



# What is the impact of the COVID-19 pandemic on our education system?

First insights from the November 2021 Épreuves Standardisées (ÉpStan)

## ÉpStan: National school monitoring programme and a brief retrospective on 2020

The standardised achievement tests, which are conducted annually in Luxembourg's primary and secondary schools as part of the ÉpStan, aim to measure certain key competencies of the students (e.g. in German, French and mathematics). In addition, they use student and parent questionnaires to measure students' background characteristics (e.g. gender, socio-economic status, language background) and personality traits (e.g. interest in school; for more information on the ÉpStan, see [www.epstan.lu](http://www.epstan.lu)). The ÉpStan 2021 include data from approximately 23,000 primary and secondary school students, responses from approximately 15,000 parents of primary school children, and comparative data from approximately 183,000 students from previous primary and secondary school years (from 2014 to 2020). They are fully representative and allow us to make robust statements about the impact of the COVID-19 pandemic on our education system.

The ÉpStan results from November 2020 were the first comprehensive empirical data on the impact of school closures during the first six months of the pandemic (from spring to summer 2020) on the academic performance of primary and secondary school students in Luxembourg and on the perception of distance learning by parents and students:

Contrary to what was expected, the 2020 ÉpStan results did not reveal a systematic negative trend in either primary or secondary school, and both students and parents indicated that they tended to cope rather well with distance learning, without particularly enjoying it. However, the performance of students from cycle 3.1 in the competence domain German listening comprehension decreased significantly, irrespective of their socio-economic status and language background. In addition, the 2020 results revealed that the pandemic hit those students harder who were already considered vulnerable in the Luxembourg school system before the pandemic, for example because they come from families with a low socio-economic status, do not speak any of the languages of instruction at home and/or attend ESG or ESG-VP. In order to overcome these problems, it was recommended that (oral) German language skills should be promoted as early as possible and that disadvantaged students should be given targeted support at school.

The ÉpStan results from November 2021 now provide information on whether and how the competency scores of primary and secondary school students in Luxembourg have changed in the further course of the pandemic. Furthermore, they show how parents and students coped with the pandemic-related protection and hygiene measures in the

school year 2020/2021, and how the situation of disadvantaged students developed. It should be noted that not the same students or parents answered the questionnaires, but those from the following cohort. A longitudinal analysis of the effects will only be possible with the ÉpStan 2022. Initial findings on these questions are presented below – exemplarily for cycle 3.1 of the primary school (or 4.1 for the subject French) and for Grade 9 of the secondary school.

## Perception in primary school based on ÉpStan parent questionnaires

### Coping

According to their parents, Luxembourg's primary school students coped rather well with the pandemic-related protective and hygiene measures in the school year 2020/2021 in general, as well as in mathematics and French. In German, on the other hand, these were perceived as somewhat more challenging and especially so by primary school students who come from socio-economically disadvantaged households and/or who do not speak Luxembourgish or German at home. In comparison to the results from 2020, however, it is evident that primary school students, according to their parents, coped somewhat better with the protective and hygiene measures in the school year 2020/2021 than during the widely applied home-schooling in the spring of 2020.

### Motivation

Despite the pandemic-related protective and hygienic measures, the majority of primary school students were, according to their parents, just as motivated as in the normal school routine, and they also enjoyed school just as much. A comparison with the results from 2020 also shows that children were clearly more motivated in the school year 2020/2021 and had considerably more fun in class than during the widely applied home-schooling at the beginning of the pandemic.

### Additional support

While the majority of parents indicated that their child had received additional help from parents and/or siblings when needed in the last school year, the feedback regarding additional support from teachers and/or classmates was less consistent: Almost one third of the parents – and thus slightly more than in the ÉpStan 2020 – stated that their child had not received any additional help from teachers and/or classmates. However, if the socio-economic status and/or the language background of the students is also considered when looking at the results, it is evident that teachers have continued to offer their additional help in a differentiated way in the school year 2020/2021: As in the previous year, parents of socio-economically disadvantaged students and parents of students who speak neither Luxembourgish nor German at home reported slightly more frequently that their child had received additional support from teachers.

## The perception in secondary school based on ÉpStan student questionnaires

### Coping

Secondary school students coped (rather) well with the pandemic-related protective and hygiene measures, both in general and in the subjects German and French. In mathematics, however, these were perceived as somewhat more challenging. In comparison to the results from 2020, it is also shown that the students in general and

across all subjects coped somewhat worse than during the widely applied home-schooling. This finding is in contrast to the results from the parent questionnaires in primary school: here, parents reported that their child coped somewhat better with the pandemic-related protective and hygiene measures in the school year 2020/2021 than during the widely applied home-schooling in spring 2020. However, if one looks at the results of secondary school separately according to school tracks, it appears that primarily those students attending the ESG or ESG-VP coped somewhat worse in general as well as in the subjects of German and mathematics. Overall, however, the differences between students from different school tracks in terms of coping with the pandemic-related protective and hygiene measures seem somewhat smaller than in ÉpStan 2020. This is particularly evident in the subject French.

