



D.2.1. R&D Strategy and Action Plan of SES



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Executive summary

The R&D Strategy and Action Plan of SES defines the areas of the School of Educational Sciences (SES) Research and Development (R&D), outlines the main activities necessary to achieve the priorities in the field of R&D, and defines the indicators through which the School of Educational Sciences evaluates the success of R&D. The R&D strategy and action plan are based on the priorities of the Tallinn University Development Plan 2023-2027, the School of Educational Development Plan 2023-2027, and the Estonian Research, Development, Innovation and Entrepreneurship Strategy 2021-2035. The R&D strategy is to be complemented by annual Action Plans outlining specific actions with those responsible.

SCHOOL OF EDUCATIONAL SCIENCES RESEARCH AND DEVELOPMENT STRATEGY AND ACTION PLAN 2024-2027

School of Educational Sciences Research and Development Strategy and Action Plan defines Tallinn University (hereinafter TLU) School of Educational Sciences (hereinafter SES) research and development (hereinafter R&D) areas, highlights the main activities necessary for achieving the R&D priorities and determines the indicators through which to assess the success of R&D activities.

The R&D strategy and action plan are based on the priorities of the [Tallinn University Development Plan 2023-2027](#), the School of Educational Development Plan 2023-2027, and the Estonian Research, Development, Innovation and Entrepreneurship Strategy 2021-2035.

The R&D strategy is to be complemented by annual Action Plans, outlining specific actions with those responsible.

CURRENT SITUATION AND STRENGTHS OF TLU AND SES

Tallinn University

Tallinn University's mission is to support the sustainable development of Estonia through high-quality research, studies and creative work, public discussion, entrepreneurship, cooperation with the public and third sector, and promotion of academic partnership. TLU contributes to Estonia's ability to function as a smart, strong, and creative society that can cope with global tensions as well as with its own development needs. To this end, TLU carries out high-level basic and applied research, creative work, innovation, and knowledge transfer.

The university's academic activity centers around five focus fields:

- educational innovation
- digital and media culture
- cultural competencies
- healthy and sustainable lifestyle
- society and open governance.

In these focus fields, TLU aims to conduct high-level research that is integrated into the international research community and contributes to solving problems at different levels by developing an internationally competitive research community, undertaking research projects in international collaboration, and building the international reputation of the university.

Central to the academic career model of Tallinn University is the tenure track system with professor positions of stable job security. The main strategic objective of the establishment of the tenure track system is the guarantee of high academic capacity in the focus fields of the university. An important role of a tenure track system professor is to be the academic leader of the relevant study and research field.

Focus field: Educational innovation

One of the five focus fields of TLU is educational innovation. TLU is at the forefront of the evidence-based approach to educational innovation by developing research-based approaches to teaching and learning and applying high-level teaching and learning skills as a role model to influence the transformation of learning culture on a wider societal basis through educational innovation-driven interventions. TLU claims that it is essential to enable teachers to make evidence-based decisions on new ways of teaching and learning. TLU supports the development of self-directed learners and explores and develops flexible learning pathways. TLU reinforces inclusive education and advances differentiation in education according to students' individual needs. TLU contributes to the formation of a collaborative school culture in creating evidence-based innovations. SES is a leader of the focus field of education innovation.

School of Educational Sciences

SES is responsible for the academic sustainability in the field of education in both Tallinn University and Estonia in general. SES conducts studies on the three levels of higher education and organizes in-service learning, research, and development activities.

SES prepares a new generation of teachers and researchers for all levels of education from preschool to doctoral level. In teacher education, the aim of SES is to promote inclusive education and flexible learning pathways and help teachers design multicultural and multilingual school environments.

SES contributes to society through teacher education and educational research. In teaching and research, SES supports an interdisciplinary approach based on cooperation with both internal and external university partners. SES is following national and European educational strategic goals in terms of high-quality teacher training, flexible learning opportunities, and integration of non-formal and formal learning. SES strengthens the link between educational research and practice to implement educational innovations more effectively and more broadly. SES leads an evidence-based approach and critical monitoring of digital innovations in education, contributing to the rise of digital competencies of teachers and learners.

SES has two interdisciplinary centers:

- **TLU Centre of Excellence in Educational Innovation**

The centre aims to facilitate international cooperation and interdisciplinary collaboration for excellent research.

- **Centre for Innovation in Education**

The aim of the center is to develop, conduct, evaluate, and distribute innovative educational programs, and services.

In 2020, TLU opened an **EDUSPACE** research laboratory for technology-supported learning and teaching. The aim of the EDUSPACE is to support educational innovation and cooperation between Tallinn University, other educational institutions, and companies.

