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SWEDISH-ESTONIAN COOPERATION FUND:

Overview of the problems and possible intervention points related to youth in Estonia

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THE AIM OF THE WORK

The aim of the current work is **to identify relevant intervention points related to youth in Estonia**. The intervention may mean the need for further studies, nudges or other types of activities. This is **to help decision-makers to plan meaningful activities** that could have higher chances of impact or return on investment.

THE METHOD

In order to identify the most opportune intervention points for youth **a literature review** was conducted. In addition, it was **consulted with experts** of different policy fields in Praxis and outside to get their insights and opinion about the problems related to youth as well as the possible interventions. As a result, a list of findings can be found below. The **age limit** for "youth" or "young" **wasn't universally defined** when describing the problems and interventions – it may vary according to certain topic and can be decided when interventions will be designed in more detail. In case of all topics described below, **a potential of Swedish- Estonian cooperation** was considered and outlined where possible.

THE RESULTS

1. NAME OF THE TOPIC	REDUCING THE GENDER-BASED SEGREGATION IN STEM/ICT – RELATED CLASSES
DESCRIPTION OF THE PROBLEM *Background information, facts or statistics that indicate to the existence of the problem*	In Estonia, as in the whole EU, there are sharp gender-based differences in peoples' career choices. The share of women in STEM-related occupations has been low over the past 10 years and is still reluctant to grow. For example, based on 2013-2014 labour market data, there were only 20% of people engaged with STEM related professions in Estonia who are women and the share remains as low as 14% across the EU. This shows that efforts are needed across all EU countries to attract more women to STEM occupations. The importance of the issue raises from the fact that skills related to ICT and technology have key importance in the future labour market[1]. If women are systematically underrepresented in certain sector(s), then it reduces career choices for women entering the labour market[2], maintains gender-based pay gap[3] and subsequent social security concerns. Furthermore, even though there is a big dominance of men (only less than third of the ICT specialists are women), there is a lack of 7000 ICT specialists in Estonia. The roots of that problem, i.e. segregation in Estonian labour market, lead to early childhood and educational experience, when children are introduced to

[1] See also European Institute for Gender Equality (EIGE) (2018). Study and Work in the EU: Set Apart by Gender. Review of the Implementation of the Beijing Platform for Action in the EU Member States. Saved: Publications Office of the European Union website: https://eige.europa.eu/rdc/eigepublications/study-and-work-eu-set-apart-gender-report

[2] Sparreboom, T. (2014). Gender equality, part-time work and segregation in Europe. International Labour Review, 153(2), 245–268. https://doi.org/10.1111/j.1564-913X.2014.00203.x

[3] England, P. (2005). Gender Inequality in Labor Markets: The Role of Motherhood and Segregation. Social Politics: International Studies in Gender, State & Society, 12(2), 264–288. https://doi.org/10.1093/sp/jxi014

	different subjects and hobbies. Although, the interest towards certain topic (and skills related to them) is being developed during the whole educational experience, it has been demonstrated that after the age 15, girls start to lose interest towards STEM subjects[4]. The same has been noticed also in Estonia - the interest towards science-related extracurricular activities is biggest in the age 7-11, when there are the most participants in such classes[5]. However, a horizontal segregation can be seen already then: the share of the girls in the area of science and technology is only a fifth (24% among preschool children and 21% among children between 7- 11 years). At the same time, majority of girls is engaged in music and art classes (respectively 74% in younger age group and 72% in first classes).[6] The same is evident in the older age group - at the age of 15 there is 29% of male students and 20% of female students who wish to be engaged with STEM subjects, including 15% of male students and only 1% female students who wish to be involved with ICT[7]. In sum, gender-based stereotypes prevent women in taking up a career in STEM/ICT sector today in Estonia. The reason is related to children's (and their parents') choices when they choose their extracurricular activities in the beginning of their educational experience. Currently, there is a lack of tested interventions to improve girls' uptake of STEM/ICT education. The partnership with Swedish gender equality experts would provide mutual learning opportunities, particularly considering the high relevance of gender equality in Sweden. Partnership with high level tech companies in Estonia and Sweden would support the intervention providing real-life examples of a career in technology sector/ICT and would support in finding female role models for girls.
DESCRIPTION AND RELEVANCE OF THE INTERVENTION	As was discussed, people's decision on whether to go to the vocational school or to university and which discipline to choose depends on their previous educational experience. However, there's a tendency today in Estonia to choose extracurricular activities according to traditional gender stereotypes which means that women end up in certain jobs and sectors (such as health, social work, education) and men dominate in others (i.e. in STEM jobs). The existence of gender stereotypes is important factor that influences girls' career choices. Besides adults' direct influence, it directs girls to prefer hobbies and activities that are considered appropriate for girls[8].

[4] Microsoft (2017). Closing the STEM Gap. Why STEM classes and careers still lack girls and what we can do about it.

[5] Haridus- ja Teadusministeerium (2019). Huviharidus. Haridussilm [Andmebaas]. Salvestatud 15. juuli 2019, https://www.haridussilm.ee/?leht=huvi_0

[6] *Ibid.*

[7] Soobard, R. (2016). 15-aastaste õpilaste karjäärieelistused ja suhtumine loodusteadustesse. G. Tire (Toim), PISA 2015 Eesti tulemused. Eesti 15-aastaste õpilaste teadmised ja oskused loodusteadustes, funktsionaalses lugemises ja matemaatikas (lk 54–66). Salvestatud https://www.hm.ee/sites/default/files/pisa_2015_final_veebivaatamiseks_0.pdf.

[8] Allegrini, A., Pellegrini, G., & Segafredo, C. (2015). Italian female and male students' choices: STEM studies and motivations.

	In order to create an equal position for boys and girls in developing their ICT/digital skills, it is important to reduce the gender-based stereotypical attitude during the time when they are choosing their extracurricular activities. One possibility is to alter the context in which children and/or their parents are making the decision whether to engage with STEM/ICT- related subjects. We propose to create evidence-based nudges that would increase the number of girls who participate in STEM/ICT-related extracurricular activities. The essence of nudging is to find out what are the motives behind people's decisions and based on that modify the environment in which behaviours are formed. This has been shown to lead to a change in behaviour where applying direct monetary rewards or any sanctions is unnecessary. Because people are complex and act in complex environment, it is important to evaluate the effectiveness of the intervention. This is often done by running a randomised controlled trial (RCT). The results give an idea as to whether to modify the intervention if it did not produce the desired effect (size) or whether the intervention seems to work and could be scaled up. As career choices are shaped already in early ages, especially the interest towards STEM, it is reasonable to focus on age groups where the interest is still emerging, i.e. in primary school (in age 7-11). However, depending on the exact built up of the nudge and other conditions, the exact age group may vary.

2. NAME OF THE TOPIC	**TACKLING THE ISSUE OF OVERWEIGHT AMONG CHILDREN IN ESTONIA**
DESCRIPTION OF THE PROBLEM *Background information, facts or statistics that indicate to the existence of the problem*	Whereas there are positive trends related to health indicators of children and youth in Estonia (i.e. declining trends in alcohol and tobacco consumption), some aspects are still problematic. Studies reveal that a large share of children in Estonia is overweight – 21% of boys and 14% of girls. Children who are overweight eat breakfast less frequently, they are less physically active and spend more time at screens. Since physical activity is an important factor contributing to overweight, it is worrisome that there are only 16% of children in the age 11-15 (17% of boys and 14% of girls) who move at least the recommended minimum 60 min per day. Even though there have been initiatives to increase the number of people who exercise, the trend among young people has remained the same or even declined.[9] Also, one of the aims set in the National Health Plan 2009–2020 was to decrease the share of overweight students to 6% by 2020. The latest data suggests that the aim will not be met. Already in 2016, The National Audit Office in Estonia concluded that current health care system in Estonia does not guarantee effective prevention, timely discovery, systemic monitoring and consistent treatment of children's health problems. One of the main causes of this situation is poor coordination between different health care levels and institutions (such as healthcare staff in schools, GPs and other doctors, child protection specialists etc).[10] They suggest the share of overweight children is one consequence of such silo working.