### Motivation

Only about half of all secondary school students stated that they were just as motivated as in the normal school routine, in spite of the pandemic-related protective and hygienic measures. The response to the question about fun at school was similar in all school tracks. Unlike in primary school, secondary school students were not more motivated in the school year 2020/2021 than during the widely applied home-schooling. Instead, the proportion of motivated students has decreased somewhat and the number of students who said to have enjoyed school has decreased considerably.

### Additional support

About two-thirds of secondary school students reported receiving additional help when needed in the school year 2020/2021, both from parents and/or siblings and from teachers and/or classmates. However, the additional help from parents and/or siblings seems to be less pronounced compared to primary school, possibly due to more demanding lesson content. Similar to primary school, the proportion of secondary students who reported receiving additional support from teachers and/or classmates in the ÉpStan 2021 has decreased compared to the previous year. At the same time, the feedback from autumn 2021 also indicates in secondary school that the teachers provided somewhat more targeted additional support in the 2020/2021 school year than at the beginning of the pandemic: It were primarily ESG-VP students who reported receiving additional support from their teachers in the ÉpStan 2021.

### ÉpStan test results in primary school

Overall, the ÉpStan test results in primary school remain stable even after two years of pandemic. The decline observed in 2020 in German listening comprehension competencies, which was evident among students in cycle 3.1 regardless of their socio-economic status, seems at first glance to have been compensated for: The competencies in German listening comprehension have improved overall and also across all social groups. However, if students are divided according to language background, a more differentiated picture emerges: Students who speak German and/or Luxembourgish at home perform significantly better in German listening comprehension than in the ÉpStan 2020. Students, who speak French or Portuguese at home, however, do not accomplish this improvement, but continue to achieve the lower level of competence observed after the first year of the pandemic

In addition, the ÉpStan 2021 results also show a slight decline in German reading comprehension in cycle 4.1. This decline is independent of the students' socio-economic status and language background. However, it is more pronounced for students who speak French at home and is already indicated in the results from cycle 3.1.

### ÉpStan test results in secondary school

Similar to primary school, the test results in secondary school – especially in the ESC – are largely stable. However, in the two other tracks (ESG and ESG-VP), there is a clear decline in German reading comprehension. While in ESC, this mainly affects students who speak French at home, this loss of competence can be observed regardless of the language background of the students in the other two school tracks (ESG and ESG-VP),

### Conclusions

While the November 2020 ÉpStan results were the first to provide comprehensive empirical data on the first six months of the pandemic, the ÉpStan 2021 results offer first insights into how the protective and hygienic measures taken to fight the COVID-19 pandemic in the 2020/2021 school year affected the academic performance of primary and secondary school students in Luxembourg, and how they were perceived by parents and students. Some key conclusions can be drawn from the above findings:

- The ÉpStan 2021 do not show a systematic negative trend that would indicate a general loss of competence of primary and secondary students in Luxembourg.
- At first sight, the competencies of students in cycle 3.1 in German listening comprehension have improved after the losses of 2020. However, if the students are divided according to language groups, a more differentiated picture emerges: Those students, who speak Luxembourgish or German at home actually show large gains in competence. However, this does not apply to students who belong to one of the other language groups (French or Portuguese), who continue to achieve the lower competence level observed after the first year of the pandemic.
- The performance level in German reading comprehension has decreased in 2021 in both primary and secondary school. In cycle 4.1, this loss of competence can be observed regardless of the socio-economic status and language background of the students. In secondary school (Grade 9), ESG and ESG-VP students are particularly affected.
- The COVID-19 pandemic continues to intensify already existing differences between advantaged and disadvantaged students. These differences are manifested both in the performance level of the students and in their perceptions and attitudes (such as their motivation) in everyday school life.

### Recommendations

The following fields of action can be derived from these observations:

- The promotion of German listening comprehension should be (further) differentiated in primary school, so that students who speak neither Luxembourgish nor German at home also benefit from this support.



- Skills related to German reading comprehension should be promoted in primary and secondary school in general, as the performance of many students in this area has declined regardless of their background characteristics.
- In addition, special attention should be paid to students who were already considered at risk before the pandemic (e.g. because they come from socio-economically disadvantaged households, do not speak any of the languages of instruction at home and/or attend ESG or ESG-VP), as they seem to be hit harder by the COVID-19 pandemic from an academic point of view.

### Outlook

Detailed longitudinal results covering the ÉpStan 2020 to 2022 will show the extent to which the findings presented here hold up as the pandemic continues and how students' performance evolves over time. Until these longitudinal results are published in the next education report ([bildungsbbericht.lu](https://bildungsbbericht.lu)), the ÉpStan 2021 test results are available on the ÉpStan dashboard ([dashboard.epstan.lu](https://dashboard.epstan.lu)), which allows for simple statistical analysis in the browser.