

ESTONIA

Introduction

1. This note outlines key features of the arrangements for schooling in Estonia, and considers how these might contribute to Estonia's comparatively high level of educational outcomes, particularly as measured by PISA results. It is a background note intended to inform wider work on a comparative international analysis of schooling reform.

Demographic context

2. Compared to New Zealand, Estonia is a small schooling system. In 2013/14 there were some 155,000 students spread across 556 schools in the Estonian system.¹² (Total enrolments had declined by 14% between 2007/08 and 2013/14, largely driven by an aging population.)
3. The Estonian system is characterised by diversity in the sense that nearly 30% of students are Russian speakers. However, many of these students are educated in Russian medium schools, reducing the level of diversity at the individual school or class level.

Structure of system

4. The national level government decides the national strategies for education, approves the national curriculum (framework), establishes minimum salary scales for education staff and monitors the overall system. Below this at the county level (15 in total), the government structure includes a department of education which is involved in the supervision of schools at a regional level.³
5. The majority of schools are operated by municipalities, with these accounting for around 92% of enrolments. Other schools are directly operated by the national level government⁴ or private providers. Private schools were first allowed in 1998 and operate under substantially the same legal framework as municipal and state schools, and are funded to similar levels (although they can also seek funds from parents). Overall private schools account for 5% of student enrolments.
6. Separately municipalities have responsibility for keeping registers of children in compulsory education age and monitoring their attendance and providing school medical services and meals (see reference below).

¹ OECD, School Resources Review, Estonia Background Paper pages 33, 34 and 36.

² Down from 722 in 1998/99.

³ I have not got a clear understanding of the role of the county level.

⁴ These primarily operate at the senior secondary vocational level – the role of these schools is increasing with the rationalisation of the school network in light of the decline in population.

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7. Children start school at age 7, and schooling is structured into a basic education (grades 1 to 9) and senior secondary education (grades 10 to 12), of either a general or vocational nature.

Achievement

8. Estonia performs strongly in relation to its provision of, what it terms, 'basic education'. It is one of the top performing countries in PISA, scoring above average in reading, maths and science. Since 2006 it has improved its performance in reading and maths, and maintained its performance in science.⁵ In 2015 it was ranked 3rd for science, 9th for mathematics, and 6th for reading. In 2012, Estonian students also performed above the OECD average in creative problem solving.
9. Estonia also performs well in terms of equity, with one of the smallest proportion of students at the lowest level of achievement⁶ and children's socio-economic status having a lesser impact on their educational achievement. The differences in performance between schools are also relatively small, although the average performance of students in Russian-medium schools is poorer than for other Estonian students.
10. Estonia is somewhat less strong in provision at the senior secondary level. The government is seeking to strengthen vocational education to make it attractive for more students, and is concerned that the development of the best senior secondary students is not supported as much as it could be.

Culture that values education and a strategic approach

11. Education is valued by the population and students are motivated⁷, creating a culture which is conducive to good educational outcomes. A possible additional factor, given Estonia's history and relatively recent independence, is a widely shared national commitment for Estonia to succeed⁸. Further it would appear that the system has been underpinned by a shared vision around education. In the early stage of its independence, Estonia was successful in developing a consensus around education, with the development of Learning Estonia in the late 1990s – a strategy which looked out to 2015 and guided developments over that period. This has more recently been followed by Learning Estonia 2014

⁵ Interesting to note that the cohort of children who completed their basic education in 2006, were the first cohort to have had their entire schooling under the curriculum established following independence.

⁶ Although this marginally deteriorated in 2015 compared to the earlier PISA cycles.

⁷ A possible contributing factor is that placement at the upper secondary depends to some extent on achievement at the end of one's basic education at year 9, with enrolment in upper secondary schools seeming to be competitive.

⁸ In 2001 the OECD noted in its review of policies since independence – "The OECD teams were especially impressed by the dedication of teachers, professors, school directors and university leaders who despite exceptionally difficult times have preserved, maintained quality and led the way in changes necessary to prepare students to participate in democracy and a market economy", page 28

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to 2020. Estonia appears to have maintained a strategic and coherent approach to education policy.