[9] Oja L, Piksööt J, Aasvee K, jt. Eesti kooliõpilaste tervisekäitumine. 2017/2018. õppeaasta uuringu raport. Tallinn: Tervise Arengu Instituut; 2019

[10] Riigi tegevus laste tervise hoidmisel ja ravimisel (2016). Riigikontroll.

	Besides the negative effect on children's individual health and wellbeing, obesity also has an impact to the whole society – fewer people able to work and more people needing more complex health-care services poses considerable strain on the economy. Additionally, there are increasing numbers of young people unsuitable for the compulsory military service which in turn affects state's preparedness for national security threats.
DESCRIPTION AND THE RELEVANCE OF THE INTERVENTION	Overweight is one of the most important risk factors that may cause serious chronical conditions, such as diabetes and cardio-vascular diseases. Furthermore, being overweight in childhood is likely to mean the person is also overweight in adulthood. National Institution for Health Development and other institutions have undertaken many actions that have targeted the problem. For example, large-scale social media campaigns have been carried out, information and guidelines have been published to help families, schools and people's themselves to make healthier choices.[11] There is, however, little understanding of the effectiveness of different interventions being used or undertaken. The interventions have been carried out by different organisations and there is little centralised information on the evidence-base of these programmes, making it hard to guestimate their effectiveness. We propose to map all relevant interventions implemented in Estonia together with any available data on their effectiveness and their evidence- base. This would first help to identify any groups who have not been reached by the interventions and can help to pinpoint to any uncovered approaches to reducing overweight in Estonia's youth. Based on the above evidence we propose to develop a behaviourally informed intervention to improve young people's health behaviour. Nudging, a change in the environment in which decisions related to health behaviour are made, has been successfully used in improving young people's physical activity[12] and healthier nutritional choices at lunchtime[13,14,15]. To our knowledge, however, this approach has thus far not been implemented in Estonia. We therefore propose to trial one behaviourally informed intervention that has been designed mindful of the Estonian context. Possible aims for such an intervention could be (a) improving the quality of food snacks, (b) increasing the physical activity of young people, (c) interrupting young people's sedentary activities. To select the focus and design the intervention:

[11] See also https://toitumine.ee/artiklid/laste-ulekaal-ja-rasvumine
[12] Behavioural Insights Team (2010). Applying Behavioural Insights to Health. London, UK: Cabinet Office
[13] *Ibid.*
[14] Ensaff, Hannah; Homer, Matt; Sahota, Pinki; Braybrook, Debbie; Coan, Susan; McLeod, Helen (2015). Food Choice Architecture: An Intervention in a Secondary School and its Impact on Students' Plant-based Food Choices. Nutrients 7, no. 6: 4426-4437.
[15] D Ward, J Jackson, D Giles, A Bunten, R Howell-Jones, J Burgess-Allen (2017). Using behavioural insights to improve the healthiness of children's packed lunches. European Journal of Public Health, Volume 27, Issue suppl_3.

	a. A literature search for possible cognitive, behavioural and social variables that are likely to contribute to overweight will be done. Also, possible settings for the intervention will be mapped and an overview of the effect sizes of the interventions published will be compiled. b. The factors behind Estonian young people's current behaviour and what could motivate them to change their habits will be researched (this will be done by interviewing young people, their parents and professionals). c. Possible context in which to implement the intervention will be investigated (i.e., should we target eating or physical exercise habits, should the intervention take place at home (what kind of food parents cook) or at school (what is offered in school canteen, how physical exercise related extracurricular activities are organised). d. Information gained in stages a…c will be merged, the new intervention will be designed and implemented. In a final stage the effectiveness of the intervention should be measured, preferably by running a randomised controlled trial (RCT). This would give insights as to whether the intervention has the potential to work and whether it could be up- scaled.

3. NAME OF THE TOPIC	**DECREASING THE SHARE OF YOUNG PEOPLE NEITHER IN EMPLOYMENT NOR IN EDUCATION OR TRAINING IN ESTONIA**
DESCRIPTION OF THE PROBLEM *Background information, facts or statistics that indicate to the existence of the problem*	The share of youth aged 15–29 neither in employment nor in education or training (the so-called NEET-youth) in Estonia was 12% in 2018[16]. It is lower than the in the EU in average (13%), but while the EU average has consistently decreased, Estonian indicator keeps having ups and downs – for example, since 2017, when it was 11%, it has started to increase again. Both the Estonian as well as the EU indicators are higher than the target set by the EU for the year 2020, which is less than 10%[17]. Being a NEET-person is, first and foremost, problem for the young people themselves, but high share of NEET-youth is a problem for the society as well. For the young people it poses several potentially negative effects, e.g. low household incomes and the higher risk of poverty, poor health and well-being due to the cut-downs on essential expenditure on food, poor housing and health care, lower level of life-satisfaction, negative implications on future employment prospects and earnings, and isolation and disengagement from society which can eventually lead to crime[18]. For the society a high share of NEET-youth can bring along a) risen costs for the health- and social care, b) a need to tackle the crime and the consequences created by decreased trust towards political institutions among the NEET-youth, and c) lost economic potential[19]. According to Eurofound's calculations, because of the NEET-youth not participating in the

[16] Eurostat (2020). Young people neither in employment nor in education and training by sex, age and educational attainment level (NEET rates).
[17] Võrdsed võimalused (2020). NEET-noored. https://vordsedvoimalused2020.ee/neet-noored/
[18] OECD (2016). The NEET challenge: What can be done for jobless and disengaged youth? In Society at a Glance 2016, OECD Social Indicators.
[19] OECD (2016). The NEET challenge: What can be done for jobless and disengaged youth? In Society at a Glance 2016, OECD Social Indicators.

	labour market, Estonian economy loses 238 million euros annually, which makes approximately 1,5% of Estonian GDP[20] (in addition, the mismatch of skills and the lack of highly qualified workforce have been brought out by the European Commission[21] as the main factors that hinder Estonia's economic development). Thus, **activating NEET-youth is relevant and necessary measure for the Estonian society and economy**. It is also known that approximately two-thirds of all NEET-persons in Estonia are inactive, i.e. not even looking for a work[22]. According to OECD data[23] the most likely groups of becoming NEET are the most vulnerable societal groups, e.g. those with poor education, ill health, social problems, and/ or migrant background. OECD has found also that young people with not more than lower-secondary education are three times more likely to become NEET compared to those with university-level degree[24]. Educational characteristic plays role in Estonia as well – while there's only 4% of the young people with higher education who belong to NEET-youth, there are more of them who have only secondary education (13%) and basic education (9%)[25]. A survey that focused on the attitudes of the NEET's themselves pointed out the **unfinished education and living in a rural area** as two main reasons of being a NEET[26]. Other reasons were criminal background and family-related reasons (e.g. taking care of a child or a relative). Trends regarding educational attainment in Estonia provide explanations to the share of Estonian NEET-youth. The share of people with at least secondary education in Estonia is below the EU average and has been decreasing – when in EU the share of people with at least secondary education is higher among younger age groups, then in Estonia it is higher among older people[27]. Also, the share of early school leavers (i.e. people aged 18–24 whose highest education level attained is primary education) in Estonia is higher than in the EU in average (in 2019 it was 11%, while the EU average was 10%)[28] and while this share has decreased, it hasn't been a continuous trend.