Starting from 2021, thematic clusters were created by TLU to promote innovation and knowledge transfer by private-public cooperation. One of the four thematic cooperation clusters **STEAM4EDU**, was formed and is led by SES since 2022.

- There are six tenure professors in SES:

Eve Eisenschmidt, Professor of Educational Leadership

Piret Soodla, Professor of Inclusive and Special Education

Inge Timoštuk, Professor of Primary Education

Kai Pata, Professor of Adult Education and Non-Formal Learning

Katrin Poom-Valickis, Professor of Teacher Education

Timo Tobias Ley, Professor Learning Analytics and Educational Innovation

There are five main study areas and research fields in SES, each led by a tenure professor of the respective field:

Educational leadership and innovation

Educational leadership and innovation studies innovation processes at schools and focuses on distributed leadership, teacher leadership, and collaborative processes at school. The research is based on understanding the processes of adoption of evidence-based innovations in schools. The focus is on didactical and often technology-enhanced scenarios for student-centered learning in secondary schools and using the knowledge appropriation model to study boundary crossing and co-creation in professional teacher education, and also integrate teachers into research.

Inclusive Education

The members of the study area are scientists and teachers with educational sciences and psychology backgrounds. Inclusive education's development activities are connected with designing and implementing the continuing training and services to support the development of learners with special needs. They aim to reach the teachers and special needs counselors in preschools and schools, coordinators for learners with special educational needs, training specialists, youth workers, action therapists, social pedagogues, parents, specialists in counseling centers, and specialists in hobby schools, local governments, and NGOs.

Early childhood and primary education

Early childhood and primary education create the foundation of general education in kindergarten and grades 1-6 of elementary school. The goal is an education system based on shared values, learner-oriented and inclusive, which offers learning paths that support the needs of society. The academic staff's teaching, research, and knowledge services are related to child development, learning, and teaching issues in sociocultural contexts.

Non-formal education and lifelong learning

Research topics and services are associated with non-formal education and lifelong learning, such as adult and vocational education and learning in various contexts, the learner's abilities and learning needs and identity, the vocational identity of adult educators, teachers' and educators' as well as youth work policy and management and youth workers in the context of social change and innovation the changing professionalism of vocational teachers, but also development of curricula in vocational education and learning in a working environment.

Teacher training and educational science

The teachers and researchers involved with teacher education focus in their R&D projects on early childhood education, primary education, and basic education at the learner's, class' and school level, on studying as a phenomenon from the viewpoint of educational psychology, and on implementing digital technologies in the study process. The emphasis is also on education and teaching in local and global sociocultural contexts.

MAIN CHALLENGES OF THE SCHOOL OF EDUCATIONAL SCIENCES RELATED TO RESEARCH AND DEVELOPMENT

Based on the current situation and resources, the main challenges that determine the quality of R&D are:

- Both academic and support employees have a heavy workload
- There is a constant need for academic succession
- There is high competitive pressure for international and interdisciplinary R&D projects
- The quality of research is mostly evaluated on the basis of publications

- It is necessary to develop a system that supports and motivates knowledge transfer
- More communication, networking, and collaboration between the focus fields and research fields is needed
- Fulfilling all the requirements and expectations that are imposed on tenure professors
- Rearranging the TLU Centre of Excellence in Educational Innovation for the period 2024-2026
- The number of foreign visiting professors and researchers is too low
- Making research administration capacity more efficient
- Supporting Ph.D. students to graduate during a nominal period of the study programme
- Research groups are not clearly defined or supported

STRATEGIC GOALS, OBJECTIVES & ACTIVITIES

The R&D goals of SES are based on the strategic goal in the field of research of Tallinn University and the School of Educational Sciences.

The strategic goal of TLU is high-level research and creative work for Estonia.

The goal of SES is to conduct high-level research activities and promote knowledge transfer to create flexible learning pathways and integrate formal and non-formal education.

School of Educational Sciences research and development goals:

1. Supporting the development of high-level research groups and cooperation of the existing research groups.
2. Conducting studies for the development of student-centered learning and flexible learning pathways integrating formal and non-formal education in different learning environments involving partners from both the public and private sectors.
3. Developing a system for research and development and knowledge transfer activities aimed at the private and public sectors.
4. Integrating educational research with practice by supporting evidence-based decisions about student-centered learning and flexible learning pathways.
5. Actively contributing to the accessibility and popularisation of research.
6. Publishing of the research results of the research groups contributes to the international influence of the researchers and educational research in the Estonian language.

