

Estonian School Culture – Endeavor for Learning Organisation at the Beginning of 21st Century

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School climate and culture form an environment for pupil and teacher well-being and development. Concepts of learning organisation, knowledge creation and management are applied to understand differences in school organisational culture as perceived by teachers in 2004, with some comparisons and developments from 2020. The main hypothesis: by becoming aware of and modifying school's social climate and culture stakeholders can support pupils' academic success. Results allowed identification types of schools and teachers in Estonia. School culture, value system, teacher attitudes influence pupils' optimistic acceptance of life, well-being, academic coping. The "learning developing school" supports pupils the most.

Keywords: school, teacher, learning organisation, school culture, school typology

INTRODUCTION AND CONCEPTION

Teachers, schools, and pupils are mostly intertwined for nine to twelve years. Teachers and schools preserve and transmit culture, traditions, values, and knowledge. This can be a solid support point or a possible risk factor for children, parents, and society. If school climate and school culture are not perceived as helpful aid by students, the result might be school avoidance and dropping out. (Ruus et. al., 2007, 52-55)

Rapid global changes at the end of the 20th century led to the idea that the era of industrial growth was being replaced by an information society through the "postmodern moment" (Lyotard, 1989, ix); "knowledge society", "sustainable society" (Uscher, Edwards, 1994), but also by "risk society" (Beck, 1992). Sustainability, lifelong learning, learning organisations and learning societies, and management, creation and innovative use of knowledge became important as concepts in philosophy and research and as practice. In this context, emphasis was placed on the changing role of schools and teachers in a knowledge-based learning society. (Raagma, Terk, 1997; Loogma, Sarv, 1998; Vilu, Sarv, 1997) Sustainability was related to inclusiveness and innovation, taking into account long-term results. (SHELL; Scenarios; Loogma, et.al. 1998) From this, it followed that school needed to prepare people for participation in a knowledge-based learning society. This approach was justified by the unexpected situation of rapid change to total distance learning due to "corona-crises" in spring 2020. (Lauristin et.al, 2020, 31, 46; Sarv, 2020)

The above dimensions – inclusiveness and innovation – influenced everyday life in school and the school climate and culture. Continuous and rapid changes challenged the traditional role and nature of school and the heritage of the authoritarian regime. Changes appear in an atmosphere that result from the activities and relationships between teachers, pupils, and school leaders. Concurrently, change appears in

documents regulating school life – school curriculum, strategic development plans, job descriptions and rules, and even more so in values and traditions.

School culture is often defined as the carrier of historically transmitted meanings that include norms, values, beliefs, traditions, and myths understood by members within the school community that shape thoughts and activities. The most important areas are educational, pedagogical, learning, and organisational cultures. Aspects such as moral education, a sense of belonging, fraudulent culture, teachers' implicit theories (as part of culture, as mind models) are also distinguished. Simply put, school culture describes both the general in all schools and the school's uniqueness. So, school culture is always at work, either helping or hindering learning. It influences every decision and action, from the leadership style of the principal to the way teachers choose curriculum materials and interact with pupils. The concepts of school culture closely or partially overlap with the school climate and school ethos. School culture as a concept and phenomenon is a common element in the development of two approaches – cultural (a broad general concept) and organisational (as an institutional, structural, and procedural whole for the purposeful targeting of people). (Beare, et. al., 1994, 172-179; Sarv, 2013, 151)

A special dimension of school culture has been pointed out by researchers and philosophers (e.g. James W. Botkin and Carl G. Jung) – a dark, subconscious “shadow” side: evil, mistakes, fears... This negative side of culture is not only hidden but is a taboo that is not recognised, which is preferred not to be seen or spoken about. (Botkin, 1999, 151) In terms of sustainability of the organisation and especially its educational consequences, the shadow school culture and negative subcultures deserve serious study and awareness in schools. (Beare, et.al., 1994, 172-179; Hargreaves, 1995, 23-46) It goes without saying that the above-mentioned negative aspects of school culture affect the school climate and well-being perceived by teachers and students, as well as learning at the level of the individual and the organization.

The first analysis of the application of learning organisation and school culture ideas in Estonian schools was completed in 2001 by E-S. Sarv (Sarv, 2002). Development plans of 60 schools (ca 10% of schools in Estonia) were analysed. Content analysis of structural elements of the development plans provided an overview of all aspects of school development, systematised them, and linked them with the main ideas and dimensions of sustainability and development of the education system, which were previously highlighted in the scenarios Estonian Education 2015.

