (see #skoldigiplan 2019). The authority in the school area, the National Agency for Education is urged to expand the digital infrastructure, and investments that are predicted to lead to "digital innovations" in a "digital ecosystem". In short, the future is predicted to go digital. The language used in government rhetoric uses words such as "sustainable", "world-leading", "ecosystem", etc.; signal words taken from discourses that suggest visions, whether it is about climate change or the economy, and expresses clear hopes for the potential of digitalisation.

Although digitalisation in recent decades has changed the school's activities, key questions in research are whether the investment in digital skills has not obscured what presupposes these skills? That is, what are now called analog skills, ie. basic reading and spelling skills. If students lack these skills, so do they lack the prerequisites for digital competence, the researchers claim. With students' familiarity with digital technology and with different types of software, platforms, etc., one can be tempted to underestimate the difficulties that students encounter in the transition to distance education. Recurring answers in our study show that students have difficulty in solving the tasks at the

expected pace, that they do not receive the teacher support they need, and so lose focus and motivation. Similar difficulties emerge in other studies on the transition to distance education (Åkerfelt & Hermansson 2021). Without opportunities to deepen our understanding of the teachers' digital skills, is it still relevant to reflect on the extent to which teachers were able, suddenly and without further preparation, to transfer the otherwise ordinary, analogue teaching to digital form? The difficulties the students testify to in our questionnaire study are that the teachers give them too much information, that they do not always understand its purpose, and that they lack support from teachers and friends. These types of difficulties seem to increasingly fall back on students' ability to draw boundaries between different kinds of elements, to set aside proposed time, etc. In other words, to read and interpret the underlying code; abilities that in the analysis of the material would justify a use of the Bernstein concepts of classification and framing. Or to put it differently: changes and evaluations of teaching should be an important area of sociological interest in knowledge (Bernstein 1971). How are the differences and conditions reflected in the outcome of the transition to distance education? What we analytically define as social and cultural background, gender, national origin, living in the city or in the countryside, make changes in pedagogical practice such as the transition to distance education, interesting in relation to students in different upper secondary school programs.

Social differences in the Swedish upper secondary school

To understand how students experience the transition to distance education, a review is needed of what the social structure of the Swedish upper secondary school looked like before the pandemic, and which can be said to be an input value when teaching is transferred to distance education.

Sweden introduced compulsory comprehensive schooling in 1962, and later the cohesive upper secondary school – i.e. with theoretical and practical education gathered under one roof – in 1971, establishing a socially equal school system; which however has become increasingly segregated since then (Börjesson et. al. 2016; Forsberg 2018; Hultqvist et. al. 2018). In the change towards the market-oriented school, with the

introduction of free school choice in 1992, the driving differentiating factor for primary and lower secondary schools has been geographical location (increasingly linked to housing segregation), while for upper secondary schools it is rather the choice of study programs[2].

This field of upper secondary school has been well researched, providing access to sociological data on recruitment to the upper secondary school's various programs, in relation to students' social backgrounds (Börjesson et. al. 2016; Palme 2008; Lidegran et. al. 2018; Forsberg 2018). In summary: the analysis of student recruitment to the upper secondary school programs shows a social and gender distribution that has been stable over time, illustrated in the form of a triangular structure. At the base of the triangle, we find those who choose different specialisations of vocational preparation programs: on the one hand girls interested in areas such as care, nursing, children and leisure, and, on the other hand, boys in construction, vehicles and industry. The parents are more often low-educated, in skilled and unskilled workers' occupations. Unlike the students at the top of this triangle, where we find children from more educated groups such as university teachers, doctors and lawyers. Working-class children to a greater extent choose study programs that are gender-segregated. While at the top of the triangle, we find the educational elite on the prestigious and gender-heterogeneous science program. With the upper secondary school's social structure as a starting point, the intention is to analyse the conditions for conducting distance learning. More precisely: the digital provisions, working-space, peace to work in, and opportunities to independently interpret and solve tasks, etc. The questionnaire has also made it possible to capture students' subjective experiences of distance education, what they experience to study at home instead of at school. how these conditions emerge when the institutional environment itself is missing; when students do not have access to the school buildings, when the school-codified contacts with teachers and school staff are not in place in the same way as before the pandemic. Or, if we return to Bernstein's sociology: when pedagogy is

2 It is important to emphasise that the engine of this development is not primarily housing segregation, which many defenders of the independent school reform often want to claim. Residential areas are more socially mixed than the composition of students, especially in the primary schools in the big cities. See Larsson & Hultqvist, 2018, and Dubet, F. & Duru-Bellat 2020.

invisible with weakened framing and the individual is assumed to be a student in his private sphere, how do these conditions appear when the institutional framework is absent and the students have to carry out their studies on their own? (Bernstein 1996). In the next section, we will clarify how we have proceeded methodologically.

Analysis of the student questionnaire

The starting point for our study is the international questionnaire which in the spring of 2020 was distributed to parents in France, Italy, Spain, England and the Czech Republic and aimed to capture the situation of students and parents during school closures[3]. Unlike in the afore-mentioned countries (as well as several others), only upper secondary schools were closed in Sweden during this period. This deviation from the other participating countries led us to adapt the joint questionnaire to current conditions, and directed it to upper secondary school students instead of parents.

We have taken as our starting point previous research into the social structure of the Swedish upper secondary school which shows how social origin, gender, national origin, upper secondary school program, and geographical location are important dimensions. We have assumed that these dimensions are central to understanding how distance education is experienced; and have thus in the survey chosen to ask about place of residence, type of housing, parents' education and profession, gender, and foreign background, as well as questions about digital opportunities, access to digital tools, connectivity, etc. In addition to these questions, we used the questionnaire to ask about choices of upper secondary school programs, as well as about how students experienced the change to distance education.