[20] Kasearu, K. ja Trumm, A. (2013). NEET – „Noored, kellega keegi ei arvesta ja kes kuskil ei käi"? *Poliitikaülevaade 5/2013.*
[21] European Commission (2019). Country Report Estonia 2019. https://ec.europa.eu/info/sites/info/files/file_import/2019-european-semester-country-report-estonia_en.pdf.
[22] OECD (2019). Society at a Glance 2019: OECD Social Indicators, OECD Publishing, Paris. *https:doi.org/10.1787/soc_glance-2019-en.*
[23] OECD (2016). The NEET challenge: What can be done for jobless and disengaged youth? *In Society at a Glance 2016, OECD Social Indicators.*
[24] OECD (2016). The NEET challenge: What can be done for jobless and disengaged youth? *In Society at a Glance 2016, OECD Social Indicators.*
[25] Himma, M. (2019). Noored kes ei õpi ega tööta sõltuvad Eesti regionaalpoliitikast. https://novaator.err.ee/954100/noored-kes-ei-opi-ega-toota-soltuvad-eesti-regionaalpoliitikast.
[26] Himma, M. (2019). Noored kes ei õpi ega tööta sõltuvad Eesti regionaalpoliitikast. https://novaator.err.ee/954100/noored-kes-ei-opi-ega-toota-soltuvad-eesti-regionaalpoliitikast
[27] Serbak, K. (2018). Mis mõjutab keskhariduseni jõudmist Eestis? Analüüs EHISe andmetel. Tartu: Haridus- ja Teadusministeerium.
[28] Eurostat (2020). Young people neither in employment nor in education and training by sex, age and educational attainment level (NEET rates).

	Additionally, unlike in some countries, participating in the vocational education is not popular in Estonia[29]. This is surprising, since employability of recent vocational education graduates in Estonia is above the EU average (86% compared to 77% in the EU in 2017) indicating a high demand for specialists[30]. In addition, the share of people with tertiary education (i.e. university degree) in Estonia is below the OECD average among the younger people (44% in Estonia and 45% in OECD in average among the people aged 25–34)[31]. This declining trend can be illustrated by the fact that only 51% of the young people start their studies in university right after the graduation of secondary school[32]. A decade ago, the share was 67%.
DESCRIPTION AND THE RELEVANCE OF THE INTERVENTION	High share of NEET-youth in a society is a complex problem, which means that there are no concrete and easy ways to solve it. OECD[33] has brought out **three most important interventions to decrease the share of NEET-youth**: (1) to fight early school leaving (ESL), (2) to increase the share of these young people who are participating in a good quality vocational education and training, and (3) to implement well- targeted programmes to re-engage NEET-young. All these measures are appropriate also for Estonia (especially the first two of them, when considering the low and/ or decreasing participation rates in Estonian secondary- as well as in vocational- and tertiary education). In case of Estonia, however, it is important to consider also **the regional differences**. In Estonia several measures there have been implemented with the aim to decrease early-school leavers, to improve the attractiveness of vocational education and to implement targeted programmes. For instance, the opportunities for the students have been expanded to get career counselling, there have been carried out campaigns to popularize VET and to implement several interventions in the context of national strategy "The Youth Guarantee". It can be seen however, that since the share of NEET-youth in Estonia has not decreased, these measures have not been enough. Several additional measures have been proposed to tackle the problem more effectively, e.g. to improve the access to career counselling, to make the studies more flexible and individualized, to educate teachers so that they would have enough capabilities to notice and resolve the problems that could lead to ESL, to improve students' access to extra-curricular activities, to provide individual support to the students with study problems, to improve the cooperation between the students' parents

[29] Serbak, K. (2018). Mis mõjutab keskhariduseni jõudmist Eestis? Analüüs EHISe andmetel. Tartu: Haridus- ja Teadusministeerium.
[30] European Commission (2019). Country Report Estonia 2019. https://ec.europa.eu/info/sites/info/files/file_import/2019-european-semester-country-report-estonia_en.pdf.
[31] OECD (2020), Population with tertiary education (indicator). doi: 10.1787/0b8f90e9-en (Accessed on 20 February 2020)
[32] HaridusSilm (2020).
[33] OECD (2016). The NEET challenge: What can be done for jobless and disengaged youth? *In Society at a Glance 2016, OECD Social Indicators.*

	and school, and to develop a system that helps to predict potential early school leavers[34]. We propose to alleviate the problem of NEETs in Estonia by designing a specific intervention in cooperation with Swedish organizations, e.g. our partner Fryshuset. Cooperation with a Swedish partner would be relevant since Sweden is a country where the share of NEET-youth is one of the lowest in EU (7%[35]) and has been constantly decreasing since 2012. Thus, we propose that in cooperation with Estonian and Swedish experts: (1) the essence of the NEET problem in Estonia (e.g. who are the NEET-youth regarding who there is so far no information, what measures have helped the NEET-youth in Estonia the most, etc.) should be analysed further and the weak points in our current intervention system should be investigated, (2) it should be studied what Sweden has done to effectively tackle the NEET-problem, and (3) an intervention for Estonian context should be designed, possibly inspired by the Swedish experience. We assume that the specific focus in Estonia should be on school level, i.e. to empower and guide teachers and other school staff to notice and help to resolve students' study-related and other problems that could otherwise potentially lead to early school leaving as one major factor contributing to NEET-problem.

4. NAME OF THE TOPIC	**DECREASING MOTHER-TONGUE-BASED EDUCATIONAL STRATIFICATION IN ESTONIA**
DESCRIPTION OF THE PROBLEM *Background information, facts or statistics that indicate to the existence of the problem*	In Estonian general education there is a noteworthy, though decreasing, share of students who study in Russian language: two decades ago, it was approximately 30% and in 2016 around 15%[36]. According to PISA studies the educational outcomes of students who study in Russian language have continuously been lower than of those who study in Estonian language. For example, in both reading as well as in natural science, the difference is 42 PISA points that equals one school year, i.e. in these subjects Russian speaking students lag a year behind compared to Estonian speaking students. In addition, PISA studies have shown that in Russian speaking schools there is less of top-performers and more low-performers than in Estonian- language- based schools[37;38].

[34] Kallip, K. ja Heidmets, M. (2017). Varakul haridussüsteemist lahkumine: trendid, mõjurid ja meetmed Eestis. Eesti Haridusteaduste Ajakiri, 5(2), 155–182. doi: https://doi.org/10.12697/eha.2017.5.2.07

[35] Eurostat (2020). Young people neither in employment nor in education and training by sex, age and educational attainment level (NEET rates).

[36] Põder, K.; Lauri, T.; Rahnu, L. (2017). Eesti koolisüsteemi väljakutsed: õpiedukuse erinevus erikeelsetes koolides ja sisserändajate koolivalikud.

[37] Tire, G.; Lepmann, T.; Jukk, H.; Puksand, H.; Henno, I.; Lindemann, K.; Kitsing, M.; Täht, K.; Lorenz, B. (2013). PISA 2012 Eesti tulemused: Eesti 15-aastaste õpilaste teadmised ja oskused matemaatikas, funktsionaalses lugemises ja loodusteadustes. SA Innove, Haridus- ja Teadusministeerium

[38] Kitsing, M. (2012). Kõrgemate ja madalamate koolide võrdlus. Kogumikus Eesti PISA 2009 kontekstis: tugevused ja probleemid. Programmi Eduko uuringutoetuse kasutamise lepingu aruanne. Eduko, Tartu, lk 46–61.

