



DO THE CHANGES IN EDUCATION DETERMINE PUPILS' BETTER LEARNING ACHIEVEMENTS?

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SUMMARY

The Importance of the Audit

The results of the audits carried out by the European Commission, the Organisation for Economic Co-operation and Development and the National Audit Office of Lithuania (NAOL)¹ show that education of equal quality for all pupils is not ensured in Lithuania. The declining number of children of school age makes it difficult for public authorities to manage the State's school network. It is difficult to employ new teachers due to unattractive working conditions and uncertainty². The European Commission underlines the importance of ensuring the quality and efficiency of the education and training system. The number of pupils at all levels of education continues to decline, but the pace of education system adaptation to change is not sufficient. There are significant differences between urban and rural areas in terms of access to quality education services and learning achievements in general. It is, therefore, necessary to organise networks of educational institutions more efficiently, improve quality and ensure greater accessibility for disadvantaged groups³.

International studies on pupils' learning achievements⁴ and national assessments of pupils' learning achievements⁵ show that the gap between achievements of pupils in

¹ Public audit reports: 30/11/2016 No. VA-P-50-4-26 "Monitoring of Education", 28/11/2017 No. VA-2017-P-50-1-20 "Could Lithuanian Students Perform Better?", and 27/09/2018 No. VA-2018-P-9-1-7 "Do We Use the Pre-School Education Opportunities to Ensure a More Successful Future for Children".

² Public audit report, 27/09/2018 No. VA-2018-P-9-1-7.

³ European Commission, Commission Staff Working Document „Country Report Lithuania 2019“, 2019, p. 5.

⁴ Trends in International Mathematics and Science Study (TIMSS); Programme for International Student Assessment (PISA).

⁵ General Education Achievements Test (PUPP) and National Student Achievements Test (NMPP).

different socio-economic and cultural backgrounds, as well as between pupils attending urban and rural schools has not narrowed over decades. The pre-school education audit⁶ shows that no advantage was taken of its potential, as 36% of children from families at social risk are not educated according to pre-school curriculum, thus no equal opportunities for preparation for formal education and achieving better results in the future are created.

In 2015, it was decided⁷ to improve the financing model of general education schools, which had to be based on the principle of a class (group) basket. The new model was introduced on 01/09/2018 and according to it the majority of the funds (allocated to pay the salaries of teachers and other specialists implementing education plans) are calculated on the basis of the number of complete classes in a particular school. One of the tasks of the Government's plan for the Implementation of the 2016–2020 Programme in the field of education is the preparation and implementation of a full-time payment procedure for teachers in order to create attractive conditions for their careers⁸.

In order to assess the impact of changes in education funding models on the quality of education, whether in practice educational institutions properly apply legal acts regulating the payment of full-time work, what hinders the implementation of recommendations made by State auditors, the NAOL carried out an audit on the assessment of the education system progress.

Objective and Scope of the Audit

The objective of the audit is to assess whether progress in pre-school and general education is ensured. We chose to assess it according to the indicator of quality assessment of education – pupils' educational achievements⁹.

Audits were carried out for the period 2016–2019, but we have also used data from previous years and 2020 to perform a more accurate assessment. When examining educators' remuneration issues, the data for 2019 was assessed, as since 01/09/2019 an improved model of full-time payment has been applied.

Key Audit Questions:

- Whether the use of funds of educational institutions is effective;
- whether educational activities are organised in order to improve pupils' learning achievements in a balanced way;
- whether educational employees are remunerated in compliance with the requirements of legal acts.

⁶ Public audit report, 27/09/2018 No. VA-2018-P-9-1-7.

⁷ Decision No. XII-1557 of the Seimas "Improvement of the Financing Model of General Education Schools" of 19/03/2015.

⁸ Work 2.3.4 "Education and Science Funding Reform" of the Government's Action Plan for the Implementation of the Programme approved by the Government Resolution No. 167 of 13/03/2017.

⁹ International: *Trends in International Mathematics and Science Study (TIMSS)*; *Programme for International Student Assessment (PISA)* And national: Results of General Education Achievements Test (PUPP) and National Student Achievements Test (NMPP).

Audited entity - the Ministry of Education, Science and Sport, which participates in forming, implementing and ensuring State education policy, which is responsible for the quality of education, and coordinates the activities of education departments of municipal administrations in implementing the education policy.

We collected data from the National Agency for Education, 60 municipalities, 60 selected schools, and held discussions with representatives of the Ministry and its subordinate institutions. We conducted a pilot online survey of parents with school-age children.

