



School closings during the COVID-19 pandemic: findings from German high school students

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School closings are a core policy to slow down the spread of the COVID-19 pandemic all over the world. In Germany, all schools were closed within a few days after 13 March 2020. As in other countries, Germany currently observes a countrywide, growing debate regarding the reopening of schools. Part of that debate focuses on the graduation exams at German high schools (upper secondary track of the German “Gymnasium”), which are due within the next few weeks. Although schools support their students by providing learning material on a regular basis, students in their final year of school spend limited time on school-related activities. At the same time, students worry about their academic performance and their future occupational careers.

On 23 April 2020, Germany started reopening schools, albeit with huge regional and institutional variations. The policy-based consensus is to re-establish regular schooling as soon as possible while avoiding a re-acceleration of the spread of COVID-19. Based on the

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assumption that older students are more likely to comply with distancing rules than younger students, the German [Robert Koch Institute](#) (RKI) recommended to start the reopening of schools with the graduation [cohorts](#). This step-by-step reopening strategy with graduation classes restarting earlier than others may also be justified because school closings may have particularly adverse effects on graduating students for several reasons. Firstly, students in their final year have very restricted time to keep up on their studying, and they will lack material usually taught in class which will be required for their final exams. Secondly, learning material in higher grades is more demanding, and parents may be less able to support elder children compared to children in lower grades. Thirdly, in Germany as in many other countries, it was unclear for a long time if and when the final exams would take place at all, and students in their final year may be particularly worried about the pandemic, which may reduce their capacities to be productive. Moreover, even older students in their final year may not be able to self-organise sufficiently, partly because they have never been systematically prepared for self-study.

In this report, we use data collected during the school lockdown in Germany to analyse how students respond to the closings, how they perceive the closings, and how much support they receive. Before COVID-19, Germany had a school system with a rather low degree of digital and virtual schooling, at least compared to other EU Member States as shown by a study of the European Commission from 2019. However, even if students in more highly digitalised countries may find it easier to spend time on school activities, the insecurity about the reopening strategies and final exams should be comparable across nations.

Our sample includes 1,027 students in their graduation and pre-graduation years from 195 high schools in eight German federal states. All students answered an online survey during the school closings, which contained specific questions on those closings.

Majority of survey respondents receive learning material from schools at least once a week

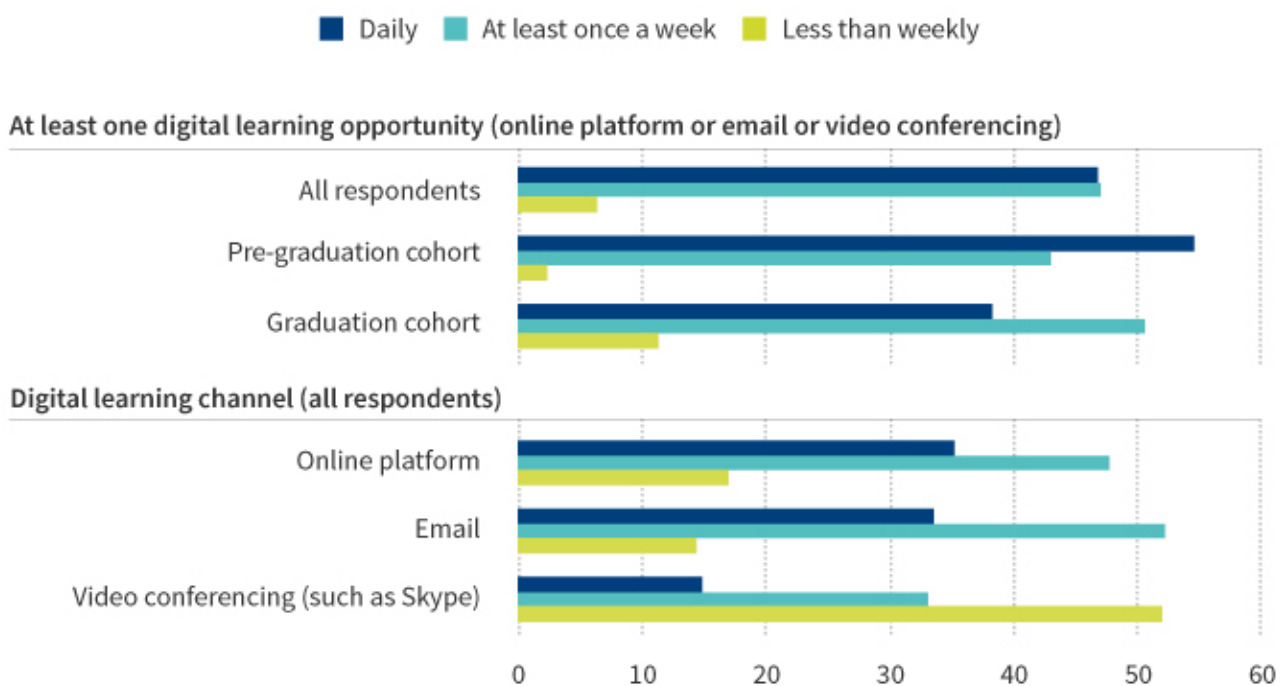
School closings forced teachers to adjust their teaching methods in a matter of days. Our results indicate that even in times of school closings the majority of students still interact regularly with their schools and receive learning material (see Figure 1). Most of the respondents report daily delivery of learning material (47 %) or at least once a week (47 %). Only 6 percent stated that they received learning material from school less frequently. Among non-graduating students – i. e., those who do not currently prepare for their final exams – the share with less-than-weekly interaction is even lower at 2 percent.