	Mother-tongue-based educational stratification exists in higher education as well. In 2005–2016 there were 19% of the basic school students who studied in Russian language. At the same time in higher education the share of students who had studied in Russian-language-based basic school, was much smaller (11%)[39]. Also, large part of non-Estonians (41%) believe that higher education is not equally accessible for the non-Estonians compared to the Estonians[40]. Mother-tongue-based educational stratification is a problem that creates barriers for the future opportunities of the Russian speaking young people in education, labour market as well as in society[41]. In Estonia **non-Estonians have lower employment rate, higher unemployment rate and lower salaries**[42]. In addition, they estimate their job security lower than Estonians and among the non-Estonians the share of those who have achieved higher positions in labour market is lower than among Estonians[43]. Täht *et al.* (2018)[44] have analysed the reasons behind different outcomes in natural sciences of Estonian- and Russian speaking schools and found two main reasons: (1) **students' socio-economic background** (Russian speaking students' socio-economic status is generally lower than that of the Estonian speaking students) and (2) **attitudes and beliefs** (in Estonian speaking schools compared to the Russian speaking schools students find more joy in studying natural sciences and they have higher science-based epistemic beliefs, e.g. they believe that knowledges should base on the evidence and evidence can be collected (i.e with the help of experiments), but also, that scientific knowledge can change in time). Tire *et al.* (2019)[45] have analysed the factors that impact functional reading and found the following ones: (1) **the feeling of connectedness with one's school** – the higher the feeling the better the outcomes, (2) **the discipline in a class** – the stronger the discipline the better the outcomes, (3) **the enthusiasm of teachers** – greater enthusiasm is associated with better outcomes, (4) **absence from school, being late to school and being a victim of bullying** – the more experiences with those practices the worse are the outcomes. In Russian speaking schools the

[39] Haaristo, H.-S.; Kirss, L.; Leppik, C.; Mägi, E.; Haugas, S. (2017). Eesti üliõpilaste eluolu 2016: rahvusvahelise üliõpilaste uuringu EUROSTUDENT VI Eesti analüüs. Tallinn: Poliitikauuringute Keskus Praxis.
[40] Kaldur, K.; Vetik, R.; Kirss, L.; Kivistik, K.; Seppel, K.; Kallas, K.; Masso, M.; Anniste, K. (2017). Eesti ühiskonna integratsiooni monitooring 2017. Balti Uuringute Instituut, SA Poliitikauuringute Keskus Praxis.
[41] Lindemann, K. (2013). Structural Integration of Young Russian-speakers in Postsoviet Contexts: Educational Attainment and Transition to the Labour Market. Tallinna Ülikool Sotsiaalteaduste dissertatsioonid.
[42] Kaldur, K.; Vetik, R.; Kirss, L.; Kivistik, K.; Seppel, K.; Kallas, K.; Masso, M.; Anniste, K. (2017). Eesti ühiskonna integratsiooni monitooring 2017. Balti Uuringute Instituut, SA Poliitikauuringute Keskus Praxis
[43] Kaldur, K.; Vetik, R.; Kirss, L.; Kivistik, K.; Seppel, K.; Kallas, K.; Masso, M.; Anniste, K. (2017). Eesti ühiskonna integratsiooni monitooring 2017. Balti Uuringute Instituut, SA Poliitikauuringute Keskus Praxis.
[44] Täht, K.; Konstabel, K.; Kask, K.; Rannikmäe, M.; Rozgonjuk, D.; Schultz, A.; Soobard, R.; Tõugu, P.; Vaino, K. (2018). Eesti ja vene õppekeelega koolide 15-aastaste õpilaste teadmiste ja oskuste erinevuste põhjuste analüüs. Tartu Ülikool
[45] Tire, G.; Puksand, H.; Lepmann, T.; Henno, I.; Lindemann, K.; Täht, K.; Lorenz, B.; Silm, G. (2019). PISA 2018 Eesti tulemused. Tallinn.

	students feeling of connectedness is lower than it is in Estonian speaking schools, the class discipline in Russian speaking schools is stronger (which does not, thus, explain the lower results in Russian speaking schools), and in Russian speaking schools teachers' enthusiasm is lower, the students miss from school, are late to school and experience bullying more often than the students in Estonian speaking schools[46].
DESCRIPTION AND RELEVANCE OF THE INTERVENTION	Based on the reasons outlined by Täht *et al.* (2018)[47] and Tire *et al.* (2019)[48] we propose to implement either one or both of the following interventions: • To design and implement a teaching method (e.g. a specific programme) in Russian – language-based schools to develop and enforce a science-based epistemic belief among the students. Although the national teachers' training system also focuses on that, it is evident that it is not enough. • To design and implement in Russian speaking schools a programme that helps to strengthen students' feeling of connectedness with their class and/ or school. Both interventions could be designed in cooperation with some Swedish organizations, e.g. with Stockholm University or with Fryshuset. The idea would be to find out what solutions have worked in Sweden. After that, the solutions should be adapted to Estonian context. In the beginning, the intervention(s) should be piloted in one or in a small number of Russian-language-based schools. If intervention(s) prove effective, the approach can be scaled up (with the support of the Ministry of Education and Research).

5. NAME OF THE TOPIC	**COPING WITH THE DIGITAL ERA: SKILLS FOR THE FUTURE**
DESCRIPTION OF THE PROBLEM *Background information, facts or statistics that indicate to the existence of the problem*	Today's young people are living in a digital age where Internet use has become an integral part of their daily lives. In Estonia, 97% of 9-17-year olds use the Internet on at least one device every day, while 29% use the Internet for schoolwork every day and 38% at least once a week[49]. As a result of technological progress, the profile of skills necessary to cope with the digital age has changed. In addition to learning how to use technology, every young person needs also knowledge about cyber hygiene and security, how to respect copyrights, and what to do in case of cyberbullying. It has been a major challenge for the education system and youth work to equip young people with these new skills and thus support their coping in today's digital society.

[46] Tire, G.; Puksand, H.; Lepmann, T.; Henno, I.; Lindemann, K.; Täht, K.; Lorenz, B.; Silm, G. (2019). PISA 2018 Eesti tulemused. Tallinn.

[47] Täht, K.; Konstabel, K.; Kask, K.; Rannikmäe, M.; Rozgonjuk, D.; Schultz, A.; Soobard, R.; Tõugu, P.; Vaino, K. (2018). Eesti ja vene õppekeelega koolide 15-aastaste õpilaste teadmiste ja oskuste erinevuste põhjuste analüüs. Tartu Ülikool

[48] Tire, G.; Puksand, H.; Lepmann, T.; Henno, I.; Lindemann, K.; Täht, K.; Lorenz, B.; Silm, G. (2019). PISA 2018 Eesti tulemused. Tallinn.