The audit has been performed in accordance with the Public Auditing Requirements and the International Standards of Supreme Audit Institutions. The scope and the applied methods of the audit are described in more detail in Annex 2 “Scope and Methods of the Audit” (p. 48).

Restrictions of the Audit

Since Lithuania declared and introduced quarantine since 16/03/2020¹⁰, at the time of the audit the possibility to collect information from the assessed municipalities and schools was limited. Because of the declared quarantine, we were unable to visit the assessed 36 schools and 2 municipalities. Before quarantine, we sent questionnaires which were completed by 51 municipalities¹¹ (out of 60) and 57 schools¹² (out of 60). Not all the municipalities and schools that completed the questionnaires answered all the questions, and in the report, we provide the number of those who answered specific questions.

Key Audit Results

The progress of pre-school and general education is not sufficient. The number of pupils and educational institutions is decreasing, funding for education is growing, but the gap between the learning achievements of pupils growing in a favourable and unfavourable social, economic and cultural environment and attending urban and rural schools has not significantly decreased. There were no measures in the country to reduce the gap and to ensure equal quality education, the “quality basket” project was initiated, but the results of its implementation will be revealed later. Pre-school education is insufficiently exploited, and not all children of families at social risk are educated according to this pre-school educational curriculum. Not all schools monitor the individual progress of the pupil, are not adequately equipped with modern tools, do not always provide assistance (consultations) to the pupil and take measures to boost inclusive education. Improved

¹⁰The Government Resolution No. 207 “On Declaring Quarantine on the Territory of the Republic of Lithuania” of 14 March 2020.

¹¹Accordingly, in different sections of the report, we could rely on the different number of municipalities that responded: in Sub-section 1.3, on the basis of data from 48 municipalities, as 3 completed only part of the questionnaires.

¹²Accordingly, in different sections of the report, we could rely on different numbers of schools that responded: Sub-section 1.2 — data of 53 schools, as 4 completed only part of the questionnaires; Sub-section 1.3 — data of 50 schools, as 7 completed only part of the questionnaires; Sub-section 1.4 — data of 56 schools, as 1 completed only part of the questionnaires; Sub-section 2.2 — data of 53 schools, as 4 completed only part of the questionnaires; Sub-section 2.3 — (questions on ICT) data of 54 schools, as 3 completed only part of the questionnaires; Sub-section 2.4 — data from 53 schools, as 4 completed only part of the questionnaires.

legal provisions on the remuneration of educators do not sufficiently ensure clarity and transparency in their application.

1. The gap in pupils' learning achievements persists

- The results of the Programme for International Student Assessment (PISA and TIMSS) and the national tests (PUPP and NMPP), as well as the analysis of the auditors, show that pupils' learning achievements, in general, have not changed during the audited period and that the gap in learning achievements remained stable. As a result, the overall learning achievements of the country's pupils do not improve. The social, economic, and cultural environment of the pupil and the school area they attend (large city, urban, rural) have a significant impact on the gap in learning achievements. The gap in learning achievements of pupils from different socio-economic backgrounds has been discussed by researchers since 1995, but no effective measures in the country are foreseen. Without specific systemic measures to bridge the gap, a targeted increase in the overall level of pupils' learning achievements will not be ensured (Sub-section 1.1, p.15).
- Funding from the State budget for schools increased by around 20% during the audited period, but the share of funding for quality improvement (educators' qualification improvement and training measures) has decreased by 13% since 2017 and in 2019 total training funds amounted to only 1.9%. The funding from municipal budgets to maintain the environment (of school household) increased by 17.5% during the audited period. Among different municipalities, the share of this expenditure per pupil differs up to 4.3 times (from EUR 426.30 to EUR 1,813.99 per year). Overall, in school budgets, the share of environmental (economic) expenditure increased by around 1 percentage point each year, reaching 32% in 2019. The increasing funding of education from the State and municipal budgets and changes in funding did not have a significant positive impact on pupils' learning achievements (Sub-section 1.2, p.18, and Sub-section 1.3, p. 20).
- Since 2016, the share of combined classes has decreased by 21%: they accounted for about 6–7% of all classes of general education. 19% of all these classes are combined of 3 or more classes. Share of combined classes sets of 11 (out of 56) assessed schools accounted to more than 20% of the total number of classes sets. In addition, 8 out of 56 (14%) schools, regardless of whether they have combined classes or not, indicated that they combine subjects for classes of pupils of different ages and level. By combining classes and subjects, there is no possibility for pupils to ensure equal quality education (Sub-section 1.4, p. 22).
- The share of municipalities with schools with incomplete classes decreased by 12% (there were 52 in 2018 and 46 in 2019). In 2019, as many as 46 (77%) municipal schools had classes of this kind. We found that, for the period 2019–2020, less than a third of the municipalities that had allocated the funds provided additional funding for these classes and that the funds provided by them did not meet the need. Without additional funding for incomplete classes, education of equal quality is not ensured (Sub-section 1.4, p. 22).