The student questionnaire was sent out to principals in all upper secondary schools in the country, who in turn were asked to send it on to the students at their affected schools. Like many quantitative studies of this kind, our questionnaire was also affected by non-responses. Since all schoolwork was conducted digitally, this questionnaire also risked "disappearing" in the number of digital mailings during this

3 *L'école à la maison. Le point de vue des parents*. An international project initiated and directed by Romain Delès and Filippo Pirone, researchers in Sociologie of Education at University of Bordeaux, Centre Emile Durkheim.

period. There were also difficulties in estimating how many students were actually reached by the questionnaire, and who therefore actively chose not to respond. As there was no possibility of checking the sample, a comparison was initially made of the response rate relative to public statistics regarding gender and upper secondary school programs. The questionnaire turned out to have a certain over-representation of girls and an over-representation of a couple of upper secondary programs (the Nature Resource Use program, the Natural Science Program and the Arts program) as well as an under-representation of a couple of upper secondary school programs, especially male-dominated vocational programs.

A total of 3 726 student responses were analysed from the 3 802 questionnaires that were answered. The internal non-response (a total of 76 questionnaire responses) was due either to too many missing answers to questionnaire questions central to the analysis, or to the fact that the questionnaire responses were judged to be "unserious".

As the main method of analysing the student questionnaire responses, we use specific Multiple Correspondence Analysis (specific MCA), which belongs to the method family known as Geometric Data Analysis (GDA) (Le Roux & Rouanet 2004; 2010; Lidegran et. al. 2018). MCA is useful to find patterns in complex datasets and allows us to graphically expose clusters of students with similar characteristics, and simultaneously analyse how these different student clusters experience distance education during the Corona pandemic[4]. The structure of the space is created by the students' answers to the questions that we have selected as active variables in the correspondence analysis. We have chosen to let the active variables relate to the students' social, cultural and economic conditions, such as the parents' level of education, migration background, home situation, family constellation, indicators of the students' cultural practices and the students' upper secondary school programs, in combination with gender (for a detailed account of the active variables see table 2). The use of specific MCAs involves an

4 The correspondence analysis generates two so-called geometric spaces, one for the individuals, which shows the midpoints for all individuals (graph 2), and one space for the response categories, with midpoints for each response category (graph 1). The spaces are homologous in that the distances between the individuals are determined by how they answered the questions that constitute the active variables of the analysis.

experimental approach where one tries to find the variables that create the most distance between the individuals in order to capture the space.

The spatial approach therefore summarises, on the one hand differences in structural conditions among the students and, on the other hand, how these conditions are related to experiences to distance education during the pandemic.

In the displayed graphical representations of the analysis big distances between groups of students' as well as individuals are to be interpreted as a result of differences in response patterns to the questions that constitute the active variables (see graph 1).

The most important differences between the students' answers in the questionnaire appear along the first horizontal axis, the second most important differences along the second vertical axis, then along the third axis and so on[5]. The axes' summed contribution values, i.e. their contribution to the total variance in the questionnaire material, are shown in table 1 in the appendix. The MCA's first two axes explain a total of 87 percent of the total variance. Thus, we have limited ourselves with analysing these first two axes below.

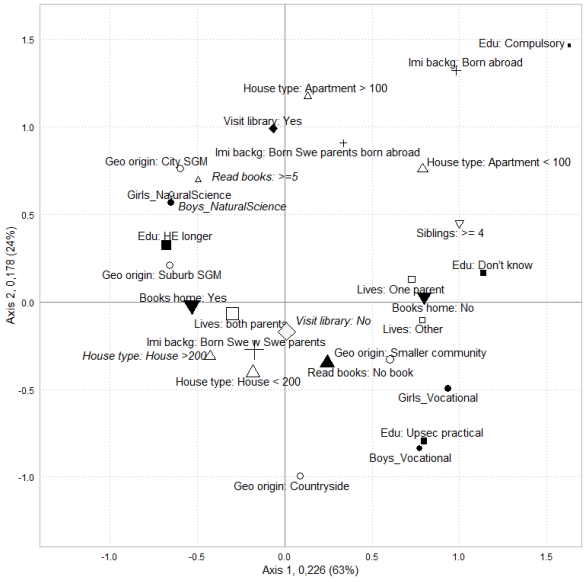
In order to analyse differences and similarities in attitudes towards and experiences of distance education, other questionnaire responses of interest for the analysis are projected into the space as supplementary variables. For example, it concerns the students' answers to questions about the extent to which distance education has improved or worsened their study life, what opportunities (technical as well as academic) they have to conduct distance studies, and what help and support they have available at home. The dispersion in the space of these answers enables an analysis of differences in experiences of distance education seen in the light of a broad set of characteristics of students. Thus, we do not analyse the influence, or effect, of individual factors on the distance experience, but how these differences can be understood spatially based on overall tendencies in the material and the polarities that are crystallised.

5 The axes' summed contribution values, i.e. their contribution to the total variance in the questionnaire material, are shown in table 1 in the appendix.