Commitment to equity and wider policies that support equity

12. A strong commitment to equity appears to run through the school system, with an expectation for success for all children. Maintaining equity of outcomes appears to be a key driver at the national policy and school level.
13. Comparatively, schools in Estonia are not highly socially economically segregated.⁹
14. Also wider social policies contribute to mitigating the impact a child's family background on their learning. There is a high level of participation in preschool education (see below) with this supported by subsidies for low income families.
15. Schools in Estonia are also the vehicle through which children access key social services – all children are provided a government funded lunch, and basic health services are provided through the school. Schools would also appear to have good access to services such as psychologists, speech therapists and social education workers.¹⁰
16. A further feature of schooling arrangements is the 'long day programme' which most schools appear to provide. The nature of the programme is regulated by the government, with schools required to provide supervision of homework as well as youth and/or hobby activities.
17. A related and interesting element of Estonian policy is the commitment to youth programmes –with this a strategic focus reported on annually by the Ministry of Education and Research. Municipalities are required to fund the opportunity for every child to participate in one youth/hobby activity per week with this providing instruction in activities in sports, technology, culture, nature, music or other arts.
18. This policy appears to align with the goals of fostering good citizens and of supporting equity by ensuring children have a minimum range of life experiences, as well as to foster non-cognitive competencies.

⁹ This is interesting given that choice is now a feature of the system. However, student selection into 'choice schools' tends to be based on academic grades, and overall the school system and wider social policies appear to reasonably successfully mitigate the impact of socio economic status on educational achievement.

¹⁰ It would be useful to do an analysis of the average number of these specialist professions compared to New Zealand.

Preschool education

19. Children can attend preschool from age 3 to 7, and participation is high with 87% of three year olds and nearly 94% of children aged four to seven attending¹¹. The vast majority of children attend municipally owned preschools and the programmes appear to be full day. Municipalities are obliged to ensure that sufficient places are available to meet demand.
20. In part, the Estonian government attributes the high level of achievement in schools to this high level of participation in pre-school education together with its quality. Preschools are educationally focused (there is a preschool curriculum), and there appears to be particular attention given to the development of language skills. Children for whom Estonian is a second language, receive support to learn Estonian from age 3.
21. There is also a system for the sharing of information between the pre-school and school level. On leaving preschool children are issued with a certificate that records their development, which parents submit to the child's school.

The extent of school autonomy

22. Schools, although primarily owned by municipalities, operate within a framework set by the national level government. The OECD characterises Estonian schools as having a high level of autonomy. This autonomy primarily sits with the school director who is appointed by the owner of the school (and therefore in most cases by the municipal government). Importantly, this autonomy operates within a strong framework of minimum requirements, which would be seen as prescriptive in the New Zealand context. At an informal level, there also appears to be ongoing dialogue between the director and the municipal office responsible for education.
23. The director has autonomy to select and appoint staff and to decide on the use of different parts of the school's budget, including setting salaries (subject to these not being set below specified minimums).¹² The curriculum is also determined at the school level, against the backdrop of a national curriculum framework which sets expectations for learning outcomes to be achieved at each level.¹³ The curriculum is explicit about what children need to know at each level, and schools have the flexibility about how to teach it. (There have been a number of adjustments to the

¹¹ Under the age of , children attend crèche.

¹² There would appear to be a number of different tagged allocations – for example, there is a separate allocation for professional development of staff which must be used for this purpose.

¹³Autonomy relating to detail of the curriculum and teaching and learning practice, was established immediately after independence and aligned with the shift to a democratic society by providing a protection against centrally driven ideological teaching.

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curriculum since independence, however compared to, say Scotland, this does not appear to have been such a 'disruptive' change. It is difficult to determine whether this is because change has not in practice been fundamental.)

24. Important elements of the daily school routine and how schools operate are prescribed by law, for example, the number of hours of learning (with this progressively increasing with age level¹⁴), the structure of the school day including the length of each lesson¹⁵, maximum class sizes.¹⁶

Some key related features

25. The specific limits on class size together with a number of other key elements of system design and practice maybe an important in explaining Estonia's achievement levels:

- Over grades 1 to 9, the maximum allowed class size is 24 (presuming all children in the class are at the same grade level).¹⁷¹⁸ Where students from two or three grades are in a single class, the maximum is 16¹⁹. In practice, given the small size of many schools, actual class sizes are often below these limits, with Estonia having some of the lowest average student-teacher ratios in the OECD.
- It appears to be standard practice for students to have specialist teachers from grade 4, so that teachers are likely to have higher levels of subject knowledge²⁰.
- The vast majority of schools (79% in 2013/14) operate across grades 1 to 9, or grades 1 to 12. On average therefore students in Estonia, especially during their 'basic' education are likely to be making fewer school transitions. (This arrangement may also contribute to the viability of specialist teaching.)