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Figure 1: How often do German high school students receive digital learning opportunities or material from their teachers during school closings?

Percentage of high school students¹⁾ receiving digital learning opportunities or material through different channels during school closings, in percent



¹⁾ High school student survey in pre-graduation and graduation classes in the period from March 24th to April 6th 2020, n=1.026.

Source: BerO-Study of the German Institute for Employment Research, 2020. © IAB

Schools use several methods of communication to get in touch with their students, often concurrently. Most commonly, students receive teaching material via email or through online platforms. Considering both modes of contact independently, about one third of survey respondents get daily information and an additional 50 percent get at least weekly information via email. In contrast, online courses and online teaching are not as common: 15 percent of the respondents get this opportunity daily and an additional 33 percent at least once a week.

Overall, these numbers suggest that there has been regular interaction between teachers and students since the schools started closing down. However, there is important variation with scope for improvement. It is also possible that the provided material covers only part of the regular classes or deviates significantly in difficulty and content.

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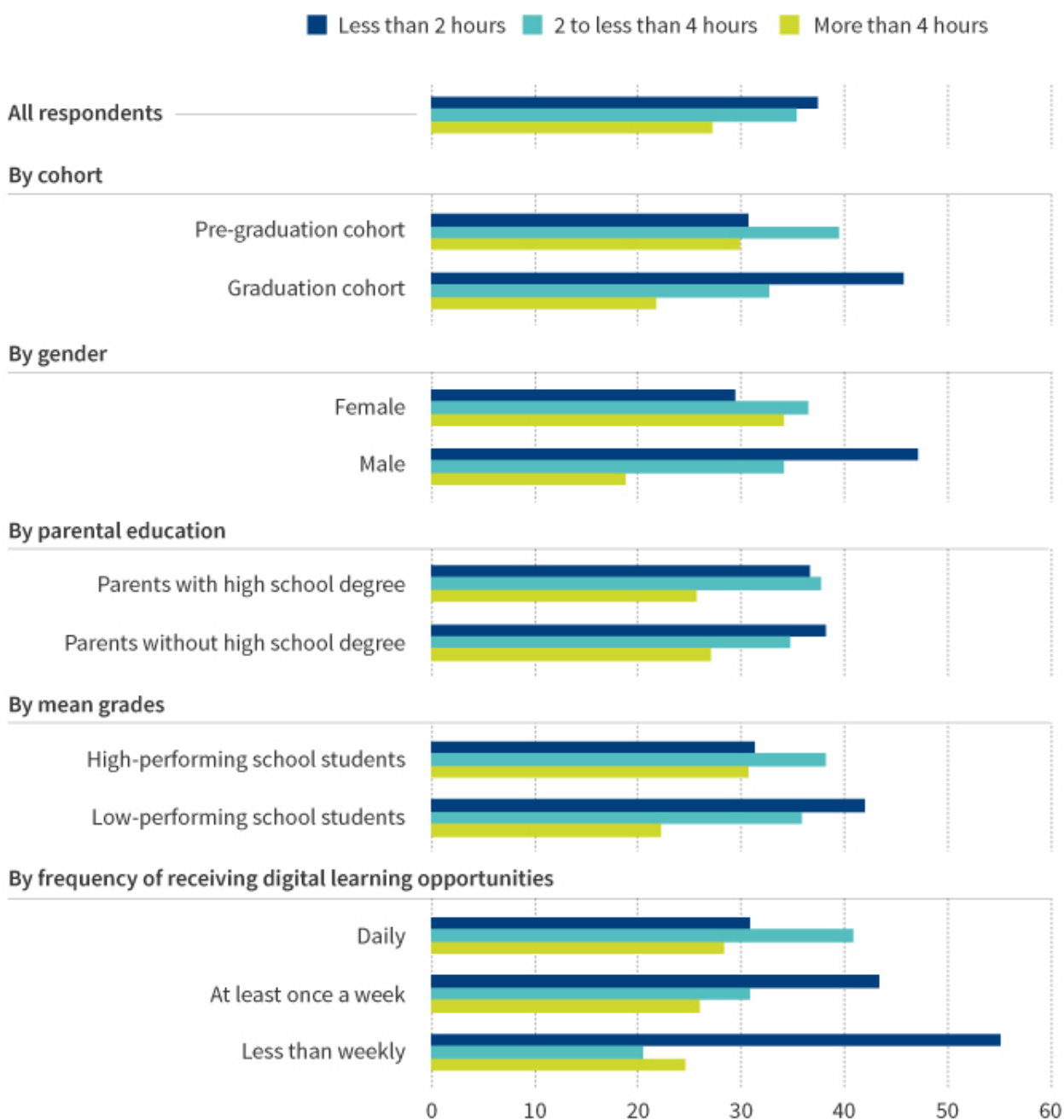
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Variation of students' studying activities during school closings