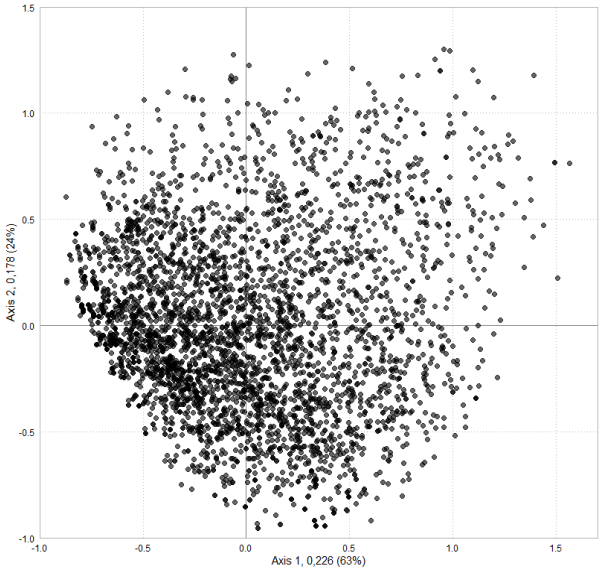
Three poles of different conditions for students' distance education

The social structure for the upper secondary school, which is briefly presented above, serves as an introduction for understanding the different conditions that students have for distance education. The student questionnaire enables an in-depth understanding of the different circumstances in which students can study from home. Graph 1 and 2 illustrates the constructed space of conditions for distance education. The first graph shows median points for different conditions characteristics of the students (parents' level of education, migration background, home situation, family constellation, indicators of the students' cultural practices and the students' upper secondary school programs, in combination with gender). The second graph shows the distribution of all students in the space.

Graph 1: The space of conditions and experiences among Swedish upper secondary students during Covid-19 distance education. Active variables contributing above average in plane 1-2.



Graph 2: The space of individuals, Swedish upper secondary students during Covid-19 distance education, plane 1-2.



Note: Labels in italics indicate categories below, but close to, the average contribution. For an explanation of the labels, see table 2 in the appendix.

Let us explore the different parts of the space in graph 1, that is, what characterises students in different parts of the space. Our interpretation of the active variables in the first and second axis of the space gives us reason to talk about three clusters of students, what we in the following will refer to as poles[6].

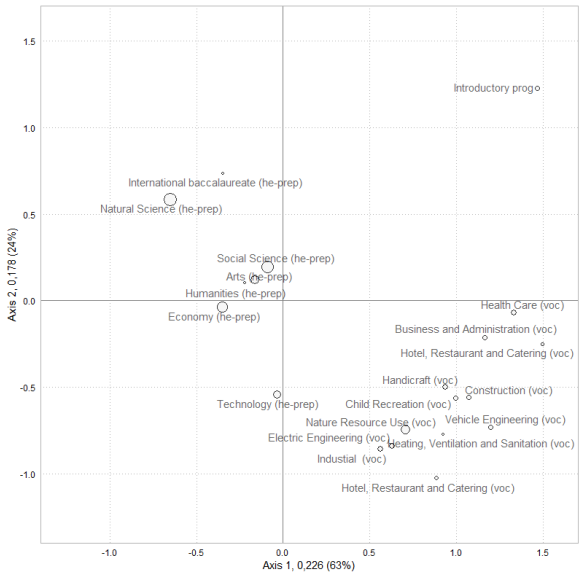
To the left in the space, along the first axis, we find a resourceful pole consisting mainly of: students in the Natural Science Program; students whose parents have a longer university education; who have access to

6 This does not mean that all students in the survey clearly can be categorised as belonging to a distinct pole. In between these "extremes" we find student that either have a more indistinct response pattern or combine elements from several position in the space. Since we are especially interested in variations in experiences, the main focus will be on the clearly defined poles of the space.

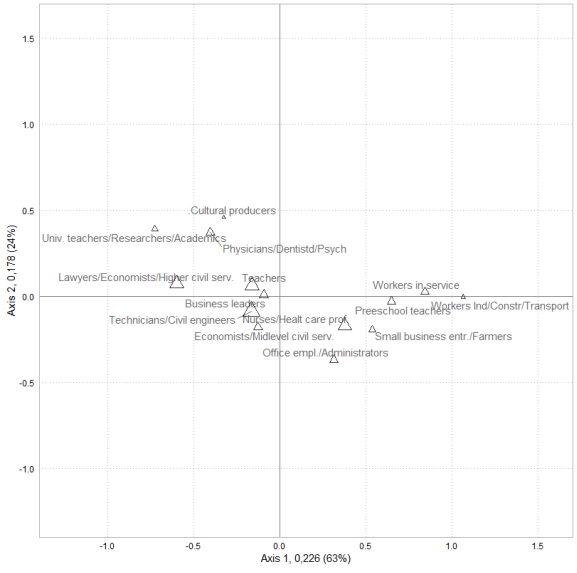
books; who visit libraries; who read a lot of books alongside school books; and live in big cities (Stockholm, Gothenburg or Malmö).

To the right, along the first axis we distinguish two groups of students that are in turn separated from each other along the second axis. In the upper right corner we find students who more often than others have a foreign background and/or parents with a foreign background, live in apartments (especially those of less than 100 sqm), and have parents with a shorter education (primary school). In the lower right corner are students who mainly go to vocational programs, have parents who have a shorter, practical upper secondary education, live in the countryside or in a smaller municipality (less than 20 000 inhabitants), live in houses and do not read books other than school books.

Graph 3: The space of conditions and experiences among Swedish upper secondary students during Covid-19 distance education, study programs in plane 1-2.



Graph 4: The space of conditions and experiences among Swedish upper secondary students during Covid-19 distance education, parents' occupation (household) in plane 1-2.