Quality teachers and educational leaders

26. Estonia has a strong teacher workforce, although going forward it faces increasing challenges relating to the aging profile of the workforce and difficulties in attracting young people into the profession (notwithstanding teacher salaries having been increased by more than 50% over recent years).

¹⁴15 hours a week at grade 1, raising to 24 hours a week at grade 9

¹⁵ 45 minutes

¹⁶ The law also requires the school, at a minimum, to have an annual development discussion with each student and their parent(s). If parents fail to attend on two consequent occasions they are reported to the local municipality, which is responsible for school attendance and child well-being.

¹⁷ For students at the senior secondary level this is 36, but the intention is to reduce it to 28.

¹⁸ This can be increased to 26 with the approval of the Board of Governors.

¹⁹ In comparison our funding model at the primary level uses a maximum of 25 students with these students potentially spread over 8 year levels. In meetings last year the technical reference group for small and isolated schools recommended reducing this to 16.

²⁰ E.g teachers not being confident in mathematics has been identified as a challenge in raising New Zealand maths achievement at the primary level.

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27. In 2013, some 93% of teachers in general education (i.e. excluding vocational education) had qualifications at the Masters level. In Tallis 2013, virtually all school leaders sampled reported that they had followed a school administration or principal training programme.
28. It is also suggested that in Estonia schools are not systematically different in terms of the qualified teachers they have. (However, thus far I have not been able to identify how this has been achieved, especially given employment decisions are made at the school level.)
29. During the 2000s teacher education was strengthened through a ten year reform programme. A feature of the reforms was the introduction of a one year induction programme, with mentor support from master teachers²¹.
30. More recently, 2013, teacher professional standards and career based competencies were put in place together with a requirement for ongoing professional learning for teachers and school leaders. (This requirement for continuous professional learning sits in the context of a broader strategic objective for life-long learning for all.). While this particular set of reforms could be expected to have a positive impact going forward, they were not sufficiently embedded to explain performance in PISA to date.
31. Teachers participate in professional appraisal, but there is currently no appraisal of school leaders.

Horizontal accountability – the middle level²²

32. There are indications that there is relatively strong horizontal accountability within the Estonian system and that they may have been successful in developing, what the OECD refers to as, a 'meso' level which supports the dynamic of continuous improvement and the sharing of ideas and excellence..

Board of Trustees

33. In 2016, the OECD observed that school boards to link school processes with the school community are well developed in Estonia.²³²⁴ The Board primarily has an advisory (and challenge) role in support of the school director and owner – 'providing an expression of opinion'. (One of the

²¹ This includes seminars over the school holidays where young teachers analyse their experiences gained through the first year of work, discuss and analyse problems they encountered and find solutions together. Estonian Ministry of Education and Research, Training and Development Activities (accessed 22 May 2018).

²² I have used this title given the OECDs growing emphasis on the role of a meso middle level.

²³ OECD, Review of Resourcing, Estonia country report

²⁴ OECD, Review of Resourcing, Estonia country report

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few areas where Board approval is required, is any increase in class sizes from 24 to a maximum of 26.)

34. The Board is a standing body and its function is to ensure the joint activities of the students, teachers, owner, parents of students, graduates and organisations supporting the school in guiding, planning and observing teaching and education, and creation of better opportunities for teaching and education. The school director is required to report to the Board.
35. The Board is formed, and its procedures determined, by the owner of the school – and hence in most cases by the municipal government. It comprises representatives of the owner, of the Teachers Council, of parents, of graduates and other organisations supporting the school as well as of the student council (if it exists). Boards of Trustees usually meet two to three times in a year, but are legally required to meet once every four months during the school year.

Teachers Council

36. All the teachers in a school are members of the Teachers Council. The functions, rules and procedures of the Council are established by the Minister of Education and Research (not the school owner).
37. The responsibility of the Council is to organise, analyse and assess teaching and education and make decisions required for the management of the school. The Council also has a particular role in assessing whether students have met the achievement standards to move to the next stage of schooling.²⁵
38. Prima-facie, an anomalous characteristic of the Estonian system is the comparatively limited time the school director gives to educational leadership. In part this could be because this leadership is delegated to the deputy/head teacher, but may also be related to the role of the Teachers Council. In concept the role of the Council suggests an expectation for leadership of teaching and learning across all teachers.
39. A potential area for further work in understanding Estonia's level of achievement is to seek to develop a better understanding of the role of this Council. It could be an important avenue for supporting collaboration and sharing of best practice within a school, and supporting school improvement.