[49] Sukk, M., Soo, K., (2018). EU Kids Online'i Eesti 2018. aasta uuringu esialgsed tulemused. Kalmus, V., Kurvits, R., Siibak, A. (toim). Tartu: Tartu Ülikool, ühiskonnateaduste instituut

	The development of digital focus in education has been one of the strategic goals of the Estonian education system. As shown in the recent interim evaluation of the Lifelong Learning Strategy 2020, significant progress has been made in recent years in increasing the availability of digital learning resources and improving school infrastructure[50]. In the European context, the overall situation of Estonian schools is very good. There are more highly digitally equipped schools in Estonia at all ISCED levels than in many other EU countries and Estonian schools have very good internet access compared to the EU average[51]. Despite the progress achieved in recent years, students still perceive shortcomings in the use of digital devices and the teaching of digital skills. Teachers' skills are often insufficient to integrate digital culture into teaching. Between 30% and 40% of students are dissatisfied with how much digital tools are used for learning. More than half (57%) of grade 11 students and 48% of grade 8 students are dissatisfied with the development of digital skills at school[52]. It's not known to what extent girls' and boys' expectations of using digital solutions in schools differ, but other studies have shown that throughout the EU, a similar share of young women and men feel sufficiently skilled to use digital technologies in their daily lives, yet boys feel more confident about their digital skills. For example, 73% of boys (compared to 63% of girls) aged 15-16 feel comfortable using digital devices that they are less familiar with[53]. Standard-determining tests in digital literacy for students in grades 9 and 12 and in 3rd year students in VET institutions that assess students' knowledge in five areas of competence: information management, communication, content creation, security, and problem solving have shown that the most difficult area for all groups appears to be the content creation and the tasks that assess students' knowledge of 3D-modeling and programming[54]. Although teachers themselves estimate that their digital skills have improved in the last 3 years thanks to in-service training, less than half of teachers rate their digital skills as good[55].

[50] Haaristo, H.-S., Räis, M. L., Kasemets, L., Kallaste, E., Aland, L., Anniste, K., Anspal, S., Haugas, S., Jaanits, J., Järve, J., Koppel, K., Lang, A., Lauri, T., Michelson, A., Murasov, M., Mägi, E., Piirimäe, K., Põder, K., Rajaveer, K., Sandre, S.-L., Sõmer, M., (2019). *Elukestva õppe strateegia vahehindamine. (*Interim evaluation of Lifelong learning strategy*).* Tallinn: Poliitikauuringute Keskus Praxis, Rakendusuuringute Keskus CentAR

[51] European Commission, DG CNECT, (2019). 2nd Survey of Schools: ICT in Education Estonia Country Report.

[52] Haridus- ja Teadusministeerium, (2019). Haridus- ja Teadusministeeriumi valdkondade 2018. a arengukavade täitmise analüüs

[53] European Institute for Gender Equality (2019). Gender equality and youth: opportunities and risks of digitalisation.

[54] Sihtasutus Innove, (2019). Digipädevuste tasemetöö 2019. Tulemuste analüüs.

[55] Haaristo, H.-S., Räis, M. L., Kasemets, L., Kallaste, E., Aland, L., Anniste, K., Anspal, S., Haugas, S., Jaanits, J., Järve, J., Koppel, K., Lang, A., Lauri, T., Michelson, A., Murasov, M., Mägi, E., Piirimäe, K., Põder, K., Rajaveer, K., Sandre, S.-L., Sõmer, M., (2019). *Elukestva õppe strateegia vahehindamine. (*Interim evaluation of Lifelong learning strategy*).* Tallinn: Poliitikauuringute Keskus Praxis, Rakendusuuringute Keskus CentAR.

	More sophisticated ICT education and advanced ICT skills training is not compulsory by the national curriculum in Estonia, but more than a third (36%) of students are exposed to it as it is present in most (90%) schools in the form of subject, elective course or hobby class[56]. The lack of ICT teachers is a major obstacle to expanding the learning of more sophisticated ICT skills.
DESCRIPTION AND THE RELEVANCE OF THE INTERVENTION	It is necessary to find out what is behind youth discontent with the teaching of digital or ICT skills, especially at the level of upper secondary education. What are the skills that are currently not being adequately taught in schools and what are the young people's suggestions for using digital solutions in teaching, given their overall good competence of using digital devices? Young people studying in different schools may have very different experiences with how digital tools are used in teaching, what digital or ICT skills and how are taught at school. Given the lack of educational technology support for teachers and computer science teachers in Estonian schools, many students may not be aware of the possibilities of using modern digital tools at school, nor can ask it from their teachers. In cooperation with student councils and youth organizations, the expectations and wishes of young people to use digital technology in teaching should be explored. To this end, focus groups and workshops in different regions should be conducted to enable as many young people as possible to have their say on the subject and to share their experiences so far. Based on the focus groups and workshops an analytical overview will be compiled of young people's actual experiences of using digital learning solutions and smart devices in study process. Also, recommendations to schools and policymakers will be developed for improving teaching technology-related skills and using contemporary technological solutions in teaching. In addition, it would be useful to learn from the Swedish experience of how digital learning solutions have been integrated into teaching, what has been done to develop teachers' digital competences and what innovative solutions have recently been introduced in schools.
6. NAME OF THE TOPIC	**COPING WITH THE DIGITAL ERA: MANAGING HEALTH RISKS**
DESCRIPTION OF THE PROBLEM *Background information, facts or statistics that indicate to the existence of the problem*	In the modern world, where almost all children have access to the Internet and the use of digital devices has become part of everyday life, the harmful effects of the overuse of digital devices must not be overlooked. Overuse of digital devices and the internet can become a serious problem in daily lives of children and youngsters as it has been associated with problems like insufficient sleep time, lack of physical activities, overweight, eye strain, difficulties in oral communication and increased mental health problems. According to recent survey, nearly half of young people in Estonia have tried to spend less time on the Internet, but they have not succeeded to do so [57].

[56] Haridus- ja Teadusministeerium, (2019). Haridus- ja Teadusministeeriumi valdkondade 2018. a arengukavade täitmise analüüs

[57] Sukk, M., Soo, K., (2018). EU Kids Online'i Eesti 2018. aasta uuringu esialgsed tulemused. Kalmus, V., Kurvits, R., Siibak, A. (toim). Tartu: Tartu Ülikool, ühiskonnateaduste instituut

	Data shows also that more than half of the students use Internet more than two hours per day. On non-school days (e.g weekends) 18% of young people spend time on screen more than 7 hours per day. When girls spend more time in social media, boys play more computer games. As indicated already above, abundant screen time affects negatively children's health, wellbeing and studies.[58] In the context of digital literacy development, there is too little discussion in Estonia on how to deal with the impact of digital tools on children's health, socio-emotional and brain development and learning outcomes. The problem of overuse of digital devices among students and the potential problems that this entails is one of the reasons why some teachers are cautious towards the use of digital devices in teaching[59]. This approach, however, does not contribute to the acquisition of modern digital skills, which are crucial for coping in the digital society. A clear and comprehensive plan is missing on how to deal with risks of overuse of digital devices, what alternative activities and how to offer to young people.
DESCRIPTION AND THE RELEVANCE OF THE INTERVENTION	The solution cannot be taking away young people's digital devices, but to attract them to other activities. Firstly, evidence-based data on the use of digital devices is needed. So far, studies on the use of digital devices have been predominantly survey-based in Estonia, which means that the data are not accurate as estimates of the time spent with digital devices are approximate. An analysis based on real digital device usage data would give a more accurate picture of how many hours per day, what time of a day and which applications young people mainly use with their digital devices. Such a study would provide a clear picture of the potential scale of the problem and what groups are in the most vulnerable position. We are interested in the Swedish experience of similar researches - what methodology and technical solutions have been used to measure usage of digital devices. To tackle the problem, it is important to raise awareness (without frightening) among parents and young people of the dangers of digital addiction, but awareness raising alone is not enough. Providing attractive leisure activities for young people is crucial as it enables to address specific problems related with the overuse of digital devices. Participation in leisure activities also helps to reduce the amount of time young people spend on the internet in the absence of alternative activities. We propose a comprehensive meta-analysis to map what problems have been identified in Estonia so far with the overuse of smart devices among young people, what activities mitigate the negative consequences of the overuse of

[58] Oja L, Piksööt J, Aasvee K, jt. Eesti kooliõpilaste tervisekäitumine. 2017/2018. õppeaasta uuringu raport. Tallinn: Tervise Arengu Instituut; 2019

[59] Haaristo, H.-S., Räis, M. L., Kasemets, L., Kallaste, E., Aland, L., Anniste, K., Anspal, S., Haugas, S., Jaanits, J., Järve, J., Koppel, K., Lang, A., Lauri, T., Michelson, A., Murasov, M., Mägi, E., Piirimäe, K., Põder, K., Rajaveer, K., Sandre, S.-L., Sõmer, M., (2019). *Elukestva õppe strateegia vahehindamine. (*Interim evaluation of Lifelong learning strategy*).* Tallinn: Poliitikauuringute Keskus Praxis, Rakendusuuringute Keskus CentAR.

	digital devices, whether these activities are sufficiently available and accessible to young people in Estonia and what are the main barriers. Based on the analysis, recommendations for appropriate intervention approaches will be developed. The next step would be the design, implementation and impact measuring of interventions.