Universal dimensions were used to sketch the model of school types:

- Orientation towards coherence vs. alienation and competition, which simultaneously recognises diversities and different ways of thinking (as a potential origin of creativity); and
- Openness, innovation, level of aspiration and orientation towards humanistic values, i.e. dynamism, creativity, and innovation vs. closure, conservatism, avoiding challenges, orientation for immediate benefit, stagnation, and conservatism. (Loogma, et.al., 1998)

It should be emphasised that in 2001, school development plans already included aspects of the key areas of learning organisations and knowledge management and viewed teachers as active and involved subjects/agents in school development. Plans continued emphasis on participation and democratisation, which was launched in 1987–1988 and continued in the curricula of 1996 and 2002. (Jaani, 2004, 14). Four types of school development plans included winning-competing, value-/human-centered, active learning organisation, and conservative-formal-passive features. Each type took a different approach for a pupil (and teacher) development environment. (Sarv, 2002)

In 2004, a complex survey was conducted on coping of Estonian schools, pupils, and teachers (Project, 2007) The study used a socio-ecological approach based on theories about the development of pupil and teacher abilities to cope with school conditions (Lazarus, Folkman, 1984, Lazarus, Folkman 1984; Lazarus 1991; Skinner et.al., 1997) and school as a learning organisation (Senge, 1995). The key concept of the project was ‘coping.’ According to Lazarus and Folkman, ‘coping’ is understood as cognitive and behavioral efforts of an individual aimed at coping with external and/or internal requirements. Skinner and Wellborn argue that pupils' academic coping – the way pupils interpret the challenges, drawbacks and difficulties that arise in the process of learning. The coping categories developed by the authors (project team) were based on presumption, that coping (and stress) is affected and develops within the interaction between the individual and environment (school climate, school culture). School culture can support or

restrict personal development and changes in school that result from internal development or external factors. The survey of pupils, parents, teachers and school leaders included 12% of all (general education) schools in Estonia. The study looked for a deeper understanding about the factors that directly or indirectly influenced pupil development based on teachers' perceptions and practices. Various types of schools, teachers were described based on school climate, culture, organisational learning, pupil academic coping skills and well-being (Veisson, et. al. 2004), and teacher coping patterns and mind models. (Veisson et al, 2007; Sarv, 2008, 132-139) Based on the characteristics of the sub-survey "School as a learning organization culture", four groups of school culture emerged: learning, student development centered schools (25% of schools); conservative schools (59%); schools with low educational attainment (8%); management-oriented schools (8%) (Sarv, 2008, 34-35; Sarv, 2020b, 207).

In current paper theoretical justification and methodology is presented briefly and explanation and research findings are derived mainly from teacher surveys (Sarv, 2008) with some additions (the perception of teachers, parents and students) from the 2020 survey (Sarv 2020a, Lauristin et. al. 2020).

School as a Developmental Environment – Organisational Culture

To what extent do schools, as learning organisations and supporters of the development of pupils, differ because of the experience and knowledge of teachers? By focusing on school from the teacher's perspective, we can highlight at least three views.

School as a whole organisation, as a learning and developmental environment for both the teacher and the pupil. For the teacher, this environment is related to professional development and coping, development of individual and collective knowledge, curriculum, and monitoring and supporting pupil development. The concepts of learning organisation (Senge, 1990; Marsick, Watkins, 2003) and knowledge creation (Nonaka, 1990; Nonaka, Takeuchi, 1995) are central.

Perception and awareness of pupils and their problems by teachers. The child-centred concept, including pupil learning and democratic participation was a central element of school reform in the 1980s and 1990s and part of the vision of the Estonian national school (Gretchkina, et al., 1988, 220). Perception of pupils and their problems is part of the teacher's mental model in Senge's theory (Senge, 1990; Senge 2001, Sarv, 2008).