Actions to achieve the goals

For the purpose of fulfilling the SES's main R&D objective and achieving the goals listed above, the SES focuses on the following activities, which are specified in the Action Plan:

- promoting interdisciplinary research and collaboration within SES, TLU, and externally
- strengthening the capacity of the SES research groups
- facilitating and encouraging knowledge transfer
- updating research communication principles and objectives
- providing opportunities for training for researchers and administrators
- involving external stakeholders into research process (schools, companies, ministries)
- providing incentives for research activities through internal funding instruments and other support mechanisms
- supporting and encouraging proposal writing
- making use of the TLU Centre of Excellence in Educational Innovation, Centre for Innovation in Education, EDUSPACE, and cluster STEAM4EDU competencies
- maintaining the motivation and recognition system of academic employees
- supporting Ph.D. students to participate in international research networks, communities, and projects
- establishing a systematic research project management process

The activities to be conducted in order to achieve the objectives and priorities established in this Strategy shall be specified and assessed as “achieved,” “partially achieved,” or “not achieved” in the action plan for every calendar year as part of the SES development plan. The implementation of the SES R&D action plan is managed by the head of research administration and the director of SES.

ACTION PLAN FOR THE SCHOOL OF EDUCATIONAL SCIENCES RESEARCH AND DEVELOPMENT STRATEGY 2024-2027

TLU goal: High-level research and creative work for Estonia			
SES goal: Conducting high-level research activities and promoting knowledge transfer to create flexible learning pathways and integrate formal and non-formal education			
SES R&D goal 1: Supporting the development of high-level research groups and cooperation of the existing research groups.			
Activities supporting to reach the goal	Assessment/evaluation criteria or indicator	Responsible	Deadline
We shall support the development and creation of research groups and map the research groups' strengths and weaknesses.	SES tenure professors have functioning research groups. Research groups have a leader and meet regularly. SES has successfully applied for external funding to develop new, strategically important research groups. Both master's and doctoral students are involved in the research groups.	Tenure professors, heads of research groups	2027
We shall strengthen research cooperation with both Estonian and foreign partners, and value the development of sustainable consortia and partner networks.	The number of funding applications submitted in cooperation with Estonian and foreign partners has increased (the applications have been developed with the same consortia or partners).	Heads of research groups	2027
We shall increase our capacity with research software, data management infrastructure and support services.	The capacity for obtaining and maintaining necessary research software and supporting research data infrastructure has improved. Employees are actively using LimeSurvey, Qualtrics, NVivo, SPSS, Grammarly, OwnCloud, and other software.	Head of research administration	2027
We shall support the performance of doctoral studies and the recruitment of post-doctoral fellows.	The number of defended doctoral theses and post-docs.	Head of doctoral studies, Head of Centre of Excellence	2027
We shall enhance the capacity of R&D project implementation.	Internal kick-off meetings take place at the beginning of each R&D project. The workload of researchers and administrators is appropriate.	Head of research administration, administrative head	2024

We shall reinforce TLU Centre of Excellence in Educational Innovation.	TLU Centre of Excellence in Educational Innovation initiates and implements interdisciplinary research and development projects, promotes cooperation between research groups, supports an interdisciplinary research network, organizes international research seminars and the mobility of international researchers.	Head of Centre of Excellence, director	2026
SES R&D goal 2: Conducting studies for the development of student-centered learning and flexible learning pathways integrating formal and non-formal education in different learning environments involving partners from both the public and private sectors.			
Activities supporting to reach the goal	Assessment/evaluation criteria or indicator	Responsible	Deadline
We shall carry out research projects for studying and developing student-centered learning and flexible learning pathways involving partners from the public and/or private sector.	The number of new research projects on student-centered learning and flexible learning pathways.	Heads of research groups	2027
We shall support the research capacity of research groups in researching flexible learning pathways by the involvement of international researchers as visiting professors or visiting researchers.	The number of international researchers as visiting professors or visiting researchers.	Heads of research groups, director	2027
We shall popularize of the research results of the research groups to contribute to the prominence of the institute's research activities and the marketing of the study programmes.	SES research seminars, the "Research" subpage on SES webpage is structured and regularly updated, covering the costs of OA publishing.	Marketing specialist, head of research administration	ongoing
SES R&D goal 3. Developing a system for research and development and knowledge transfer activities aimed at the private and public sectors.			
Activities supporting to reach the goal	Assessment/evaluation criteria or indicator	Responsible	Deadline
We shall develop and maintain <i>Research Dashboard</i>	In the SES shared Google folder, information on upcoming calls, funding programs, data management, research ethics, and other relevant information incl templates for R&D activities will be available and regularly updated.	Head of research administration	2024