Apart from the extent to which students were provided with studying material by the schools, the survey also observed how much time students attribute daily to school-related activities in times of homeschooling (see Figure 2). In this section we use data from 844 students who reported school-related activities performed during the week from Monday to Friday. Some students reported time investment for school-related activities on the weekend. As the time invested on weekends is lower, we excluded those students here. However, the later findings indicate that students in homeschooling situations may have distributed studying times across seven days a week in contrast to regular schooling situations.

Figure 2: How much time do German high school students spend studying during school closing daily?

Percentage of high school students¹⁾ spend studying on a home schooling day, in percent



¹⁾ High school student survey in pre-graduation and graduation classes in the period from March 24th to April 6th 2020, n=844.

Source: BerO-Study of the German Institute for Employment Research, 2020. © IAB

During the week, approximately one quarter of students invest more than four hours a day in studying activities, such as doing homework or participating in online schooling activities. In contrast, more than a third of students allocate less than two hours a day to studying. That differs remarkably from an average regular day at school. With respect to the graduates cohort (“Abiturienten”), almost 46 percent report less than two hours a day spent studying. Here, the debate about rescheduling the final exams might have impacted the students’ motivation to prepare for these exams.

However, it must be considered that the number of hours spent studying alone does not give any evidence of the intensity or quality of studying. In other words, better performing students might require less time to complete the required studying activities at home compared to regular times at school. However, our data indicate that low-performing students invest less time in homeschooling, and male students less than female. Surprisingly, we found no correlation between the students’ time investment in studying activities and parental education.