2. The organisation of assessed educational activities insufficiently focused on improving pupils' learning achievements

- The proportion of children growing up in families at social risk and not educated according to pre-school educational curriculum increased by 12% in 2019. As many as 31 out of 50 (62%) municipalities assessed in 2019 did not intend compulsory pre-school education for any child. The number of pre-school children to be transported (up to 5-years old) has almost doubled (1.8 times). Having assessed the data provided by 41 municipalities, we found that in 2019–2020, around 64% of children in need of this service were not transported. In case of failure to ensure that all children from families at social risk are educated according to the pre-school education curriculum, equal opportunities for them to achieve better educational achievements in the future are not created (Sub-section 2.1, p. 24).
- The number of schools which monitor not only the change in grades but also the individual progress of the pupil is increasing (7 out of 41 in 2017 and 38 out of 47 in 2020), however, 6 out of 53 do not monitor at all and thus do not use individual progress data to improve the outcomes of the pupil's individual progress (Sub-section 2.2, p. 26).
- The scope of the provision of the Lithuanian school with modern educational tools (informational, communication technologies and natural science laboratories) is too low. In schools, the average number of pupils per computer was 5 in 2019, compared with 9 in 53 rated schools. Neither schools nor municipalities collected data on the personal computers of pupils and access to the Internet, and when the quarantine was announced in the country, there were difficulties in providing pupils with the necessary equipment for remote learning. Only 12 out of 57 schools assessed, which are large and medium-sized schools, have natural science laboratories. Without providing all pupils with access to modern educational tools, it is difficult to expect progress in their learning achievements (Sub-section 2.3, p. 27).
- 5 out of 53 schools evaluated do not meet the need for consultations. Pupils living away from school do not always have the opportunity to attend consultations after school because at that time they are transported home. Pupils of all grades, from elementary school to gymnasium, use tutoring services, more often in large cities. A 2019 survey of pupils (of 10th and 12th grade) and parents¹³ and an online pilot survey of parents with school-aged children¹⁴ conducted by auditors showed that about 30% of pupils study with tutors. Without providing consultations to all pupils in need, the opportunities to bridge the gap in learning achievements are not being exploited, and hiring tutors further increases the gap between pupils at social risk and those who are not at risk (Sub-section 2.4, p. 29).
- In 2019, the share of pupils in special education institutions amounted to 1.13% and remained unchanged during the entire audited period (in 2016 – 1.1%), therefore, a goal of 0.5% of pupils to study in these schools by 2022 projected at the National Education Strategy¹⁵ may not be reached. In addition, the Government's¹⁶ goal of

¹³ Available on the Internet at <https://strata.gov.lt/images/tyrimai/2020-metai/svietimo-politika/20200427-studiju-pasirinkimas-ataskaita.pdf>

¹⁴ Please note that the survey conducted by the auditors is not representative, which would allow to draw precise conclusions about the scope and need of tutoring services, as it was not accidental, it was not attended by parents who did not have Internet access.

¹⁵ Annex to the National Education Strategy 2013–2022 approved by the Seimas Resolution No. XII-745 of 23/12/2013, p. 25.

¹⁶ Work 2.2.3 of the Government's Programme Implementation Action Plan approved by the Government Resolution No. 167 of 13/03/2017.

having 75% of disaggregated special schools in 2020 (given that in 2020 there should be 11, while in fact are 40) (Sub-section 2.5, p. 31) will not be achieved.

3. Legal provisions on the remuneration of teachers do not sufficiently ensure clarity and transparency in their application