²⁵ At the end of grades 3, 6 and 9.

Wider networks

40. There are indications that the national government through the regional structure of government in counties and municipalities support the development of networks, especially at the school director level. Further, some media reporting suggests a strong social network across the leadership of the system, possibly facilitated by the small size of the system, which could support challenge and enable system school leaders to be supported by 'critical friends'.
41. The development of this network might have been facilitated by the substantial dialogue between school leaders, the respective levels of government, and academics from Tartu University and Tallinn University of Education Sciences on the principles and vision to underpin the system that occurred in the early stages of independence. A number of initiatives in that period also supported collaboration between school directors. In its 2001 Review, the OECD noted the team was especially impressed by the extent to which Estonia recognises the need for support as illustrated by the networks developed from the Distinctive Schools project and the current quality schools initiative.²⁶
42. In the more recent OECD Review of Resourcing, Estonia Country Report the OECD noted the good investment in infrastructure facilitating system learning and adjustment, such as the exchange of information between school directors and the network of private and university based research centres whose work does seem to be taken seriously in policy discussions.²⁷

Quality assurance and system monitoring

43. The key mechanism for quality assurance is internal self-review by schools, with this sitting alongside the requirement for a school development plan. Together these requirements appear to support a process of continuous improvement at the school level. External review – by the equivalent of ERO – is less developed,²⁸ and there are indications that the Estonia authorities do not see this adding particular value given their context.

²⁶ Distinctive schools was a vehicle for multiple initiatives in curriculum development, school renewal and improvement of school management. The quality school initiative involved 40 pilot schools and informed the system for internal and external school evaluations. OECD, Reviews of National Policies for Education: Estonia 2001, pages 84-5.

²⁷ Tartu University and Tallinn University of Educational Sciences appear to continue to be important. In 2001 the OECD suggested that work by academics at these universities reflected the most forward thinking in reform in OECD countries at that time. In 2002 Tartu University established a research and development unit to support continuous development of the curriculum at the national level by bringing together educational researchers, curriculum experts and teachers.

²⁸ This seems to relate to situations where specific problems have been identified/concerns raised. The law provides for state supervision of schools, including review, making proposals for improvement and the issuing of directions (section 84)

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44. The school director is required to undertake an internal evaluation every three years, which is submitted to the owner of the school. Its purpose is to ensure the needs of students are being met and the consistent development of the school. Teaching and education and management are analysed, their effectiveness evaluated, and strengths and weaknesses identified. This then informs the school development plan which must also be prepared on a three yearly basis, and specifies directions and areas for development for the school, and the related plan for in-service training for teachers.
45. The internal evaluation and the development plan are prepared in co-operation with the Board of Trustees, Teachers Council and experts from the school or external experts. The Ministry of Education and Research also has a role to counsel schools on the preparation of their internal evaluation. Both the internal evaluation and the development plan are submitted to the Board of Trustees and the Teachers Council for 'the expression of an opinion'.
46. The internal review is complemented by a system of national assessment, which is now well embedded with Estonia beginning its development in 1997. This is combined with a highly developed national education information system that allows the monitoring of many local and institutional level processes.
47. The purpose of the national assessment system is to "give students, parents, schools, owners of schools and the state as objective and comparable feedback as possible on the attainment of learning outcomes provided in the national curricula and the effectiveness of teaching and learning in schools and provide the state with the necessary information to make education policy decisions". The system uses sample based standard tests at grades 3 and 6, harmonised final examinations of basic schools²⁹ (grade 9) and state examinations (grade 12).
48. The Ministry of Education and Research undertakes an annual analysis of system performance. Publication of the results at an individual school level occurs only in relation to the grade 12 examination.

Role of Choice and competition

49. The OECD, in a recent report,³⁰ attributes some of Estonia's success in raising achievement to the role of school choice. Choice is a feature of the system. For example, in 2001, 61.8% of students participating in PISA attended schools where the principal reported that they compete for students in the same area.

²⁹ Cover Estonian language, mathematics and a subject chosen by the student among a certain number of subjects.

³⁰ Review of Resourcing Estonia Country Report.