Graph 3 shows the distribution of all the different upper secondary school programs that students attend, and graph 4 shows the distribution of students' social origins, here indicated by their parents' professions[7]. With regard to upper secondary school programs, all higher education preparatory programs (he-prep) are found to the left along the first axis while the vocational programs (voc) are positioned to the lower right part of the graph. Some programs are found on the outer edges of the graph, which we need to keep in mind when we later reason about differences in students' experiences of distance education. The programs with large distances between each other along the first two axes: Introductory program which is a upper secondary program primarily for newly arrived students with foreign backgrounds who are

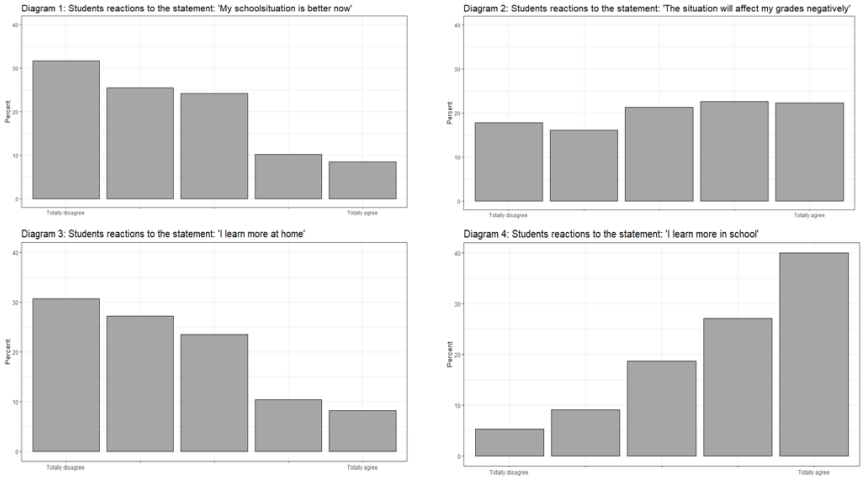
7 These variables are not active in the analysis, but have been projected into the space as so-called supplementary variables. See Le Roux & Rouanet, 2010, p. 9.

about to be admitted to Swedish upper secondary school programs, and which are located in the upper right corner; the Natural Science Program and International Baccalaureate (IB), which are close to each other in the upper left corner of the space; and vocational programs in Hotel and Tourism; Restaurant, Management and Food and Industrial Technology located in the lower right corner of the space. Students in these education categories differ greatly in terms of their conditions for distance education, and occupy what we can call extreme positions in the space. The dispersion of parents' occupations, which is seen here as an indicator of students' social origins, is shown primarily along the first horizontal axis (graph 4). To the left in the graph 4 students come from university teachers' homes, medical doctors' homes and homes where parents work with cultural production. Students who come from the working class and where the parents work in service, industry, construction and transport are furthest away from the resourceful students, primarily to the right along the first axis.

In total, we distinguish three poles of different conditions for students' distance education: 1) an urban educational and culturally strong pole, where the students mainly go to Natural Science Program; 2) a pole consisting of students with an immigrant working-class background, who mainly attend the Introductory program and live in limited space in apartments; and 3) a Swedish rural working class pole with students who attend vocational programs, and live in houses.

Students' experiences of distance education

Before we analyse the experiences of distance education related to these three poles of conditions, a few words should be said about how the student group as a whole has experienced the situation.



Diagrams 1-4 reports the answers, according to a scale ranging from "Totally disagree" to "Totally agree", on a number of statements linked to the students experiences of distance education. A large majority of students take a negative stance on the statement that the school situation is now better (almost 60 percent are on the negative side of the scale), while very few students agree with this statement (diagram 1). It is also possible to apprehend a certain concern in the student group that the current situation will affect their grades negatively, even if the results here are not as clear (diagram 2).

The following statements (diagram 3 and 4) are both related to the students' attitudes towards their learning situation. The results clearly indicate that students have great faith in the school as an institution, about 40 percent "Totally agree" to the statement "I learn more in school" while only about 5 percent take the opposite stance. At the same time, a large proportion of the students disagree with the statement "I learn more at home". The results thus show a relatively negative experience of distance education overall, and the experience of not gaining access to the school as an institution turns out to be of great importance for the students (cf. Sjögren *et al.* 2021; Henning Loeb & Windsor 2020).

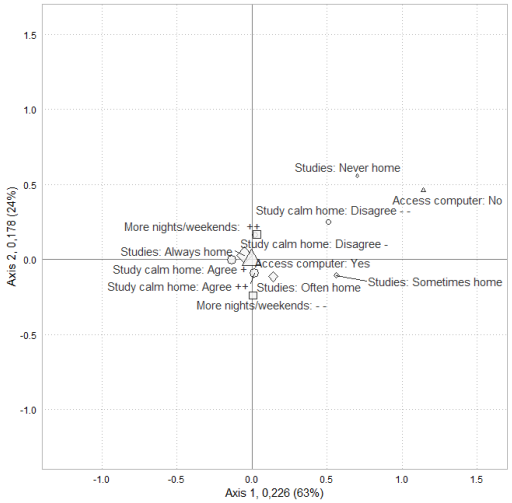
As we have seen, the overall experience of distance education was negative. Now we shall look at differences within the student group, in terms of its experience of the teaching having moved from the school.

We start by looking at the students who are most positive about distance education (based on the fact that they answered "Totally agree" with the statements "My school situation is better now" and "I learn more at home"). The largest proportion who fully agree with these statements is found among girls in vocational programs (18 per cent of that group), and the lowest proportion among girls in Natural Science Program (7 per cent). A slightly larger proportion of those with parents with low education are more positive about distance education, compared with students whose parents have a high level of education (17 percent and 10 percent, respectively); and the lowest proportion who answered that they are positive about distance education are among students whose parents are university teachers, researchers or cultural producers (just over 6 per cent) and managers or business leaders (just under 8 per cent).