7. NAME OF THE TOPIC	**THE ALLOCATION OF SCHOOL PLACES IN TALLINN AND ITS IMPACT ON CHILDREN'S WELLBEING**
DESCRIPTION OF THE PROBLEM *Background information, facts or statistics that indicate to the existence of the problem*	There are two main ways of allocating the school places in general education: (1) the centralized allocation – the state or the local government allocates the places based on one or several centrally determined criteria (e.g. home-school proximity, siblings studying in the same school, socio-economical background, etc.), and (2) the decentralized allocation – the schools determine the conditions for the allocation of school places themselves, e.g. they may carry out the entrance tests if demand for the places is higher than there are school places. In general, school systems combine centralized and decentralized logics – to allocate the places in primary school level, the centralized allocation system is usually used. In case of secondary school, the decentralized method is more common. In primary education the decentralized method and especially the entrance tests are being avoided because of its stratifying effect – if children are chosen to school based on their capabilities, it stratifies the school system[60]. For that reason, the allocation of school places with the help of entrance tests does not, in general, begin earlier than in the 4th grade (as it is, for instance, in Germany and in England). Also, for that reason, some countries, e.g. Russia and Latvia, have even prohibited the entrance tests to the 1st grade[61]. Estonia, and especially Tallinn, stand out where different approach has been selectively chosen. If generally the school places to the 1st grade in Tallinn are allocated centrally, there are some schools (so-called "elite schools", hereinafter: the selective schools, where, in most extreme cases, there are approximately 10 applications per place), that are allowed to allocate the places themselves. Therefore, these schools, among other methods, carry out entrance tests. The effects of this system to the educational equity have been studied and found out (as the literature suggests) that carrying out the entrance tests to the 1st grades is highly stratifying: the likelihood of succeeding in entrance tests and getting the school place is much bigger for the children who have participated at the selective school's pre-school, who live in the centre of the city and whose parents have higher incomes and higher education[62]. However, while the effects of the described system on educational equity have been thoroughly studied, its impacts on children's wellbeing have not. There are several indications that allow us to presume that children's wellbeing is being damaged because of the current practice:

[60] Hanushek, E. A. & Wössmann, L. (2006). Does Educational Tracking Affect Performance and Inequality? Differences-in-differences Evidence across Countries. The Economic Journal, 116, 63–76.
[61] Põder, K., Lauri, T., Ivaniushina, V. & Alexandrov, D. (s.d.). 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
[62] Põder, K., Lauri, T., Veski, A., Veskioja, T., Peegel, K. H. (2012). Koolivaliku uuring: küsitlus Tallinna koolides 2012. Uuringu raport.

	• Considering high demand for the school places (ca 70% of the children entering to 1st grade in Tallinn apply for one or several selective school's place(s))[63] and short period for carrying out the tests, the schools where the tests take place are crowded and the testing time together with the waiting times between different tests could be quite long; • Many children take part of more than one school's tests: half of the children take part of the entrance testing in one school, another half in two or more schools. Approximately 10% of the children who go through testing do that in at least 4 different schools[64]; • A questionnaire conducted among the parents who went to the entrance tests together with their children showed that the process of testing and preparing for the tests was stressful for the parents[65] – thus, it could also be stressful for the children. • In Estonia there's a good and accessible public pre-school system, which means that additional pre-teaching in order to prepare children for the 1st grade is unnecessary. However, using private pre-teaching is very common: ca 70% of the children entering to the 1st grade in Tallinn participate at the private pre-school[66]. There are also children who are taught by the private teachers and who are simultaneously in several pre-schools[67]. Considering high participation rate in pre-school (93% of Estonian children aged 3-7 go to pre-school institution[68]), all of this is usually in addition to participating at the public pre-school institution. It is directly aimed at preparing the children for the selective schools' admission tests[69].
DESCRIPTION AND RELEVANCE OF THE INTERVENTION	We propose to carry out a study to investigate the impact of school entrance testing to the wellbeing of children going to the 1st grade. The research question of the study would be: how does the current system of allocating the school places among the 1st grades in Tallinn selective schools via entrance tests impacts children's wellbeing? As an important part of the system is the so-called pre-teaching of children (with the help of pre-schools, private teachers, etc.), we would divide the research question into two sub-questions: • How does **pre-teaching** impact children's wellbeing? • How do **entrance tests** impact children's wellbeing?

[63] Põder, K., Lauri, T., Veski, A., Veskioja, T., Peegel, K. H. (2012). Koolivaliku uuring: küsitlus Tallinna koolides 2012. Uuringu raport.

[64] Põder, K., Lauri, T., Veski, A., Veskioja, T., Peegel, K. H. (2012). Koolivaliku uuring: küsitlus Tallinna koolides 2012. Uuringu raport.

[65] Haugas, S. (2016). Lapsevanemate koolivalikuprotsess ja peamised determinandid – Tallinna selektiivsete koolide näide. *Bakalaureusetöö.* Tallinna Ülikool.

[66] Põder, K., Lauri, T., Veski, A., Veskioja, T., Peegel, K. H. (2012). Koolivaliku uuring: küsitlus Tallinna koolides 2012. Uuringu raport.

[67] Haugas, S. (2016). Lapsevanemate koolivalikuprotsess ja peamised determinandid – Tallinna selektiivsete koolide näide. *Bakalaureusetöö.* Tallinna Ülikool.

[68] OECD, 2019. *Education at a Glance 2019: OECD Indicators, Paris.* [Võrgumaterjal]
Available at: https://doi.org/10.1787/f8d7880d-en

69 Haugas, S. (2016). Lapsevanemate koolivalikuprotsess ja peamised determinandid – Tallinna selektiivsete koolide näide. Bakalaureusetöö. Tallinna Ülikool.

	We recommend using a research method that combines qualitative and quantitative analyse methods, namely: • Literature review to map the knowledge we have so far about the impact of pre-teaching and school entrance tests among 1st graders to their wellbeing; • Questionnaire among the parents of the children who participated at the selective school entrance tests to map the parents' attitudes regarding the current system's impact on children's wellbeing. To analyse the questionnaire we would suggest using a quantitative data analysis method in order to map the scope of the problem (i.e. parents estimating the system's impact to children's wellbeing as negative/ neutral) and the impact of the current system to children's wellbeing based on parents' estimation; • Focus group and/ or individual interviews among the children who participated at the selective school entrance tests. The aim of the focus group/ individual interviews would be to understand the experiences of the children. • Focus groups and/ or individual interviews among the parents of the children who participated at the selective school entrance tests. The aim of the interviews would be to understand the experiences of the parents and to validate, whether the estimations of the children and the parents are similar.