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50. However the basis for the conclusion that this has been a driver of achievement, is not clear (at least to me). Further investigation is required around how important this factor is in practice, in terms of the dynamics that drive system performance.
51. The way choice operates is materially different from New Zealand – it goes hand in hand with selective entry.
52. Opportunities for choice in school provision primarily exist in city areas. While private schools provide one element of choice – their overall impact in contributing to educational outcomes is likely to be small, given the small fraction of students they educate. Also unlike New Zealand, these schools are not ranked as having the highest achievement levels.
53. The dynamic of choice appears to be concentrated around a relatively small group of public 'elite' schools,³¹ primarily located in the two largest cities. Choice may also have been enabled more generally by the overcapacity in the school system as a result of demographic change.
54. Under the legal framework, children have a right to attend the basic school assigned as their 'school of residence'. Parents may seek to enrol in an alternative school if there are vacant positions.³² The elite schools are 'inter-district' and are not assigned as a 'school of residence' for any students. In effect this means that this group of schools can fully select its students.
55. It is unclear whether municipalities actively expand capacity in schools where there is high demand, but in the material reviewed to date this sense did not come through with references to 'managing oversubscription'.
56. Where parents are seeking to enrol their child in other than their 'school of residence', schools have the right to determine the procedure for acceptance and to accept or reject students. Entry is generally based on academic selection. Given the structure of the Estonian school system, this selection occurs at an early stage in a child's education – often at grade 1 – with children taking an aptitude test. It is common for children to be 'prepped' for these tests.³³
57. At the senior secondary level there also appears to be selection of students into the 'gymnasium' or vocational schools.

³¹ The genesis of these schools seems to be a system of elite schools from the Soviet era.

³² It is unclear whether municipalities actively expand capacity in schools where there is high demand, but in the material reviewed to date this sense did not come through with references to 'managing oversubscription'.

³³ Kaire Poder, Triin Lauri, Valeria Ivaniushina, Daniel Alexandrov, Family Background and School Choice in Cities of Russia and Estonia, *Selective Agenda of the Soviet Past and Present, Studies of Transition States and Societies*, Volume 8, Issue 3, 2016.

58. An interesting issue is the apparent equity of educational outcomes, given the element of selectivity and choice within the system. Recent analysis by academics associated with Tartu University suggests that choice associated with selective entry policies marginally magnifies the impact of family background on achievement.³⁴

Conclusion

59. It is likely that Estonia's educational performance reflects the interaction of multiple features of system:
- development of a shared vision and a long term strategic approach, supported by strong policy leadership;
 - autonomy that operates with a framework of minimum requirements and ownership of most schools by municipalities;
 - governance which gives decision making authority to the school director but simultaneously distributes education leadership through the school (role of Teachers Council) and enables challenge by the Board of Trustee;
 - a focus on continuous improvement underpinned by internal self-review;
 - an active network across schools to support sharing of ideas;
 - system monitoring through a 'reasonably light touch' system of national assessment and a well-developed information management system.
60. At the same time, the contribution of high preschool participation, the provision of social services within schools to mitigate the impact of family background, low student teacher ratios, the role of specialist teaching, and the lower incidence of school transitions are also likely to form part of the explanation. However, the extent to which choice is a driver of observed results is less clear.

³⁴ Kaire Poder, Triin Lauri, Valeria Ivaniushina, Daniel Alexandrov, Family Background and School Choice in Cities of Russia and Estonia, Selective Agenda of the Soviet Past and Present, Studies of Transition States and Societies, Volume 8, Issue 3, 2016.

References

Government of Estonia, Basic School and Upper Secondary School Acts (riigiteastaja.ee accessed on 22 May 2018).

Ministry of Education and Research; Annual Analysis by the Ministry of Education and Research, 2017, Summary, Estonia

OECD, Reviews of National Policies for Education: Estonia 2001

OECD, Education Policy Outlook Estonia, April 2016

OECD, Review of School Resourcing, Country Report Estonia 2016

OECD, Review of School Resourcing, Background Report, Estonia

International Education News, 10 surprises in the high performing Estonian Education System, internationalednews.com, accessed 21 May 2018

Kaire Poder, Triin Lauri, Valeria Ivaniushina, Daniel Alexandrov, Family Background and School Choice in Cities of Russia and Estonia, Selective Agenda of the Soviet Past and Present, Studies of Transition States and Societies, Volume 8, Issue 3, 2016.