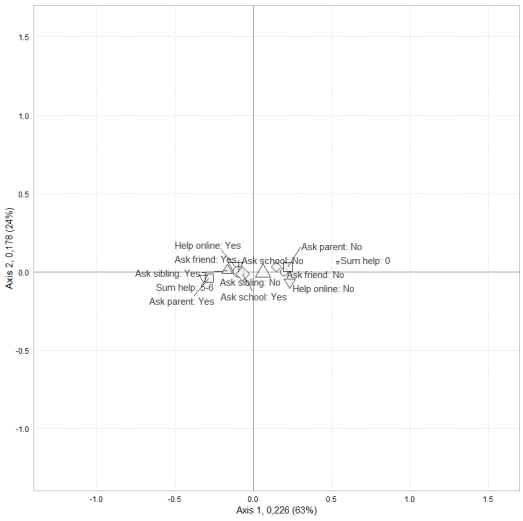
The opposite picture (i.e. those who answered "Totally disagree" with the statements "My school situation is better now" and "I learn more at home"), can be summarised thus: the most negative are students in higher education preparatory programs. There is also a clear rural and urban difference. As many as 46 per cent of the students in the three large cities belong to the negative group for distance education, compared with 37 per cent of the students in rural areas and in smaller communities.

Below, we present the different aspects of the students' experience of distance education, related to different conditions.

Graph 5: The space of conditions and experiences among Swedish upper secondary students during Covid-19 distance education, study environment and habits in plane 1-2.



Graph 6: The of conditions and experiences among Swedish upper secondary students during Covid-19 distance education, access to IT-support in plane 1-2.



Graphs 5 and 6 show how students in the urban, educational and resourceful categories, mainly students in the Natural Science Program, (i.e. those located to the left in the graph) have access to IT help and support to a greater extent than others, especially from parents, siblings and friends[8]. The less resourceful students rarely turned out to have anyone to ask for help. Access to a computer in the home also varied, and where the immigrant working-class pole is most telling is in revealing that the students in this part of the space state more often than others that they do not have access to computers. In the questionnaire we asked the students to answer whether they considered themselves to have "Peace to study at home". Also with regard to peace to study at home, the students within the immigrant working-class pole differentiated themselves negatively from the others where the students at least to some extent agreed that they had peace to study at home. When asked, "Where do you study during your distance studies?", it turns out that it is not easy for everyone to study at home. The experiences of never studying at home, and of only occasionally studying at home, are found among the more resource-poor students; and the answer that they "Never study at home" is most common among the students in the immigrant working-class pole. The experience of studying more in the evenings and weekends now, compared to before distance education came in, is more common among the students in the immigrant working-class pole, while among the students in the Swedish rural working class pole it is the least common.

An in-depth study of those who state that they have peace to study at home shows that this experience is also linked to gender. Approximately 40–45 percent of the boys in the various upper secondary education categories completely agree that they have peace to study at home, which can be compared to the girls, whose corresponding proportion is 25–30 percent. Among the boys, it is those who attend vocational training who to the greatest extent agree that they have peace to study at home, and the same applies to the girls.

8 In these graphs, questionnaires about the experiences of distance education have been projected into the space as so-called supplementary variables.

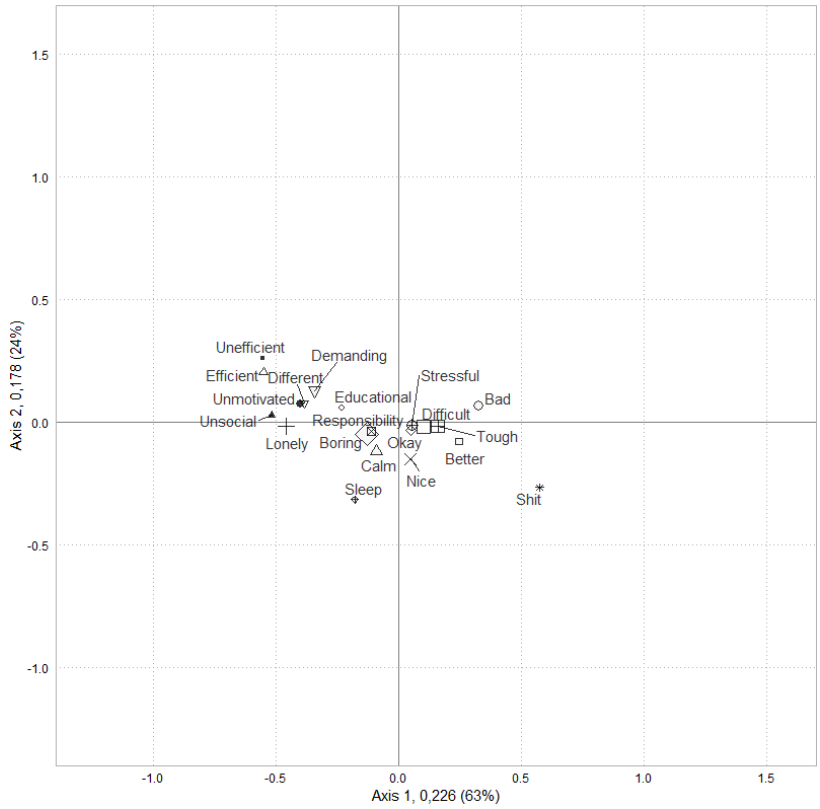
Furthermore, we can state that support from parents is related to the provision of peace to study, and to the experience of whether you learn more at home or at school. The more support from parents, the more students feel that they have peace of mind at home. In addition, the more support from the parents, the more common is the experience of learning more at home. The reverse is also true: if there is less support from parents, students believe that you learn more in school.