8. NAME OF THE TOPIC	**NATION AND MIGRATION: HOW OPEN ARE YOUNG PEOPLE TO PEOPLE FROM VARIOUS ETHNIC BACKGROUNDS**
DESCRIPTION OF THE PROBLEM *Background information, facts or statistics that indicate to the existence of the problem*	Representatives of 194 nationalities live in Estonia. According to Statistics Estonia, the largest ethnic groups living in Estonia in 2018 were Estonians (905,677 people), Russians (328,864 people), Ukrainians (23,310 people), Belarusians (11,598 people), Finns (7,635 people) and Latvians (2,478 people). European Quality of Life Survey provides an insight into perceived tension between different racial and ethnic groups. In Estonia this indicator has gone up from 2011 (16%) to 29% in 2016. In age group 18-34 the perception of tension between racial and ethnic groups has elevated even more – up to 39% (compared to 23% in 2011). Estonian Integration Monitoring is an in-depth national survey dealing with the field of integration and it has been carried out since 2000 at an interval of two to three years. The survey is contracted by the Ministry of Culture and the one carried out in 2017 was the seventh of its kind. 66% of people from other ethnic origin than Estonian feel that Estonians are in a better position regarding salaries and material wellbeing and only 26% found that they are equal to Estonians. If compared to data from 2015 the youngest age group (15-24 years old) perceive more inequality in 2017. EU MIDIS-II did not find high levels of discrimination. Russians in Estonia indicate following discrimination rates in the five years preceding the survey: 8% mention age discrimination and 7% felt discriminated against because of their ethnic origin.

	If one compares English speaking newly-arrived- immigrants with Russian speaking minority then the English speaking people perceive more often that they are welcome in Estonian society than the Russian speaking people, but the English speaking immigrants experience more often intolerance on ground of their ethnic origin and religion than the Russian speaking. The 2017 monitoring also pointed out that the newly- arrived immigrants feel that the Estonians are reluctant to build friendships and other relations with them. The chapter in Estonian Human Rights Report 2020 on national minorities and integration policy (by Triin Pohla) claims that in 2018–2019 xenophobia spread in the society - politicians' expressing insults towards black and people of colour (POCs) and acts of violence took place. The employers have increasingly been exposed to the phobia of foreigners and are increasingly more concerned that the politicians' statements inciting xenophobia are driving foreign origin employees away from Estonia. Policy wise the main course for integration policy has been based on the development plan approved by the government in 2014 called "Integrating Estonia 2020". In 2018 the Ministry of Culture started preparations for the new national integration plan "Integrating Estonia 2030". The new plan will articulate the goals of the Estonian integration policy and the actions for achieving these goals for 2021–2030.
DESCRIPTION AND RELEVANCE OF THE INTERVENTION	ECRI has suggested in 2015 that Estonia should campaign towards all vulnerable groups, and in particular the Russian-speaking minority and/or persons of undetermined citizenship, placing the emphasis on the fact that the state believes that each of these groups should integrate fully into Estonian society and that they are welcome there. Estonian Ministry of Culture allocated funds to conduct an information campaign to encourage young people with a different mother tongue to Estonian to apply for work in the public sector and to explain employment opportunities to these people. Prepared by the Estonian Integration Foundation (MISA) and implemented in the first half of 2017, this campaign was conducted bilingually in Estonian and Russian and included a media campaign on Internet, including social media, as well as several outreach activities in schools and universities. ECRI found that Estonia had followed the recommendations fully. However, the awareness raising and educational work towards youth to prevent and decrease discriminatory sentiments and racism is sparse and project based. Estonian school curriculums and study materials need to be analysed as to whether they pass on values of open and democratic society where the rights of each individual regardless of their ethnic origin, race or religion are respected. As teachers are the key stakeholders who can influence young people´s attitudes and perceptions on migration and multi-ethnic communities, the views and attitudes as well as knowledgeability of teachers should also be studied.

	In 2020 a human rights and development cooperation NGO Mondo will undertake a social media campaign in Estonia to influence and inform young people (age 15-35) on migration - immigration as well as emigration. In addition to the civil society efforts more comprehensive and specific endeavours in education and integration policies are needed to reach out to young people to ease the above described perceptions that there are ethnic tensions in Estonian society and to build youth´s tolerance and resilience to live in multi-ethnic society. The designed policies should rely on fresh data that elaborates further the above-mentioned indicators of perceived tensions and inequality in Estonian society.

9. NAME OF THE TOPIC	**PROMOTING THE MENTAL HEALTH OF YOUNG PEOPLE**
DESCRIPTION OF THE PROBLEM *Background information, facts or statistics that indicate to the existence of the problem*	According to the World Health Organization (WHO), mental health is "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community." Thus, it is not just an absence of mental disorders or mental health problems – it is a combination of subjective well-being, the adaptation skills, fulfilling one's potential, and participating actively in community life. Therefore, when thinking about solutions (interventions), it is essential besides eliminating the negative aspects of mental health (problems, disorders) to focus on promoting good mental health and well-being. Most of the mental health problems arise in childhood or during the years of younger adulthood: 50% of mental health problems revealed by the age of 14 and 75% by the age of 24[70]. Therefore the preventive activities already in the early years are of utmost importance as well as early recognition (and timely support and help). Early intervention may reduce, delay or even stop the development of mental health problems, which makes the evidence of different interventions as highly valued information and should, therefore, be equally available and well presented for the people, professionals, service providers, and policymakers. It is still important to advance the mental health literacy of our society[71], and making the information about different interventions widely available, as well as their evidence of effectiveness, helps to improve the current situation and promotes evidence-informed health policy decisions. In Estonia, there are 26% of boys and 40% of girls who experience the symptoms of depression. The frequency of young girls' sadness and depressive episodes has increased during the period 2010-2018 by 8%. The same indicators for boys have increased respectively 6% and 8%. There were 26% of girls in the age group

[70] Kessler, Berglund, Demler et.2005 Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication

[71] Survey on awareness and attitudes of society on mental health issues (2016): 62% of the Estonian population would prefer others not knowing about their mental health problem, and 35% agree that the main reason why a mental health disorder emerges is an individual's lack of self-discipline and willpower.

	of 13-15 years who had had suicidal thoughts, in case of boys in the same age group the indicator was 13%.[72]
DESCRIPTION AND RELEVANCE OF THE INTERVENTION	Evidence- informed health policy and decisions need to be supported by several aspects including gathering and spreading (research and intervention) data and presenting information in a user-friendly way[73]. In order to promote the mental health of young people, the aim should be to offer a solid platform where all respective interventions are introduced, the key evidence about their effectiveness is presented, as well as the estimation about their cost-effectiveness. This allows people, organisations, and decision-makers to choose the solutions respective to their needs. Using relevant approaches or frameworks, it should be analysed whether there are some gaps or areas, which are not covered yet. There are some examples that we can consider adapting to our situation. For example Public Health England has introduced a comprehensive synthesis of "Universal approaches to improving children and young people's mental health and wellbeing"[74], which aims to identify, synthesise and present key evidence of universal approaches to improving mental health and well-being of children and young people, with a view to informing policy and practice. Specifically, the review set out to consider evidence in relation to the following: • What is the effectiveness of universal approaches implemented to try to keep children and young people mentally well or prevent mental health problems? • What approaches show most promise of being effective in promoting mental health and wellbeing of children and young people? • What are the key gaps in the evidence? • What categories of outcomes are the focus of these interventions (prevention of emotional or behavioural difficulties, and/or promotion of resilience and wellbeing) and what tools and approaches are used to consider impact? • Which approaches are the most cost-effective and/or show positive return on investment? Methodically all relevant interventions were summarised in terms of 4 potential levels at which the intervention might operate to bring about change (each intervention might operate at more than one level): • individual; • family; • school;