Teachers as supporters of pupil development, especially academic success. School, its climate and culture, is a support system for the development of the pupil. Perception and awareness by teachers, the nature of cooperation of teachers (supportive or punitive), and the school's 'self-concept' shapes the pupil's developmental environment and cultivates various active or passive coping strategies. The formation and change of school climate and culture are areas of development of the school as a learning organisation. (Sarv, 2008; Veisson et al, 2007)

The soft systems view (Checkland, Schores, 1990; Churchman, 1971; Bertalanffy, 1968; Argyris, Schön, 1978, Senge 1990) has been chosen for the general methodological approach, which is intrinsically close to the ecological view (Bronfenbrenner, 1995). From the point of view of a systems approach, there are significant differences between teachers in their perception of pupils, school as an organisation, and school as a developmental environment for pupils. Additionally, there are significant differences between school cultures as learning and knowledge management environments. It is necessary to describe the situation of Estonian education from the teacher's point of view to discover typology of schools.

Nonaka (and Senge) do not view an organisation as a machine, but rather as a living organism that, quite similar to individuals, can have a collective identity and goals. It is an organisational self-consciousness – a shared understanding of what the organisation is working on, where it is on the road, in which world it wants to exist, and most importantly about how it intends to transform its perception of the world into reality (Nonaka, 1991, 103).

The main approaches to learning organisations are: Senge's future vision of the system (Senge, 1990); Pedler, Burgoyne, and Boydell's learning-focused (Pedler et.al., 1991); Garvin, Goh's strategic (Garvin, 1993; Goh, 1998) and Watkins and Marsick's integrated approaches (Marsick, Watkins, 2003). All approaches can apply to schools, but we consider Senge's model as most practical. It addresses the features of school and received attention in the 1990s and 2000s in Estonia.

It is important to note that systems theories scholars emerged in the Soviet Union. In Estonia, Heino Liimets¹ developed the most influential approach to the system of child environment and development as a whole. (Liimets 1982, 1983) His approach was particularly concerned about the perceptions and activities of the teacher. The school as an organisation was not discussed in great detail at the time.

Nonaka and Takeuchi's knowledge management theory and creation of tacit and explicit knowledge provides conceptual support for the pursuit of complex enterprises with high levels of innovation. (Nonaka, Takeuchi, 1995) From this point of view, teaching and learning in school is the processes of knowledge circulation and/ or creation: knowledge acquires new aspects, passes through different states, and passes from person to person, group, community, organisation, etc.

Senge's theory of learning organisation is based on the understanding of the organisation as a dynamic system that is interconnected and in which "five disciplines" of development/learning are perceived – shared vision, personal mastery, development of mental models, teamwork and team learning, and use of systems thinking (Senge, 1990, 150; Senge, 2001, 60).

Shared vision is a shared understanding by the members of the meaning and objectives of their activities in an organisation from a distant time perspective. Shared understanding is based on the integration of the individual, group, and the organisation's visions. In Estonia, the culture of vision-creation evolved from two factors: 1) the liberation of schools from ideology and bureaucracy pain from 1987–1996 during Estonian education renewal and 2) the 1996 school Curriculum (National..., 1996) and the establishment of a school development strategy plan in 2000. Both formulated the school mission and vision through a stakeholders' agreement.

Personal mastery is the ability to successfully cope with professional activities as well as activities in private life that affect professional practice (e.g. time factor management, recovery, and self-development). Professional mastery of the teacher includes methodological skills required in the contemporary classroom and a broad range of collaborative and communication skills. Pupil observation, peer monitoring, research, and reflection skills are also indispensable.

Mental models require knowledge of one's self and one's peers. Mental models of the members of the organisation are part of the organisation's culture. Mental models focus on awareness of attitudes, perceptions, values, and include reflection and research and attitudes towards them. Mental models are usually not expressed. They work below the level of awareness and often hinder change. One of the aspects of the teachers' mental models is the perception of the pupil, i.e., the imagination of what the pupil is (or 'pupil picture') as well as models of values and 'correct' teaching-learning behavior.

Learning in teams results in mutual enrichment (learning from one another) and is a way to develop a shared vision and mental models. Through dialogue, discussion, and more complex cooperative methods, groups transform their collective thinking, learn to mobilise energy and deeds to achieve common goals, and highlight knowledge and capabilities that are greater than the sum of individual members' knowledge and abilities. Formal and informal groups in the school organisation and group dynamics are important for the growth of the organisation's capacity (learning, creating a common vision, curriculum development, etc.), as well as for the membership and recognition of the needs of members of the organisation. Schools have formalised structures, such as classes and methodological committees that work spatially together for a long time, but often they do not form a real learning/research team but are rather a place for coordination of short-term individual activities. It is also important to understand that in a group, there is intensive knowledge circulation and knowledge creation. This process also involves reflection and meta-consciousness, the level of which depends on the group's level of trust and development of the group as a micro-system. In schools, reflective teamwork and learning groups form the basis of development.

