



What has the COVID-19 crisis done to our education system?

First insights from the November 2020 ÉpStan

Educational large-scale testing – Key to understand the impact of the COVID-19 crisis on national education

Large-scale tests do not only exist in the field of health, but also in education, where they are able to provide crucial information to analyse, understand and manage the impact of the COVID-19 pandemic on the education system of a country. With its exceptional and fully representative large-scale data from the Luxembourg School Monitoring Programme, the annual ÉpStan (Épreuves Standardisées; epstan.lu), the Luxembourg Centre for Educational Testing (LUCET; lucet.uni.lu) is aiming at contributing to an evidence-based educational dialogue.

The November 2020 iteration of the ÉpStan is giving first important insights regarding the impact of the COVID-19 crisis on the national education system. In the following, a first overview will be given based on this fully representative data from ca. 25,000 students from five different grades (elementary and secondary school), 15,000 parents (only elementary school), and comparative data for 160,000 students (elementary and secondary school).

The perception of home-schooling in elementary school based on ÉpStan parent questionnaires

Coping

In elementary school, parents indicated that students coped rather well with home-schooling in general and in the subjects of Math and French across all grades. Home-schooling in the subject German was however perceived to be more challenging, especially so for students from socio-economically disadvantaged households and/or students that do not speak Luxembourgish/German at home.

Infrastructure

Regarding the technical and material equipment (e.g., internet access, access to laptops/tablets and office supplies), parents generally reported to be rather well equipped, with the situation being slightly more favorable in socio-economically advantaged households.

Motivation

According to parents, the motivation of students during home-schooling was comparable to the regular school setting with girls having been perceived as slightly more motivated than boys. When it comes to the enjoyment of home-schooling, parents' perceptions were mixed and only approximately half of the students were perceived to consider home-schooling fun.

Additional support

Whereas the majority of students received, according to parents, additional support if needed from teachers and/or classmates, a quarter of the parents disagreed with this perception. Furthermore, students from socio-economically disadvantaged households were perceived to receive higher levels of additional support from teachers and/or classmates, an indication that teachers seem to have differentiated their additional support depending on the students' needs.

Contact with teachers

In elementary school, teachers and parents/students were found to have regular contact, mostly using e-mail or digital communication services such as Teams or Zoom. Besides remote communication, personal contact in the form of teacher meetings and/or visits was reported. Results further indicate that teachers used different ways of communication depending on the students' backgrounds, with socio-economically disadvantaged households reporting more contact with teachers, especially so in the form of additional phone calls, text messages and postal mail.

Combining work and home-schooling

When it comes to combining work and home-schooling, parents indicated in general a rather neutral perception, with parents from socio-economically disadvantaged households being slightly more positive about their possibilities to combine work and home-schooling, which could be related to the finding that these parents generally reported less remote work and thus had to balance remote work and home-schooling less frequently.

The perception of home-schooling in secondary school based on ÉpStan student questionnaires

Coping

In secondary school, students indicated across all grades to have coped rather well in general and in the subjects of German and French. Contrary to elementary school, home-schooling in Math was perceived to be more challenging. When looking at the different school tracks of the Luxembourgish secondary school system, especially the highest track students reported to cope well with home-schooling. The lower the track, the less well students reported to cope.

Infrastructure

Regarding the technical equipment, students generally reported to be rather well equipped, with the situation being slightly more favourable in higher school tracks and/or in socio-economically advantaged households.

Motivation

Approximately half of the students were less motivated during home-schooling than in the regular school setting with female students reporting slightly higher levels of motivation. When it comes to the enjoyment of home-schooling, students had mixed perceptions and one third of the students considered home-schooling as being less fun. Students in lower school tracks reported less motivation and considered home-schooling less fun than their peers from the highest school track.



Additional support

Students in secondary school reported to have received additional support if needed from both teachers/classmates and parents/siblings. Students from the highest school track reported to have received more additional support from parents/siblings than their peers in lower school tracks.

Contact with teachers

Secondary school students were in regular contact with their teachers. Whereas the main communication channel identified by students were communication tools such as Teams and Zoom, the usage of different communication tools proved to be more diverse than in elementary school. Results further indicate that teachers used different communication channels depending on the track with lower track students reporting higher levels of teacher contact, especially so in the form of phone calls, text messages and postal mail. Students from the lowest school track furthermore reported more personal contact with their teachers.

ÉpStan test results in elementary school

Whereas standardized test results were found to be stable (in comparison to prior cohorts) in Grades 1 and 5, the development in Grade 3 and especially so in German listening and reading comprehension was of special interest. Regardless of a student's socio-economic background and/or the language(s) spoken at home, third graders' competency in German listening comprehension worsened substantially. In comparison, students from socio-economically disadvantaged households and/or students that do not speak Luxembourgish/German at home did worse in German reading comprehension than their peers from socio-economically advantaged households and/or speaking Luxembourgish/German at home.

ÉpStan test results in secondary school

In secondary school, students attending the highest track showed stable (in comparison to prior cohorts) standardized test results in French and German reading comprehension as well as in Math. Students from the lower school tracks however were found to perform worse. Furthermore, female students seem to have handled the situation slightly better than their male peers, as can be seen by some gains for female students from higher school tracks in the language subjects. Regardless of track allocation, Grade 9 students from socio-economically disadvantaged backgrounds generally performed worse than their socio-economically advantaged peers and particularly so in German reading comprehension.

Conclusions

The data from the Luxembourg School Monitoring Programme provides important first insights regarding the impact of the COVID-19 pandemic on the national education system. Although collected with different methodologies and from different subjects (parents and students), the data on the perception of home-schooling and the standardized test results show a homogeneous picture and underline the quality and validity of the data. Based on the findings described above, the following main conclusions can be drawn:



- ÉpStan test results do not allow identifying a systematic negative trend in students' competency scores. While there are some losses and most notably so in German listening comprehension in Grade 3, there are also some gains.
- Overall, students and parents coped rather well with home-schooling without, however, particularly enjoying it.
- Students facing the crisis with favourable circumstances (such as a higher socio-economic status, a higher track allocation or speaking a language of instruction at home) managed to cope better with the pandemic. Conversely, this underlines that already existing inequalities in the Luxembourgish school system have in part been intensified by the crisis.
- Teachers seemed to have deliberately adapted their ways and frequency of communication to ensure contact with their students (and parents).

Recommendations

Based on the conclusions drawn, the following recommendations are made:

- Promoting German listening comprehension and oral competencies in elementary school is crucial and should be fostered as early as possible.
- Students from socio-economically disadvantaged backgrounds, students that do not speak at least one language of instruction at home and students allocated to lower secondary school tracks should receive more differentiated support.

Outlook

Although the November 2020 ÉpStan data allows first insights regarding the impact of the COVID-19 crisis on the national education system, the data that will be collected in November 2021 will allow to investigate whether the observed trends continue after further months of the pandemic. More detailed results from the November 2020 ÉpStan data will be published at the end of this year in the next Bildungsbericht ([bildungsbericht.lu](https://www.bildungsbericht.lu)). In the meantime, the ÉpStan 2020 test results have been made available in the ÉpStan Dashboard (dashboard.epstan.lu), which allows for easy in-browser statistical analyses of educational trends.