[72] Oja L, Piksööt J, Aasvee K, jt. Eesti kooliõpilaste tervisekäitumine. 2017/2018. õppeaasta uuringu raport. Tallinn: Tervise Arengu Instituut; 2019

[73] Rahvastiku tervise arengukava 2020-2030

[74] Universal approaches to improving children and young people's mental health and wellbeing. Lay summary report of the synthesis of systematic reviews and grey literature review. Public Health England. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/842171/Lay_summary_report.pdf

	• wider community. Interventions were also summarised in terms of four possible aims (each intervention could have more than one aim): • prevent behavioural problems; • prevent emotional problems; • promote resilience; • promote subjective well-being. Interventions identified from the synthesis were rated for level of promise, such that those that had at least 2 individual studies providing evidence of effectiveness (by whatever standard they had used) for a given outcome were included in a list of promising interventions and key characteristics highlighted. Interventions identified from the review of systematic reviews were also considered for any evidence of evaluation of cost-effectiveness or value for money. What do we know about Estonia at the moment? The green book of the mental health of Estonia states that 60% of Estonian schools have applied for some intervention programs. Still, many of those are not evidence-based, or only one teacher or class is applying it. At the same time, school-based programs, especially from the perspective of bullying, are best described[75]. Therefore there is a strong need to have a wider look at the interventions that we have or don't have, for example, by following the method described above.

10. NAME OF THE TOPIC	**ACCESSIBILITY TO SUPPORT SERVICES AND APPROPRIATE SCHOOL ENVIRONMENT FOR CHILDREN WITH AUTISM SPECTRUM DISORDER (inc ASPERGER AND ADHD)**
DESCRIPTION OF THE PROBLEM *Background information, facts or statistics that indicate to the existence of the problem*	Autism spectrum disorders (or "pervasive developmental disorders") is characterized by a few features, some of which are recognizable within the first few months of life, when the child's social development is not age appropriate.[76] Others do not have any features before the age of 3, or even become visible when they go to school, or during major changes in elementary school. If the autistic traits are not strong and the environment has been supportive, difficulties may arise until late adolescence, going to university, or during other major environmental shifts. Some people learn to cope better with change and social demands in life and acquire the necessary skills, while others find it more difficult. Autism spectrum disorders are significantly more common in boys than in girls. Autism spectrum disorders can be divided into two subtypes: the more severe form is autism, which can also be accompanied by

[75] Haridus- ja Teadusministeerium 2017. Kiusamisvaba haridustee kontseptsioon. https://www.hm.ee/sites/default/files/kiusamisvaba_haridustee_kontseptsioon.pdf

[76] Lühiülevaade erivajadustest. 2017. Tallinna Ülikool. https://www.tlu.ee/opmat/ts/TST6004/3_lhilevaade_erivajadustest.html

	mental retardation, and the milder form is Asperger's Syndrome, which has no intellectual impairment.[77] Statistics and expert experience show that the number of children with autism spectrum disorder is increasing in Estonia. Reasons include environmental factors, helping children with serious problems through medical advances, and increased awareness and improved diagnosis skills. According to NIHD statistics, approximately 300-350 new cases of ADHD are diagnosed each year in children 0-14 years. ADHD is one of the most important mental disorders in children and adolescents, leading to significant disability in various areas of activity of the child and adolescent (learning, interacting with adults and peers, hobbies).[78] Other psychiatric and behavioural disorders and neurological disorders often co-occur with ASHD. Failure to treat ADHD increases the risk of developing other psychiatric and behavioural disorders, the use of psychoactive substances, and social exclusion.[79] Timely diagnosis of activity and attention disorders and long-term combination therapy reduce the risk of severe behavioural problems in children and adolescents and ensure a better level of coping in adulthood.[80] According to the diagnostic criteria provided by ICD-10, 1.5% to 2.5% of children with ADHD and 1% of children without hyperactivity developed ADHD. Of those diagnosed with ATH in their childhood, 60 to 81% continue to have symptoms throughout adolescence and up to 15% in adulthood. Studies in adults have shown that approximately 65% of adults diagnosed with the disorder have significant coping difficulties despite not having the number of symptoms required to diagnose the disorder. Approximately 700-800 new cases are diagnosed each year in children aged 0-14.[81] At a young age, children with ADHD are significantly more motor-active than other peers, both in structured and in leisure activities. They are less result-oriented and have great difficulty performing tasks that require sustained mental effort. They find it difficult to focus on more than one stimulus at a time, so they need more external organizational help than their peers. Conflicts with peers often arise because children with ADHD do not adhere to agreed play rules, behave very vigorously, and are therefore often excluded by other children. During adolescence there is a tendency to decrease hyperactivity. The persistence of pronounced impulsive behaviour in adolescence may lead to confrontation with the greater social demands of age, resulting in greater adolescence and peer criticism of adolescents with ADHD, which in turn contributes to the development of other psychiatric disorders such as depression, behavioural disorders, and psychiatric disorders.

[77] F80-F89 Psühholoogilise arengu häired e. psüühilise arengu spetsiifilised häired. Tartu Ülikooli Kliinikum. https://www.kliinikum.ee/psyhhiaatriakliinik/lisad/ravi/ph/80psyhhol_arengu_haired_e.htm
[78] Tervise Arengu Instituut. Tervisestatistika. 2018. https://www.tai.ee/et/tegevused/tervisestatistika
[79] Aktiivsus-ja tähelepanuhäire. 2008. http://enesetunne.ee/wp-content/uploads/2015/12/ATH.pdf
[80] ATH ravijuhis. 2009
[81] Tervise Arengu Instituut. Tervisestatistika. 2018. https://www.tai.ee/et/tegevused/tervisestatistika

	A hyperactive or ADHD school child needs a lot of understanding, support, and help from all school staff to successfully cope with learning, behaviour and communication.[82] As the education of children with special needs is the responsibility of the local government, the schools must accept these children. Often, however, schools are not prepared (staff shortage, knowledge, and support) to create a school environment that is suitable for these children. These children are often denied access to small classes due to staffing shortages, and children with special needs themselves, classmates and teachers suffer in large class. In fact, today we are in a situation where no one has properly mapped the needs of children with autism spectrum disorder and ADHD. This makes it difficult to change something at national level as well.
DESCRIPTION AND RELEVANCE OF THE INTERVENTION	One major problem is that the problems and needs of children with autism spectrum disorders and ADHD have never been mapped in Estonia. Considering both autism and ADHD, these may be different when needed, but some generalizations could be made to agree on an action plan. It is also very important to map the needs of teachers (school) and parents (especially what they expect from school). As many children with special needs also need additional therapies (usually they have a rehabilitation plan), it would also be important to map the availability and quality of these services. Given the current situation in Estonia, where many children with special needs have their disabilities removed and the rehabilitation plan completed, the impact on children, parents and the school should be analysed. Once all the mapping has been done, one ideal solution will be developed and piloted. To this end, all teachers, parents and, where appropriate, relevant professionals are involved. An ideal classroom (school) environment is created, which is then constantly monitored (i.e. asking for feedback from teachers, students and parents). The aim would be to apply a similar model to other schools once the pilot is over.

[82]Aktiivsus- ja tähelepanuhäirega õpilane. 2011.
http://dspace.ut.ee/bitstream/handle/10062/17876/ATH_opilane.pdf