Crucial to being able to carry out distance studies at all is the access to digital tools (desktop or portable computer, Ipad), and a well-functioning internet connection. A very large proportion of students, Swedish as well as foreign, have the digital conditions; however, there is a small proportion born abroad who have neither computers nor well-functioning internet connections. This group also does not consider itself to have the digital competence that is expected to cope with the school tasks. Nor do they, in the same way as foreign students born in Sweden or Swedish students, have the opportunity to receive IT support from parents, siblings or friends. They are also less likely to seek IT support from the school. For example, 42 percent of the foreign-born students state that they have certain difficulties in living up to the technical requirements demanded, whereas the corresponding figure for students with a Swedish background is 30 percent.

Differences also appear when it comes to peace to study at home, or the ability to concentrate. Students with a foreign background (both those born in Sweden and abroad) state that they learn better in school to a greater extent, and fear that distance education will have a negative effect on grades.

For the group born abroad, domestic overcrowding is more common, due to a larger number of siblings in apartments of less than 100 square meters. Focusing on this part of the analysis, we can thus conclude that the unequal conditions we have been able to establish for the material as a whole apply to a greater extent to the group born abroad, than to students born in Sweden, with Swedish or foreign-born parents.

Graph 7: The space of conditions and experiences among Swedish upper sec students during Covid-19 distant schooling, three words to describe the situation in plane1-2.



In the questionnaire the students had to freely choose three words that summarised their experiences of distance education[9]. Graph 7 shows the most common words that students chose. The purpose was to understand the unprepared and sudden change that the former "public" school sphere has created by moving into the "private" sphere, not infrequently into the student's own (bedroom). The problem of maintaining the demarcation between the "public" and "private" appears in slightly different ways in the educational space. Three slightly different ways of summarising their existence crystallise. To the

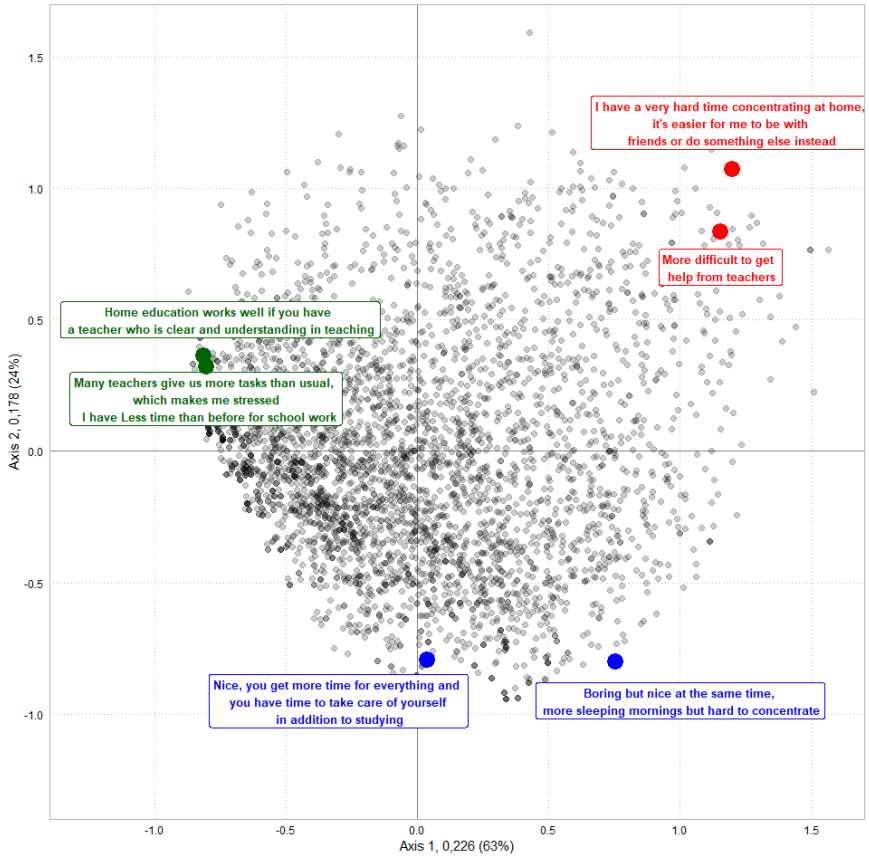
9 It was an open question without answer options.

left in the urban, educational and culturally strong pole, with students in the Natural Science Program, there are words that can be linked to academic achievement: “inefficient”, “efficient”, “unmotivated” and “demanding”. To the right of the graph, where there are comparatively low-resourced students, words such as “shit”, “bad”, “better” and “tough” dominate. Down in the graph towards the rural Swedish working-class pole, words like “sleep”, “calm”, “nice” and “okay” are common and even the word “shit” gravitates towards this pole. In this part of the graph, the students’ chosen words are more general in nature and connected to life in general. The words are more positively charged towards the rural Swedish working-class pole, where students who have chosen vocational programs are found, and the students in this part of the space seem to take to distance education more easily than other students.

