

What Are the Scenarios for the Teaching Profession in Estonian Schools of the Future?

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Estonia on the global education map

- Estonia as a small country with a population of 1,3 MM people in the North-East of Europe.
- Consistent high performer in the PISA tests since 2006 in mathematics, science and reading (in 2018 and 2022 top performer in Europe and among the eight best in the world).
- Emphasis on school autonomy, equity and self-directed learning.

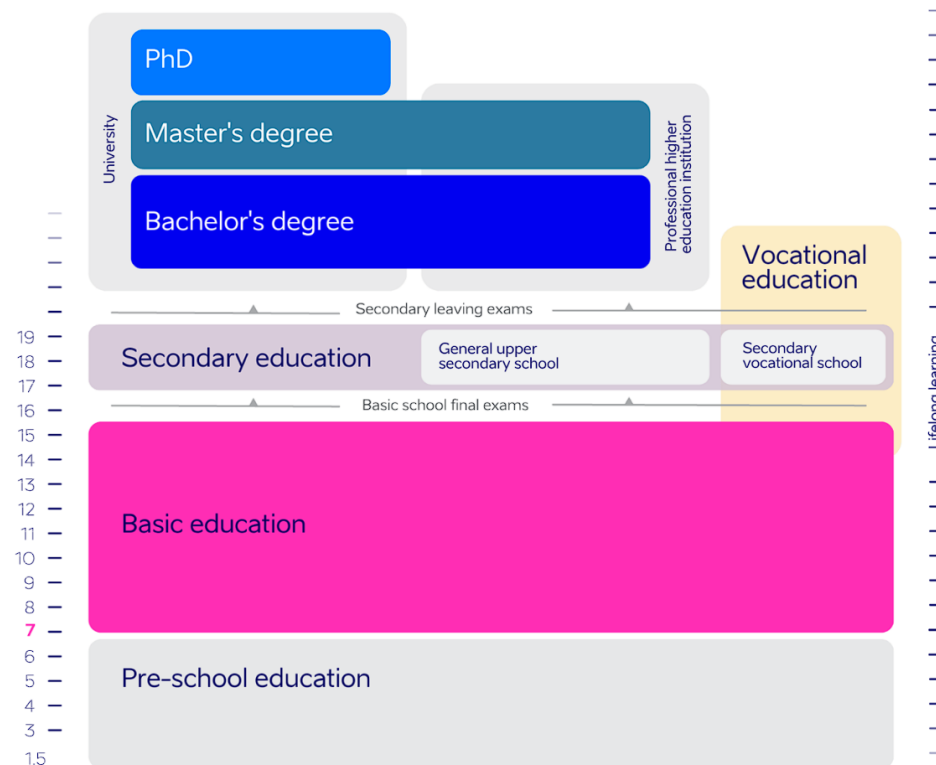


The Estonian Education System

Formal and Nonformal Education

Formal education

Formal structure



Some key features

Comprehensive basic school (9 years)

High expectations for teachers: kindergarten teachers must have higher education and pedagogical competence, school teachers must have a master's degree and pedagogical competence.

All general education students are entitled to free school lunch, textbooks and transportation.

Free special support is offered to students with special needs.

Nonformal education

- A wide network of hobby education schools and hobby groups in schools, e.g., music, art, sports, drama, robotics etc.
- Youth centres, summer camps, including youth summer work camps.
- For younger students, all-day programs blending study and play.
- In the 2019-2020 academic year, 90 percent of students in comprehensive schools participated in some form of hobby education (Eisenschmidt et al. 2024).
- At least one extracurricular activity is free for all students.

School and teacher autonomy

- Since 1996, schools have been required to develop a school curriculum based on the national framework curriculum.
- Space for adding own content, electives or offering different profiles is larger in the upper secondary school.
- Teachers can decide on the methods and teaching materials or the curriculum integration.
- Principals can “hire and fire” teachers, decide on how to allocate the budget and evaluate the needs for teacher training.
- A diverse school network: schools emphasize different fields of study, and private schools offer educational alternatives – e.g. Montessori or Waldorf education, bilingual schools, democratic schools etc.
- But: freedom and space are perceived as less in exam subjects (Erss, Kalmus & Autio, 2016).

Current reforms

1. Transition of all schools to Estonian instructional language
2. Extension of compulsory education
3. Vocational education reform
4. The AI-Leap

Transition of all schools to Estonian instructional language

- The gradual transition of schools with Russian language instruction to Estonian language instruction that started in September 2024 and is expected to be completed by 2030.
- The aim of the reform is to offer all students a high-quality education and good Estonian language skills, create a better social cohesion and equal opportunities in the labour market.
- Reasons for the reform:
 - Integration problems due to an ethnically segregated school system: 25% of the students attend schools with Russian instructional language.
 - Difficulties of Russian-speaking students in participating in Estonian society, higher education and the labour market due to poor Estonian language skills.
 - Difficulties of Russian-speaking teachers in updating their pedagogical skills due to a lack of Estonian language skills.
 - Gap in PISA tests: the Russian-speaking children lag around 40 points behind Estonian-speaking children in literacy, mathematics and science.