We shall encourage cooperation with TEA, TAO, TUKO, EXU.	Regular meetings and information exchange.	Head of research administration	ongoing
We shall increase the capacity of project assistants and coordinators.	Project assistants and coordinators participate in the TLU network of project coordinators. Study visits to partner universities have taken place. Templates for project administration are available.	Head of research administration	2025
We shall support and encourage the writing large-scale R&D project proposals.	At least 3 large-scale R&D project applications are submitted every year, in at least one of which SES has the role of lead partner. Cluster STEAM4EDU and TLU Centre of Excellence in Education are the main promoters and supporters of large-scale proposal writing.	Head of cluster and head of Centre of Excellence	2026
We shall apply a motivation and recognition system for publishing high-level publications and implementing R&D projects.	Research performance payment is paid at the end of each calendar year.	Head of research administration	ongoing
We shall continuously communicate research information.	TEA and TAO members introduce funding programs at morning coffee. Information is clearly and regularly shared by the SES research list. Presenting project results at <i>morning coffee</i> .	Head of research administration	ongoing
We shall motivate and value employees for actively forming partnerships and carrying out knowledge transfer.	An employee's contribution to partnerships is reflected in their workload (starting from 2024).	Administrative head	2024
We shall facilitate knowledge transfer.	Under the EdTech Talents project various support mechanisms have been developed and implemented.	PI of EdTech Talents project, head of research administration	2027
We shall facilitate business cooperation and services offered to the public sector.	The volume of business cooperation and services offered to the public sector has increased. Principles for commercialization and intellectual property have been designed.	director, head of research administration	2027
SES R&D goal 4: Integrating educational research with practice by supporting evidence-based decisions about student-centered learning and flexible learning pathways.			
Activities supporting to reach the goal	Assessment/evaluation criteria or indicator	Responsible	Deadline

The shall integrate results of educational research with practical solutions through development programs aimed at educational institutions, intervention programs or other development activities.	Research-based practical solutions and development programs have been developed for educational institutions.	Academic employees, employees of Centre for Innovation in Education	2027
We shall regularly cooperate with the Ministry of Education and Research and Tartu University.	The academic employees are involved in planning the strategies of their field and implementing R&D projects.	Academic employees	2025
We shall conduct the educational innovation competition through which the educational innovation activities of educational institutions are highlighted, showing evidence-based practical solutions.	The educational innovation competition takes place each autumn.	Head of Centre for Innovation in Education	ongoing
SES R&D goal 5: Actively contributing to the accessibility and popularisation of research.			
Activities supporting to reach the goal	Assessment/evaluation criteria or indicator	Responsible	Deadline
We shall support the increase in the capacity of communicating research results.	Research communication is done by using various formats. Training for academic employees on research communication is conducted. Research groups and projects have their own web pages.	Heads of research groups, communication specialist	2027
We shall promote OA publishing.	The number of OA publications. The SES research fund will cover OA publishing costs.	Head of research administration	ongoing
We shall implement the SES communication plan 2023-2027	The descriptions of the study fields have been updated on the website. The "Research" subpage on SES webpage is structured and regularly updated. Researchers' profiles are updated on TLU website and ETIS. Research seminars are conducted.	Heads of study fields, communication specialist, head of research administration	2027
SES R&D goal 6: Publishing of the research results of the research groups contributes to the international influence of the researchers and educational research in the Estonian language			
Activities supporting to reach the goal	Assessment/evaluation criteria or indicator	Responsible	Deadline

We shall promote and support publishing in high-level international journals.	The number of publications in high-level international journals. The SES research fund will cover the editing costs of high-level publications.	Academic employees	ongoing
Research groups regularly publish their research results in the Estonian Journal of Educational Sciences.	The number of publications in the Estonian Journal of Educational Sciences	Heads of research groups	ongoing
We shall communicate research results to the wider audience.	Each year at least 6 research seminars are conducted. Research events, roundtables, and seminars are conducted for stakeholders, academic and non-academic audiences.	Academic employees, head of research administration	ongoing
We shall conduct writing camps for Ph.D. students and early-stage researchers.	Writing camps for Ph.D. students and early-stage researchers are conducted regularly.	Ph.D. supervisors	ongoing

Key performance indicators:

- the volume of research-based RDC funding
- the volume/proportion of commissioned RDC funding of all RDC funding
- the number of high-level research publications per academic employee
- three years' average number of research publications in Estonian
- the number of popular science publications
- the number of original school and higher education textbooks and popular science books
- the number of defended doctoral theses