



LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère de l'Éducation nationale,
de l'Enfance et de la Jeunesse



UNIVERSITY OF LUXEMBOURG
Luxembourg Centre for
Educational Testing (LUCET)



ÉpStan 2024-2025

General information for subject teachers

IPS

Please **do not make any copies** of this manual and **return all material and documents**.

This manual is to be used exclusively within the *Épreuves Standardisées*.

General information on the ÉpStan

The *Épreuves Standardisées* (ÉpStan) serve as a school monitoring tool in Luxembourg. They consist of written competence tests that assess students' key linguistic and mathematical skills. Currently, competences in mathematics, in Luxembourgish and German listening comprehension (or in French listening comprehension as part of the pilot project "ALPHA - *Zesumme wuessen*"), as well as precursors of the written language acquired in cycle 1, are tested at the beginning of cycle 2 (2.1). Subsequently, at the beginning of cycle 3 (3.1), the competences acquired in cycle 2 in mathematics, in German listening and reading comprehension (or in French listening and reading comprehension as part of the pilot project "ALPHA - *Zesumme wuessen*") are assessed, and at the beginning of cycle 4 (4.1), competences acquired in cycle 3 in mathematics as well as in reading comprehension in both German and French are tested. At secondary level, at the start of 7^e and 5^e, competences in mathematics and in German and French reading comprehension are evaluated. In all participating classes, questionnaires are also used to collect data on key aspects of teaching quality, school climate and classroom climate, as well as on the students' motivation to learn (student questionnaire). In addition, a parent questionnaire (administered in primary schools) gathers information on students' socio-economic background through questions on the parents' educational level and professional activity.

Extension of the ÉpStan to the International Public Schools

Since the 2022/2023 school year, the *Épreuves Standardisées* (ÉpStan) have been progressively extended to the International Public Schools. Similar to schools following the Luxembourgish curriculum, academic competences of all students in P1/Stage 1, P3/Stage 3, and P5/Stage 5 classes in primary schools, as well as of students in S1/7^e and S3/5^e in secondary schools, are assessed. While mathematical competences have been tested since 2022/23 in all participating classes, starting from the 2024/25 school year, P1/Stage 1 classes in International Public Schools will also participate in other ÉpStan competence tests (e.g., listening comprehension in Luxembourgish as well as in the language of literacy acquisition) depending on their language section. During the 2024/25 school year, P3/Stage 3 classes will take part for the first time in so-called pretests (e.g., listening and reading comprehension in the language of their language section). These pretests aim to verify the content fit, format, as well as the feasibility of the tasks that have been validated in classes following the Luxembourgish curriculum, to ensure that they are also appropriate for students in International Public Schools. Therefore, the assessments in the form of pretests do not (yet) provide feedback on the students' results. In addition to the competence tests, the participating classes also complete the parent and student questionnaires.

Context of the ÉpStan

With large-scale international comparison tests (such as PISA), a shift in mindset towards systematic quality improvement and assurance in the school system has taken place in Luxembourg. National educational standards have been established and, with their legal grounding in 2009, have paved the way for a results-driven management of the school system, where achieving these standards is at the center of interest. In order to ensure a culture of quality through a systematic monitoring of the established educational standards, Luxembourg has implemented, with the ÉpStan, a national school monitoring tool. With the creation of the *Luxembourg Centre for Educational Testing* (LUCET), the ÉpStan were incorporated into the University of Luxembourg in 2014 as a structural mission of the government.

Selection of the assessed competences

A test of a few hours, based on standardized response formats, can only measure a limited selection of all the competences that are taught within the educational system. That is why a representative selection of competences, which can be measured economically and in a standardized way, has been made: mathematics, listening and reading comprehension in German and French. In the domain of mathematics, the tasks can be allocated to the following content areas: “Numbers and operations,” “Space and shape,” and “Size and measurement,” as well as to the two procedural competences of “Specific basic skills” and “Arithmetic problem solving.” The linguistic tests, on the other hand, each consist of tasks that can be allocated to the following two sub-competencies: “Locating and retrieving implicitly stated information, as well as globally situating texts” and “Applying reading strategies, analyzing, and interpreting texts.”

Development of the test items

The ÉpStan are standardized achievement tests that undergo multiple qualitative and quantitative verification loops. These loops are necessary to allow the comparison of competences between different school tracks as well as over time. The tasks used in the ÉpStan (referred to as items) are developed by teachers, members of the MENJE, and researchers from the LUCET. In addition to a multi-stage revision process, each item undergoes a pretest to specifically assess the quality of the questions. Only items that have been rigorously examined are integrated into the main test. One drawback of this approach is that teachers only gain a superficial insight into the tasks. This can be explained by two reasons: on one hand, the items need to be comparable in a certain way in order to contrast the results from different years. Therefore, the necessary items should not be published so that they can be reused in the coming years. The repeated use of items, referred to as anchoring, allows for comparisons of results over time. On the other hand, the development of items, as mentioned above, is very time intense. If a large portion of the items from each year were published, it would result in an overwhelming workload.