Extension of compulsory education

- Currently, the compulsory education lasts 9 years: until the completion of basic education or until a student turns 17.
- Starting from school year 2025/2026 the compulsory education includes completion of upper secondary general or vocational education or lasts until a student turns 18.
- The wording changed: instead of “compulsory schooling” there is now “compulsory learning”.
- Reasons for the reform: basic education is not enough in modern society; concern for an increasing number of NEET youth since 2016 (from 12% to 14,3%) and youth without upper secondary education (from 12% to 13%).
- Extra preparatory year after basic education for these students who have gaps in their education or have difficulties deciding their educational or career path.

Vocational education reform

- From 2025, the reform adds one extra year (instead of 3-year programmes 4-year programmes) to vocational upper secondary education and increases the share of general education studies and general competences.
- Reason: Transitions from VET to higher education are difficult and rare because VET does not offer sufficient general education competencies and is therefore seen as a less attractive educational choice.
- The aim of the reform is that 40% (instead of 25% currently) of basic school graduates choose vocational upper secondary education by 2035 and that the offer of vocational programmes is better in line with the labour market demand.
- Educational centres will be created that unite general and vocational upper secondary education in the same institutions.
- The opportunities for adult learners to get free vocational education will be reduced: those with a completed vocational or higher education within the last 10 years will have to pay for their studies.

The AI-Leap

- AI Leap is a collaboration project between different sectors: digital advisory chamber of the President of Estonia, Ministry of Education and Research and private sector entrepreneurs.
- The aim of the AI-Leap is to keep Estonian education at the top level by offering AI tools specifically modified for educational purposes for students and teachers to use and guide them in using them smartly.
- Currently, educational psychologists and other scientists have been collaborating with ChatGPT to create an AI assistant that supports learning, instead of giving ready-made answers.
- The prototype of the AI learning tool has been created and is currently being tested.
- Stage I: since September 1st, 2025, upper secondary students from grades 10-11 and their teachers got access to the best AI learning applications.
- Stage II: from 2026, the AI leap will be expanded to include vocational schools and new 10th-grade students entering upper secondary schools (TI-hüpe 2025).

Visions for future schools in Estonia for 2040

Summary of the roundtables at the seminar “Future school 2040” in Viljandi in 2024,
organised by the NGO Estonian Education Forum

Questions for brainstorming

The stakeholders invited to the seminar “Future school 2040” included teachers, parents, students, scholars, technology entrepreneurs, school leaders, and policy makers. Two questions had to be answered:

1. How to ensure that each child who grows up in Estonia by 2040 receives the best education, which lays the foundation for personal well-being and self-actualisation, ensures the preservation of the Estonian culture, the Estonian state and the success of the Estonian economy in a world full of risk and crises?
2. What are the roles of different participants of the education process in solving the regional, socio-economic and pedagogical problems?

Assumptions for the brainstorming

- Current Estonian Education Strategy 2021-2030 emphasizes learner-centred education, student and teacher wellbeing, learning in various places, including non-formal and informal education.
- Global megatrends: climate change, geopolitical changes, technological innovation and the prevalence of AI in education and at work.
- Current concerns to be addressed: an increase in educational inequality, negative regional trends, insufficient use of the educational potential for the development of Estonia, the existence of educational “silos”, and lack of cooperation between different educational institutions, and increasing mental health problems among students.

The changing role of teachers and students

- Turn learners into creators, not just consumers of knowledge.
- Application of knowledge in different fields of life and work, incl. in an entrepreneurial way to create new products and services.
- Teachers as supervisors and guides support the self-regulated learning of students.
- AI is expected to take over more routine tasks and free time for teachers to communicate with students and add more contemporary topics.
- Differentiation of teacher roles: teacher-leaders, assistant teachers.
- Inclusion of experts and specialists from various fields in teaching.
- School and teacher autonomy must be preserved: rhizomatic connections with other local institutions.

Developing scenarios for tomorrow's teaching profession (Loogma et al. 2020).