Regarding the schools’ support of digital learning, the results indicate that students who receive learning material from their schools more frequently spend more time on studying activities. Where students receive learning material from school less than once a week, more than 50 percent of students report less than two hours a day spent studying. Where students receive learning material on a daily basis, only one third of those students report studying activities of less than two hours a day.

These results may indicate that besides the supply with learning material, schools should interact more with the students. That would not only allow schools or teachers to monitor the students’ studying activities but also increase the students’ motivation to invest more time in studying activities, especially in case of low-performing students or less active students. However, time restrictions on the part of the teachers or technical aspects might limit the possibility of such activities.

More than one third of high school graduates are worried about their future careers due to school closings

Students were asked to rate their worries about their academic performance and future career options due to school closings on a scale from 1 (not worried at all) to 10 (very worried). It was found that 45 percent of the students have high or very high concerns (scale

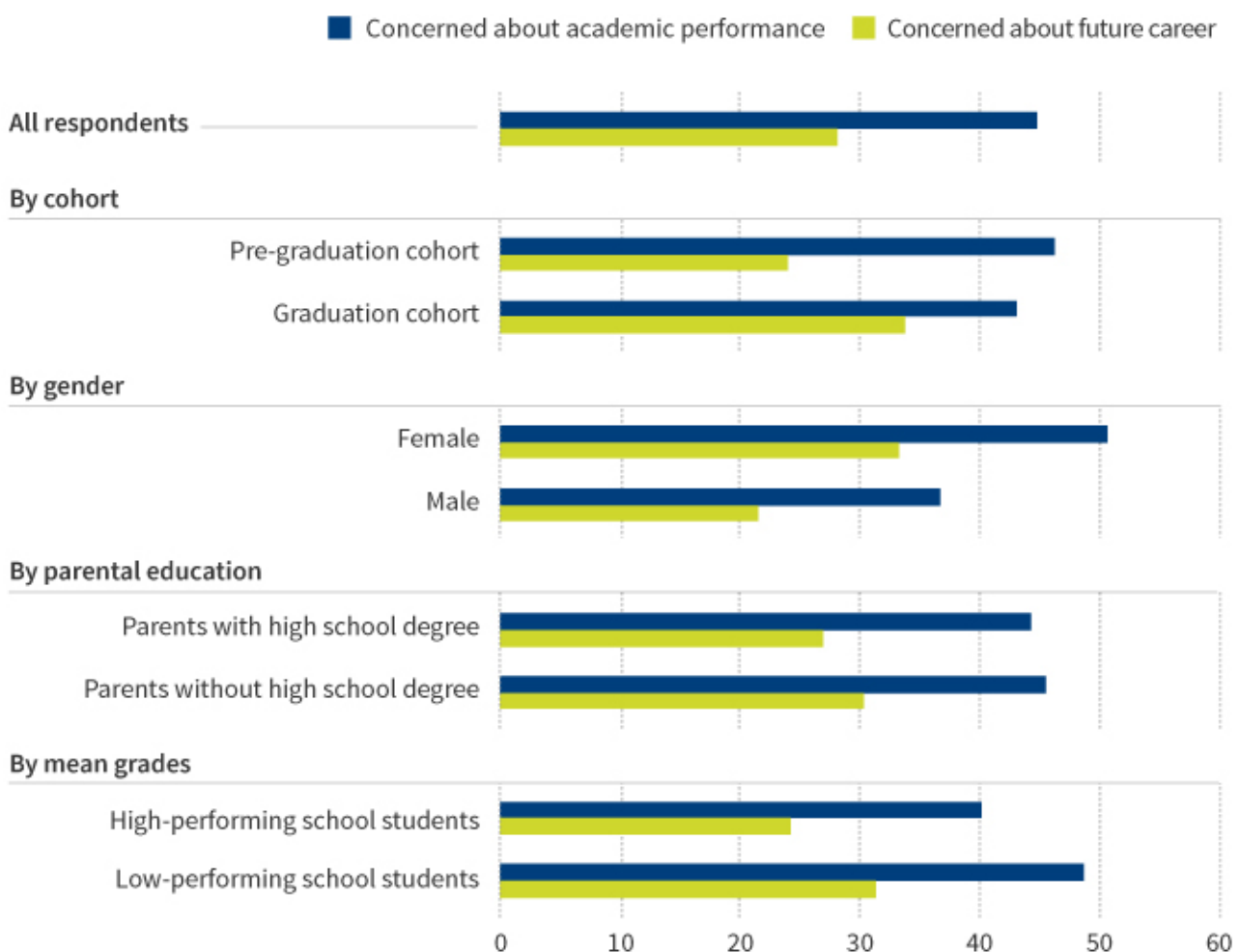
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values 7 to 10) regarding a negative impact of school closings on their performance. Concerns regarding academic performance are somewhat more pronounced among the pre-graduation cohort and respondents with lower school performance (see Figure 3).