The development of systems thinking required consideration of the past-present-future dimension, the local level (class, school, or subject matter), and the global level (meanings and effects of an individual phenomenon and activity in the context of a society or a person's life on a local and global scale). The improvement of systems thinking means a) growing theoretical competence (the body of theory – theoretical, conceptualized, and conscious perceptions); b) feedback on activities, and c) complexity, i.e. awareness of the system's inherent internal tendencies and the external context that lead to the growth or stability of the system/organisation over time. Systems thinking in the context of schools must take into

account the dynamic and interactive components of pupils, teachers, parents, the class-community, the school as a whole, and individuals. As early as the 1980s and 1990s, Slaughter and Beare emphasised the development of future and systems thinking abilities of the teacher (Beare, Slaughter, 1993, 1995). In the case of the individual, systems thinking also means shifting from ‘self-level’ to ‘our-level’.

Senge’s five key areas can be considered aggregate features of learning organisations. Measuring their qualitative ‘level’ is complicated, but their description can provide an image of a specific learning organisation.

Using the above, general fields and features of the school as a knowledge- seeking learning organisation were derived and covered by combinations of questions and statements in questionnaires for teachers, but partly also for pupils, school leaders and parents as presented in Table 1. (Sarv, 2008, 34-35)

TABLE 1
FEATURES/DIMENSIONS OF SCHOOL AS A LEARNING ORGANISATION

Key features	Content/characteristics
Field I – Reflection and research	
1. Teacher reflection and research	Self-reflection, self-analysis, the reflection of pedagogical activity at individual pupil and at the class level, and level of research
1A. Monitoring	Level of monitoring and analysis systems at school
Field II – Key areas of the learning organisation	
2. Teacher's personal mastery	General professionalism of teaching (methodological diversity, and compliance with curriculum, syllabus, and development plan)
3. Teacher's mental models	Teacher values, motivational orientation, readiness for innovation and self-independence, and level of development
4. Team learning and teamwork	Level of formal and informal cooperation and teamwork
5. Shared vision	Existence of common, shared perspectives (vision, mission), degree of acceptance and realisation of educational goals
6. Systems approach	Level and development of future-oriented cooperation, both in terms of the school's main objectives and also in support of individual zones of proximal development in pupils
Field III – School climate and culture	
7. Perceptions of management by the teacher	Level of innovation and sustainability of democratisation
7A. Cultivating consensus and common values	Level of shared understanding (including absence of conflict, jealousy, etc.) and level of acceptance of shared values and their implementation
8. Curriculum	Participation in development process of curriculum and school strategic plan

	Adoption of the basic ideas and requirements of the curriculum and development plan Convinced of their fulfillment
9. Satisfaction and dedication to teacher work	Level of satisfaction, independence, and commitment
Field IV – Knowledge-management, knowledge-creation	
10. Cooperation	Degree of teacher-perceived cooperation (including communication of information), togetherness (including confidence), and of support among teachers at the school level, individual pupil, and class (or community).
11. Interaction	Degree of knowledge circulation between teachers and of knowledge creation at the school level – joint participation in work on curriculum and strategy plan development, mutual learning-teaching – work with individual pupils and with the class as a whole
12. Information flow	Formal level of information distribution, sharing in school
13. Innovation and recognition, appreciation	Support, recognition, and appreciation of innovation, research (knowledge creation) and active information seeking

The common goals, culture and spirituality of the school as a community and as an organisation are shaped and realised through the values cultivated in school. At the level of the individual, they are part of the mental models. At the community level, aspects of school culture occur both in a formal setting (lessons, teachers' meetings) and also through informal communication and assessments.

Survey Sample and Methods

The research (2004) was part of the research project 'School as a developmental environment and pupil coping' that gathered data on various aspects of school life from the main stakeholders – pupils, parents, teachers, and school leaders. The purpose of the research was to clarify what pupil groups are at risk and why. Analysis of the data sought to find discover what are the strategies and perceptions of the school and teachers about school climate and culture and how do schools and teachers differ as supporters of pupil development and coping. School is a learning organisation and agency for influencing pupil development.