Standardisation and item formats

To allow comparisons of competences between different school tracks and over time, standardized tests like the ÉpStan are necessary. Unlike non-standardized tests, the ÉpStan guarantee objectively comparable criteria for all students in the same cohort. Both the structure and content of the test, as well as its administration and evaluation, are subject to strict requirements that prevent subjective biases, which can occur, for example, during class tests. Objective evaluation is facilitated by the use of multiple-choice questions and items with restricted response options, such as numbers or isolated words. These so-called closed or semi-open items ensure a uniform evaluation, which is generally difficult to achieve with open-ended questions requiring free-text responses. Moreover, the closed response format simplifies computer-based data entry, allowing for faster evaluations and feedback on results. This is why the ÉpStan are conducted in secondary schools on tablets and computers, while in primary schools, teachers enter the results into digital coding masks according to a clearly defined evaluation scheme. Open response formats provide useful diagnostic information and are therefore highly valued by teachers. However, they are difficult to reconcile with the goal of achieving a highly standardized and objective assessment of performance: they require significant correction efforts by specially trained coders and are thus time-consuming and costly. Given that scientifically developed closed and semi-open response formats can capture a wide range of complex competences, as defined in the educational standards and the *Socles de Compétence*, the ÉpStan exclusively rely on these types of format.

Questionnaires

The student questionnaire is used to gather information about the family background, the academic trajectory, the learning motivation, as well as the school and classroom climate. In primary schools, there is also a parent questionnaire, which aims to collect information about the family's socio-economic background; data that cannot be reliably obtained through the student questionnaire. All information is analyzed pseudonymously. At no time can the Ministry of Education, Children and Youth (MENJE) or the *Luxembourg Centre for Educational Testing* (LUCET) link the data from the two questionnaires to specific students or parents. Information about family backgrounds is necessary to conduct the statistical analyses for the "fair comparison" in the scope of the class report. In the "fair comparison," the influence of different student characteristics is taken into account. It examines the extent to which achievement differences between classes exceed what could be statistically expected due to the composition of the student population in a class. By comparing the competency profile of their own class to that of classes with a comparable socio-cultural and socio-economic composition, teachers who work effectively under "difficult" conditions can receive positive and scientifically grounded feedback on their class's performance.

Provision of feedback on the results

The evaluation of the collected data is published in a series of reports at different levels. At the class level, head or subject teachers receive feedback on the performance level of their class as well as on the performance of individual students (*individual level*). In primary schools, school presidents and the *Direction de région* receive a summary of the results from their school(s) compared to all the other schools following the Luxembourg curriculum (*school level*). For secondary schools, the results at the school level are made available to school directorates. Additionally, the results from schools are sent to the *Division du traitement de données sur la qualité de l'encadrement et de l'offre scolaire et éducative* of the MENJE. Finally, the ÉpStan dashboard, specifically created for this purpose, summarizes the results at the national level. This dashboard is accessible to all interested parties via the website <https://dashboard.epstan.lu>. In no case is it possible to draw conclusions about subordinate levels; thus, in the national report, the results of individual schools are not identified, school reports do not provide information on the results of individual classes, and it is never possible to identify individual students. In summary, it is worth noting that the ÉpStan significantly contribute to a comprehensive evaluation of the Luxembourg educational system. To achieve this, the ÉpStan are characterized by:

- A focus on the Luxembourg educational system and its specificities,
- The assessment of a broad range of areas: mathematics, Luxembourgish, German, & French, as well as questions regarding school and class climate and students' motivation to learn.
- The provision of feedback on results by the means of representative statistical data at the levels of students, classes, schools, and nationally.

Data protection

In accordance with the guidelines of the General Data Protection Regulation (GDPR) of the European Union, data protection is ensured through a pseudonymization procedure. Each student receives a unique numeric code to use for each test, which does not allow any link to their identity. This code is the only one used by the university for analyzing the test and questionnaire data. To also examine students' development over the years without violating their anonymity, each student additionally receives a unique identification number. The company *itrust consulting s.à r.l.* has been designated as the *Trusted Third Party* (TTP) to ensure the secure storage of the "keys" that allow the identification numbers to be linked to the students. Thus, it is guaranteed that no deductions about the students' identities can be made by either LUCET or the Ministry of Education, and the Ministry does not have access to the test results of individual students. For teachers to associate the students' results in their classes, they receive a list before the ÉpStan that allows them to link students to the corresponding numeric codes. This list is accessible neither to LUCET nor to the Ministry of Education, as it is only available to designated ÉpStan coordinators via *itrust consulting*.

Thank you for your support!



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