The transformation from home to school means that the role as a student must be lived within an environment that otherwise follows very different rules: a private sphere associated with free time and free content. The high-performing group describes the situation with words such as “demanding”, “unmotivated”, “inefficient” and “efficient”, which indicates that the situation is related to school performance. The students were expected to quickly find a structure that corresponded to the requirements set by the teachers in relation to assignments and tests. For this group of students, the weakened framing of teaching seems to mean working at decoding the requirements, and developing successful study techniques at home, to be effective. For the group of immigrant-working-class students, the experience of distance education is described with words such as “bad”, “tough”, “difficult”, expresses a kind of inability to take on the role of self-directed work and to find solutions to the tasks without teacher-led teaching in school. The text-bound world that the school is essentially, is, to reconnect with Bernstein, “independent of context and universalist”, and thus, according to Bernstein, closer to the elaborate code of the middle class (Bernstein 1977). It is reasonable to assume that digitalised teaching is more “independent of context and universalist” than the classroom-specific one, and thus disadvantages this group of students. These negative experiences of distance education are partly in contrast to more positive word choices that the group of Swedish rural working-class students in the main vocational programs make. It can at first be

perceived as contradictory that the digitalised, distanced and independent of context teaching, which further alienates students from a vocational and more context-bound content, is the group that describes distance teaching as "calm", "nice", but also as "sleep" and "better". One possible assumption is that this group of students has a weaker relationship of dependency on the school than the other student clusters (Bourdieu & Passeron 1964; Bourdieu 1979). The future is not determined solely by school grades and degrees, but by professional experience and by a greater anchoring in the local labor market.

Graph 8: The space of individuals, Swedish upper secondary students during Covid-19 distance education, student quotations in plane 1-2.



In the questionnaire, we also gave the students the opportunity to freely formulate for themselves what it is like to study at home. Graph 8 contains quotes from six students in the so-called individual cloud. These quotes show the range of their experiences of distance education, and how these experiences are related to the different conditions the students have to study at home. Typical statements in the resourceful part of the educational space are about the teachers' ability to clearly state what was expected and the ability to adapt the tasks to the new situation. They were often stressed because the teachers gave them significantly more tasks than they used to get. "Many teachers give us more tasks than usual, which makes me stressed. I have less time than before for school work." One possible explanation, in this sudden and unexpected transition to distance learning, is that the tasks teachers now designed for digital, mainly based on earlier, analog tasks and that many previous analog elements were replaced with written tasks that grew in quantity and size, made it difficult for both teachers and students, to calculate the time required and how the tasks should be executed. What we described as a recontextualization of pedagogical practice, the transition from the analogue classroom to the digital "home-school", was not yet established in practice.

The students who are on the immigrant working-class pole in the educational space are the group that clearly shows their dependence on the school. Difficulties in carrying out tasks on your own without the support of teachers and classmates, in designing the home for a life that is recognised as a school, are most problematic for this group. "More difficult to get help from teachers", and "I have a very hard time concentrating at home, it's easier for me to be with friends or do something else instead". Pupils on the pole of Swedish rural working-class students report difficulty concentrating, but the possibility of a good night's sleep and no long journeys improves their assessments. Again, their less strong dependence on the school in relation to the other student groups appears as the possible explanation for their not quite as dissatisfied experience of distance education. "Boring but nice at the same time, more sleeping mornings but hard to concentrate", and "Nice, you get more time for everything and you have time to take care of yourself in addition to studying".

Conclusion

The outbreak of SARS CoV-2 (Covid-19) led governments all around the world to resort to restrictions to stop the spread of infection as much as possible. Unlike most other European countries, Sweden chose a "softer" line. Confidence in citizens' own responsibility has formed the backbone of what has become internationally known as the Swedish strategy. The shutdown of society was only partial. Compulsory school was kept open. The exception to this softer strategy was upper secondary school. The "shutdown" was decided drastically without prior preparations. From March 2020 until the start of school in the autumn of 2021, teaching in the Swedish upper secondary school has mainly been conducted at a distance.

On basis of our questionnaire study in May/June 2020 on the experiences of distance education, we can conclude that the students already after a few months had very negative experiences of distance studies. What are mostly included in these experiences? The questionnaire study has made it possible to analyse the conditions in terms of social and cultural assets, access to space, study peace and concentration, as well as the students' subjective experiences of the change to distance education. However, the perceptions of challenges with managing the requirements and organising your day yourself, maintaining ambitions and expectations of school success, decoding the requirements, in sum taking personal responsibility in school work, vary substantially between students.

The transition to distance education means a weakened framing and classification of the pedagogical practice in Bernstein's sense. The experience of this weakening is reflected in our questionnaire material. Achieving a school structure in the home, both practically and pedagogically, entails different kinds of challenges for the three poles of students that we examined in the "The space of conditions and experiences among Swedish upper secondary students during Covid-19 distance education". For the urban and educational and culturally rich students, and especially the girls, all with high expectations, digitalised teaching further strengthened the demands on performance and the urgency of accumulating educational capital. Despite good digital conditions, the changed teaching meant a challenge to correctly interpret and read the underlying code, but also to efficiently plan the

time required for solving the tasks and find out effective study techniques. Immigrant working-class students appeared to be the biggest loser. In addition to the fact that the digital and spatial conditions are worse, it is also the group that can be said to be most sensitive to the weakened framing and classification. In addition, knowledge of the Swedish language was all in all probability weaker in this group of students, which made the situation of learning at home more difficult. Many in this cluster attend study-preparation programs, which requires that they study further after upper secondary school, meaning that the dependency relationship with the school is stronger. Rural Swedish working-class students, especially the boys, were the group that had a slightly weaker dependency on the school system. The consequences of the transition to distance education were less noticeable for this group of students, since they were mainly attending vocational programs. Difficulties with distance education can be offset by their anchoring in working life and the local labor market.

When the school is moved to the home through the transition into distance education during the pandemic, the home per se becomes more important for the student's school success. This means that social differences take hold. In addition, the dependence on a digitalised home increases. Digitalisation is proving to be unevenly distributed in upper secondary school and this inequality follows the social structure. Digitalisation is at its weakest among the group of immigrant working-class students. Thus, the transition to distance education can be said to have a double effect, through the increased importance of the home and the dependence on digitalisation, which tends to increase the differences within Swedish upper secondary school.

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Appendix

Table 1. Eigenvalues, variance and adjusted variance of the MCA.