The teacher questionnaire use the Likert scale (1 – completely disagree, 2 – rather disagree, 3 – more or less agree, 4 – completely agree), and statistical processing of the data used data processing package SPSS 14.0, SPSS 11.0, and MS Excel. Features were derived from the coefficient of validity (Cronbach's alpha) of at least 0.67. Component analysis was used to determine the role of the selected questions in this indicator. The statement was worded in such a way that acceptance would refer to the desired, positive direction of the fundamental dimensions mentioned in Table 1. For mapping schools, the ranking of schools was based on an average of the features, typology of teachers, and cluster analysis of schools. The sequencing method (based on teachers' average answers) allowed ranking of schools for multiple aggregates. School rankings were summarised and based on the sum of place codes.

In 2004 during the first phase of the study, teachers (n = 623) completed self-assessing questionnaires. The survey involved approximately 12% of general education schools and 4% of teachers. The results were generalised for schools and teachers. In summary, the correlation between all 13 characteristics mentioned in Table 1 was statistically significant (<0.01). Such a strong correlation means that the set of characteristics

was comprehensive and, despite the differences between schools and individual teachers, groups of teachers can be used to describe and study the school system and individual schools.

In 2020 The Education Forum's survey "Coping of Students, Teachers and Parents experience during the Coronary Crisis" was conducted as an online survey during the last week of quarantine (12.-18. May). The aim of the study was to capture the immediate experience of the parties in the educational process in coping with the challenges posed by the abrupt transition of the learning process to distance learning in a virtual environment. The survey was conducted as a so-called flash survey in the social media environment. Through the Education Forum's FB pages, teachers, parents and learners completed a questionnaire that included questions about coping with the role of learner, teacher and parent in forced distance learning, learners' self-management experiences and needs, positive and negative lessons, and use of technology. The questionnaire was disseminated online through the HF network. During the week, 686 students, 515 parents and 338 teachers completed the questionnaire. Although the survey was not based on random sampling, but rather on the so-called snowball method, the number and diversity of respondents was large enough to provide an opportunity to analyze the responses of teachers, students and parents across different groups of respondents and to draw some conclusions (Lauristin, et.al., 2020, 2). Among others, the study included 9 open-ended questions (analogous to all groups of respondents), which provided an opportunity for content analysis and sketching of a grounded theory. In one sub-survey I try to find out how the school and the teacher were perceived and how they differ. The coping and patterns of activity of the school and teachers can be related to the school as a learning and knowledge-creating organization (which in this situation was every school), as well as to the mental models of teachers. (Sarv, 2020a) These are the initial results and conclusions of the pilot study, but they could also give an idea of the resilience and flexibility of school culture.