Figure 3: How worried are German high school students because of school closings?

Percentage of German high school students¹⁾ who state that they are (highly) concerned²⁾ about their academic performance or their future careers, in percent



¹⁾ High school student survey in pre-graduation and graduation classes in the period from March 24th to April 6th 2020, n=1.025.

²⁾ Respondents rated their concerns on a scale from 1 (not concerned at all) to 10 (very concerned). Values from 7 to 10 are interpreted as (very) concerned.

Source: BerO-Study of the German Institute for Employment Research, 2020. © IAB

Respondents are less worried about their career prospects; however, more than a quarter of the students are (very) concerned about any negative effects of school closings on their future careers. The graduate cohort is more likely to be seriously or very seriously worried about their future (34 %) compared to students in the pre-graduation cohort (24 %). Students indicating poorer school performance and students from less-qualified families (no high school degree) show slightly more concern regarding their future career.

On average, male students worry less than female students do. While 51 percent of females are (very) concerned about their school performance, this is only true for 37 percent of the male students. A difference of 11 percentage points between the females and males is also found among those students who are seriously or very seriously worried about their future careers.

In any case, these concerns and uncertainties should be addressed, and specific information should be provided. Clear advice on how to carry out final exams and other forms of performance measurement during and after school closings as well as assistance in future career planning by teachers or vocational guidance could be very helpful here.

Conclusion

An extensive survey of over a thousand high school students in their final years in eight federal German states shows that despite the fact that school closings were effectuated on very short notice due to the COVID-19 pandemic, schools provide learning material on a regular basis, even if not all students receive a daily offer. However, most adolescents spend little time (less than four hours a day) on average on school-related activities. In particular, students who claim that they are seldom provided with learning material spend less time on homeschooling. At the same time, quite a few adolescents are worried that school closings may affect their academic performance and jeopardize their future professional careers.

These findings show that even in the final grades in high school it is a challenge for many students to organise their everyday studying in a homeschooling situation. In response to that, first of all, a stronger personal exchange between teachers and students – be it via email, phone call, or video conference – and a daily supply of learning material could be helpful. For this purpose, existing offers should be further developed based on the experience gained so far. However, when intensifying the digital interaction between teachers and students, both technical and time restrictions on both sides must be taken into account. Second, the learning material provided should not only be tailored to the curriculum and the needs of the pupils in terms of scope, level of difficulty, and content, but should also be

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conveyed in a suitable format (e.g., with the help of videos or digital lessons). Third, some students would certainly benefit from setting time standards for the learning materials provided for better orientation in everyday studying.

In addition, schools and teachers should address the students' concerns. Regular and clear communication, for example details about the dates of the high school exams (Abitur), will offer the young people more planning security. This also applies to the planning of their professional future, especially for secondary school students in their final year. In addition to schools, career guidance could also help to open up potential prospects for the young people in this uncertain time.

Literature

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