- With the allocation of additional funding and the entry into force of the amendments to the Law on Remuneration, preconditions have been created for achieving the goal¹⁷ set in the Government's Programme that the average salary of a teacher in 2020 should be EUR 1,289 (including taxes). Only teachers working full-time or having a greater workload (1,512 hours per school year) can earn such a salary. This is how 35% of teachers of general education schools worked in Lithuania in 2019. Small schools have fewer opportunities to ensure a full workload for teachers and to create more attractive working conditions. In 2019, in 21 schools assessed, the percentage of teachers working full-time and more accounted for 56.2%, compared to 23.4% in 10 small schools. The aim was to attract young educators, but their share has been decreasing every year since 2016, 3.47 % in 2019, and below the OECD average (10%) (Sub-section 3.1, p. 33).
- About 90% of grants allocated from the State budget for educating purposes are used to pay salaries of teachers and educating employees (in 2019 – about EUR 622 million). The regulations on the full-time remuneration of teachers introduced in 2018 were substantially revised and updated in 2019. Current legislation does not lay down the principles for the composition of a teacher's full-time work (workload structure) in cases where teachers have a workload higher or lesser than 1 full-time work-load, although this is relevant for more than 65% of teachers. Schools were granted the right to decide independently on the allocation of time to activities performed by the teacher for the school community and professional development, increase coefficients of the fixed part of the official salary, etc., however, shortcomings were found in more than 45% of the audited schools: internal legislation does not lay down the criteria necessary to justify objective decisions on teacher remuneration, and the documentation justifying the workload structure does not include specific activities for which teachers are remunerated (Sub-section 3.2, p. 35).
- There are currently insufficient automated tools developed by the Ministry to determine the workload of teachers and calculate salaries. Standardisation of workload documents for teachers, examples of good practice for the preparation of internal legislation in schools, consultation and information on the application of legislative requirements in specific practical situations would reduce the administrative burden on schools and ensure a uniform understanding and proper application of the provisions of the legislation (Sub-section 3.3, p. 39).

Recommendations

In order to improve the quality of education and make it more equal at the national level, pupils' learning achievements would not depend on their social, economic, cultural situation and whether they attend rural or urban, large, or small educational establishments, we make recommendations.

¹⁷Ibid, Work 2.3.4.

To the Ministry of Education, Science, and Sport

1. In order to reduce discrepancies in learning achievements of pupils, to plan and implement measures aimed at bridging the gap between pupils' learning achievements. Measures include the allocation of funds:
 - 1.1. for high-quality long-term maintenance of computer equipment and connectivity (2 audit result);
 - 1.2. for accessibility of laboratories for all pupils so that the practical tasks of the natural science subjects can be carried out by all in laboratories (e.g. schools equipped with modern laboratories should make them available to all pupils in the municipality) (2 audit result);
 - 1.3. strengthen the ability of schools to assess the individual progress of pupils in schools (2 audit result);
 - 1.4. ensure access to consultations for all pupils in need (2 audit result).
2. In order to ensure the education of equal quality and more efficient application of resources, provide for measures obligating to organise the educational process in such a way that there are no combined classes of 5–8 grades and combined compulsory subjects if the progress of pupils is not ensured (1 audit result).
3. In order to exploit pre-school education in a greater extent, by reducing the gap in educational achievements among pupils, especially among children growing up in families at social risk, taking measures to ensure pre-school education for children living in remote areas (e.g.: transportation and other) (2 audit result).
4. In order to make the provisions of the legislation on the remuneration of teachers clear and uniformly applied in schools:
 - 4.1. regulate the principles of the structure of the teacher's workload (proportion of hours/ranges and general principles for setting minimum hours for the community and professional development activities to be performed), in cases where the annual rate of hours is set above or below the total workload (1,512 hours) (3 audit result);
 - 4.2. to provide assistance in implementing the provisions of legal acts (preparing standardised and/or automated measures for the formation of the workload structure, providing clarifications regarding the application of the requirements of legal acts in specific practical situations, publishing examples of good practice in preparing school remuneration systems, workload structure) (3 audit result).

Measures and deadlines for the implementation of recommendations are provided in the Section "Recommendation Implementation Plan" of the report (p. 42).

During the audit, we additionally recommended¹⁸ that the Ministry set requirements for the allocation of training funds approved by municipalities; amend the requirements establishing an obligation for schools to allocate funds for their respective needs within the limits set (40% and 80%); to specify the expenditures that schools are allowed to pay from the State budget (this recommendation is planned to be implemented by the Ministry¹⁹ by 31/12/2021, i.e. to specify the Description of the Procedure for Calculating, Distributing and Using the Training Funds). For 12 schools we recommended to approve or revise the principles for the organisation of workload laid down in internal legislation. We provided 29 schools with observations on the elimination of other identified shortcomings: revision of remuneration regulations, documentation of the structure of teachers' workloads (the recommendations will be implemented in July–September 2020²⁰).

¹⁸ Letter No. SD-(9-9.3.1-E-6057)-547 of the National Audit Office of Lithuania "On Audit Results (Revision of Training Funds Description)" of 07/07/2020.

¹⁹ Letter No. SR-3592 of the Ministry of Education, Science and Sport "On Audit Results (Revision of Training Funds Description)" of 05/08/2020.

²⁰ 41 letters were sent to the school in May–July 2020 and the implementation period for the recommendations made was set on the basis of the school's replies.