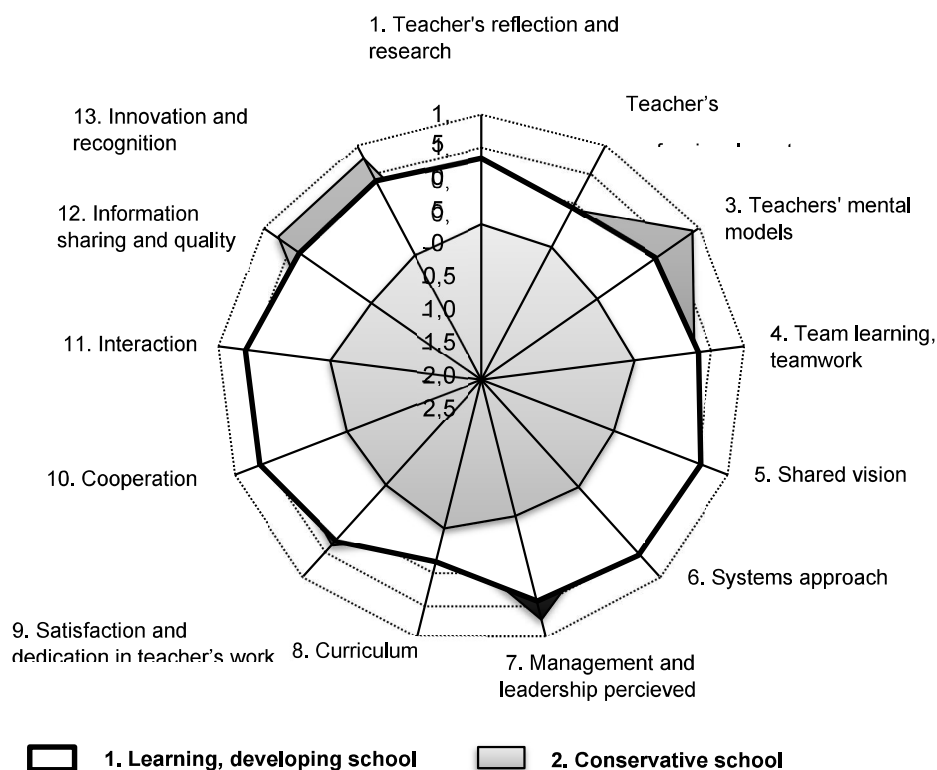
FINDINGS

Typology of school as a learning organisation, 2004. To analyse school typology, 49 schools, representing each of the counties, cities, stronger and weaker schools (according to three years results of state examinations), and schools working in Estonian, Russian and in both languages with 6 to 29 respondents and 587 teachers participated.

Based on the characteristics of the culture of learning organisation (Table 1), a 4-group distribution was sufficient: learning, development-centered schools (25%); conservative schools (59%); schools with poor learning ability (8%); and management-centered schools (8%). The general description of these groups is illustrated in Figure 1 and Figure 2.

It became clear that in almost every feature, there were differences between schools in Tallinn (the capital) and rural areas and schools teaching in Estonian or in Russian. This indicates specific differences in school culture. However, the general typology does not show clear divisions by language or school location.

FIGURE 1
GROUPING OF SCHOOLS AS KNOWLEDGE-MANAGING, LEARNING ORGANISATIONS.
LEARNING, DEVELOPING SCHOOLS AND CONSERVATIVE SCHOOLS



Learning, Development-orientated Schools (25%, Figure 1)

These schools were characterised by a relatively uniform picture of positive standardised mean values for all features. In seven indicators, the mean was the highest value compared to other clusters. Compared to other features, the value of teacher personal mastery, mental models, and curriculum is slightly lower. This refers to some degree of self-criticism or uncertainty (as compared to other features) or higher demands in the view of teacher skills. At the same time, there are features of the learning organisation and knowledge management such as the shared vision and systems approach (view of the future and its transfer to the learning process and common understanding of educational issues) and cooperation and interaction (active position in development of the school and in development of self and pupils) which had a Zscore >1. Teachers rated themselves higher as reflective and researching practitioners than in other groups. Therefore, this group of schools can be characterised as learning, development-oriented and well and evenly developed in all fields and believable as child-centred schools.

This group included some special needs schools, one private school, four Tallinn secondary schools (including an 'elite' school), two rural schools, and four Russian-language schools. This showed that child-centered learning schools could evolve in a variety of regional environments and have a various pupil contingent.

Conservative Schools (59%, Figure 1)

This school group is by far the largest: it also determines the zero level for each attribute and aggregate character by which other schools are rated/described.

The picture of a development-oriented and conservative school group shows that both groups are relatively similar to a 'pattern'. However, the first type of schools is characterised in all areas and in all the attributes of higher in Zscores unlike the other groups of schools. This means that conservative schools

have lower beliefs, positivity, satisfaction, dedication, self-esteem, and cooperation as illustrated in Figure 1 and Figure 2. We can, therefore, speak about the culture of a 'broad' and a 'poor' school. Unfortunately, the overwhelming majority of the schools were 'poor'. Often, some of these schools had a school-climate perceived by pupils as indifferent or formal.

Schools With Poor Learning Abilities (8%, Figure 2)

They were viewed as outsiders, conservative and relatively controversial schools, characterised by significantly lower averages in most characteristics than in corresponding indicators of other schools. Teacher personal mastery and curriculum-work was average. Team learning, collaboration, and interaction indicators were particularly low, indicating that in these schools, the level of pre-requisites for learning organisation and knowledge management and knowledge circulation was very low compared to other schools and insufficient to trigger or achieve profound changes on its own. Nevertheless, teachers appreciated their ability to meet curriculum and development plan requirements at a relatively high level. These schools could be considered schools at risk, based on teacher attitudes towards development and change. In these schools, changes took place through external rather than internal processes. In the terminology of the knowledge-driven learning school, these would be conservative schools with relatively poor learning ability. Because teachers in these schools perceived management aspects as very weak (no participation and no positive feedback), these schools could be considered insufficiently guided and managed.