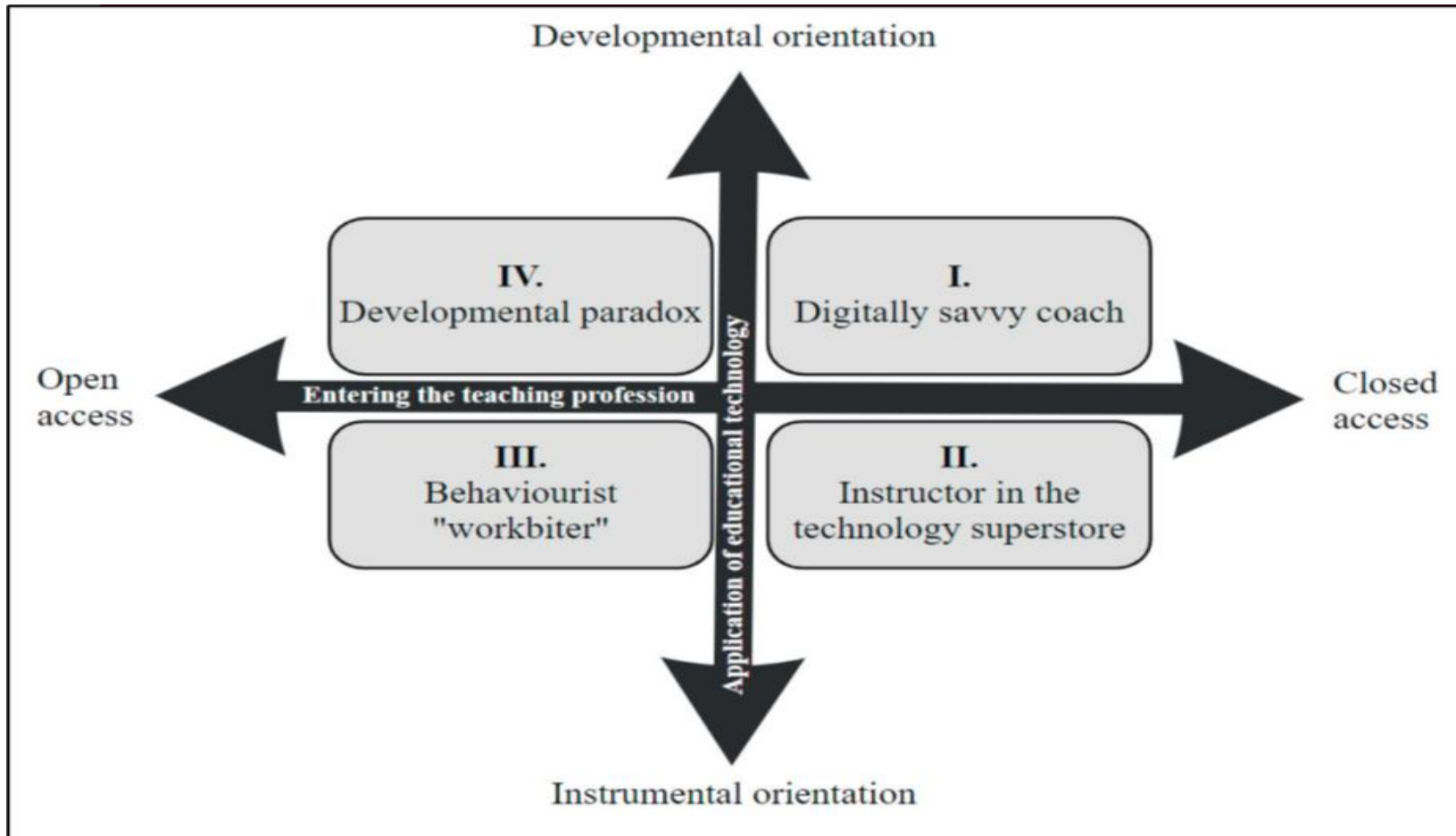
Key factors influencing the teaching profession in the future:

External driver of change: Changes in technology – the AI revolution – can be used either in a developmental or instrumental way. The first requires a broader notion of professionalism (see Hoyle, 1975) than the other.

Internal factors: Ways to enter the teaching profession: either closed (more selective) or open access.

We created 2x2 scenarios.

Scenarios for tomorrow's teaching profession (Loogma et al. 2020).



Scenarios I and IV require a broad professionalism, while II and III imply a narrower professionalism. But: closed access policy gives teachers usually a broader pedagogical knowledge than open access. In scenario IV educational software is developed by specialists with broader knowledge while teachers have superficial knowledge. Developmental orientation promotes a broad professionalism. Instrumental orientation is exam- and (labour) market-driven.

Conclusions

- The wish for increasing individualization and a more real-life oriented, and flexible organization of learning is visible.
- High hopes are placed on the role of AI in transforming education: teachers need an excellent knowledge and skills in using AI smartly.
- While AI can potentially help with the differentiation of tasks and materials, teachers need much more theoretical and evidence-based knowledge to justify their choices.
- It is evident that society's expectations correspond more to the broad sense of teacher professionalism.
- The constantly increasing demands on the teaching profession can lead to teacher burnout, unless more resources are provided.
- **The key question is how to attract teachers into the profession: are they motivated more by a broad or narrow concept of professionalism?**

Thank you for your attention

Maria Erss