	Axis 1	Axis 2	Axis 3	Axis 4	Axis 5	Axis 6	Axis 7	Axis 8	Axis 9	Axis 10
Eigenvalue	0,226	0,178	0,138	0,123	0,122	0,118	0,114	0,113	0,109	0,109
Variance	6,3	4,9	3,8	3,4	3,4	3,3	3,2	3,1	3	3
Adjusted variance	62,9	24	5,7	2,1	1,9	1,2	0,7	0,6	0,3	0,3
Cum adjusted variance	62,9	86,9	92,6	94,7	96,6	97,8	98,5	99,1	99,4	99,7

Table 2. Frequencies, contributions and coordinates of the active variables and categories of the MCA.

Active variables	**Active modalities**	**n**	**Contr. Axis 1**	**Coord Axis 1**	**Contr. Axis 2**	**Coord Axis 2**	**Contr. Axis 3**	**Coord Axis 3**
Education of parents (highest)	HE longer	1 513	**8,19**	-0,68	**2,44**	0,33	0,05	0,04
	HE shorter	800	0,27	-0,17	0,65	-0,23	0,03	-0,05
	Upsec theoretical	393	0,39	0,29	0,84	-0,38	2,08	-0,52
	Upsec practical	530	**3,98**	0,80	**5,01**	-0,79	1,18	0,34
	Compulsory	138	**4,32**	1,63	**4,47**	1,47	0,34	0,35
	Don't know	350	**5,34**	1,13	0,15	0,17	0,14	-0,14
Immigrant background	Born Swe w Swe parents	3 024	1,08	-0,17	**3,35**	-0,27	0,00	-0,01
	Born Swe parents born abroad	250	0,33	0,34	**3,10**	0,91	**5,53**	-1,07
	Born abroad	446	**5,08**	0,98	**11,74**	1,32	**3,56**	0,64
Family situation, student lives with	Both parents	2 433	**2,55**	-0,30	0,17	-0,07	0,57	0,11
	One parent	519	**3,25**	0,73	0,13	0,13	0,01	-0,03
	Between parents	356	0,01	0,06	0,74	0,37	**6,98**	-1,00
	Other unspecified	319	**2,34**	0,79	0,05	-0,10	0,58	0,31
Number of siblings	Siblings: No	233	0,37	0,37	1,25	0,60	0,61	0,37
	Siblings: 1	1 494	1,24	-0,26	1,04	-0,21	0,54	-0,14
	Siblings: 2	1 109	1,16	-0,30	0,24	-0,12	0,07	-0,06
	Siblings: 3	453	1,09	0,45	0,47	0,26	0,20	0,15
	Siblings: >= 4	435	**5,15**	1,00	1,32	0,45	0,57	0,26
Geographic origin	City SGM*	712	**2,98**	-0,59	**6,22**	0,76	**4,21**	-0,55
	Suburb SGM*	638	**3,25**	-0,66	0,41	0,21	0,88	-0,27
	City > 80 000	255	0,16	0,23	0,15	0,20	1,75	-0,59
	City < 80 000	749	0,71	0,28	0,07	0,08	0,02	0,04
	Smaller community	869	**3,76**	0,60	1,42	-0,33	1,37	0,28
	Countryside	500	0,05	0,09	**7,47**	-1,00	**7,46**	0,88
House type of students family	House > 200	902	1,94	-0,43	1,32	-0,31	0,00	-0,01
	House < 200	1 631	0,64	-0,18	**4,01**	-0,40	**2,28**	0,27
	Apartment > 100	343	0,07	0,13	**7,13**	1,17	**2,75**	-0,64
	Apartment < 100	718	**5,30**	0,79	**6,23**	0,76	1,33	-0,31
Do you have more than 100 books?	Yes	2 237	**7,47**	-0,53	0,01	-0,02	1,18	0,16
	No	1 486	**11,19**	0,80	0,02	0,03	1,79	-0,25
Have you visited the library during lockdown?	Yes	544	0,03	-0,07	**8,06**	0,99	**14,66**	1,18
	No	3 175	0,00	0,01	1,38	-0,17	**2,54**	-0,20
How many books have you read last 3 months?	Books >= 5	236	0,69	-0,50	1,72	0,70	**8,50**	1,36
	Books: 3-4	359	0,24	-0,24	0,70	0,36	**6,79**	0,99
	Books: 1-2	1 409	0,41	-0,16	1,00	0,22	0,14	0,07
	No books	1 721	1,22	0,24	**3,15**	-0,35	**6,82**	-0,45

Gender and upsec program	Girls Natural Science	594	**2,98**	-0,65	**2,91**	0,57	0,46	0,20
	Boys Natural Science	269	1,34	-0,65	1,54	0,62	0,03	0,08
	Girls Social Science	595	0,10	-0,12	0,48	0,23	0,00	0,00
	Boys Social Science	168	0,00	0,01	0,01	0,07	0,13	-0,20
	Girls Economy	361	0,51	-0,34	0,03	-0,08	**3,36**	-0,69
	Boys Economy	175	0,27	-0,36	0,01	0,05	**6,75**	-1,41
	Girls Aesthetics	225	0,12	-0,21	0,15	0,21	0,40	0,30
	Boys HE Prep other	186	0,00	-0,01	1,12	-0,63	0,07	0,14
	Girls Vocational	553	**5,69**	0,93	2,02	-0,49	0,98	0,30
	Boys Vocational	388	**2,73**	0,77	**4,11**	-0,84	0,33	0,21

* Stockholm, Gothenburg, Malmö

Note: 10 active variables, 46 active modalities. Average contribution of modalities 2,2