To achieve real change in these schools, it is possible to rely on the areas perceived by the teachers themselves to become stronger. For example, in one school, the teacher had a personal mastery and faith in fulfilling the curriculum, and in another school – a self-concept related to the study and development plan and future optimism. Some schools had strong reflection and research areas, which is a good basis for the right steps for change.

Nevertheless, a deeper change in mentality and management change seems necessary to increase the ability of these schools to develop. There is also a need for internal and external training to address schools' actual problems – incapability of school as an organisation. The latter should be geared towards teamwork and cooperation skills and the specificities of the school in other areas.

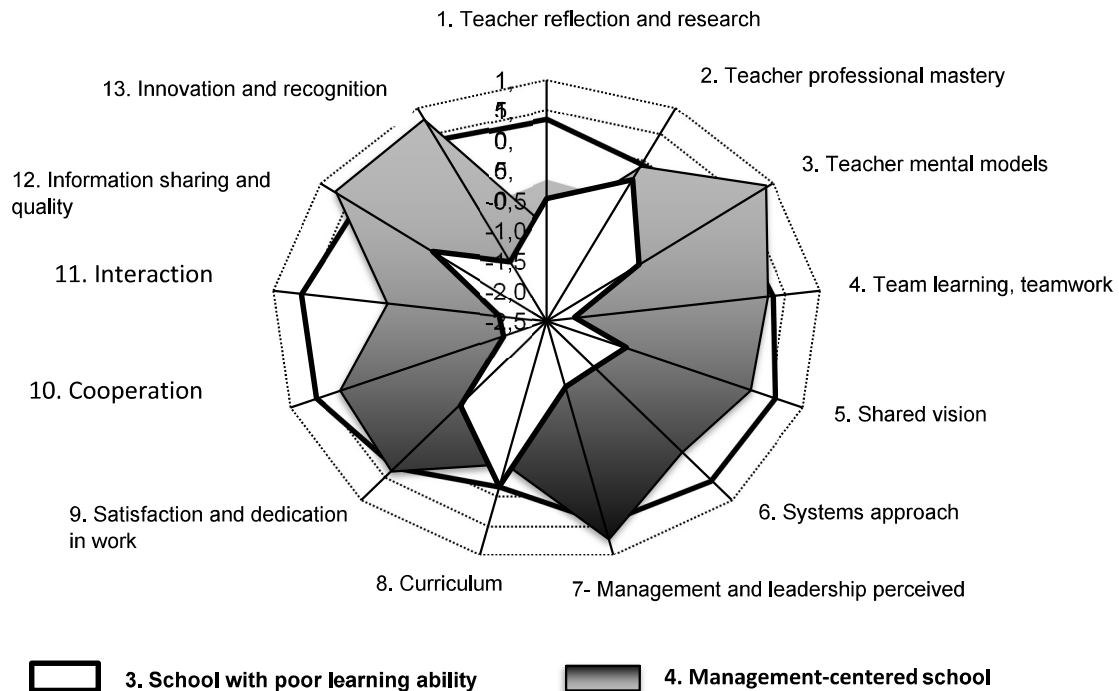
Governance/Management-Centered Schools (8%, Figure 2)

Schools in this group are learning-centered with teacher-friendly organisation. Particularly high were four characteristics: teacher mental models, perceptions of management, information and innovation, and recognition. Teachers' personal mastery, teamwork, and collaboration, satisfaction and dedication to teacher work was at the same level of the conservative school group. However, teacher involvement in reflection and research was much lower than in the conservative group.

Teachers of management-centered schools considered school innovative. They perceived themselves as recognised, participatory, and autonomous and were satisfied and committed: these were schools with a school culture favorable to the teacher development. However, there were certain disturbances in the field of interaction (active cooperation between teachers for the benefit of pupils and in school and curriculum development aspects). Particularly critical was the state of reflection and research for teachers in this group perceive, which, compared to others, was very weak. This referred to either strong self-criticism or self-centeredness. Regardless, the importance of intensive development and training can be recognised here. From the point of view of the school, this was a well-managed, perhaps even hierarchical and authoritatively leader-based school.

The group of management-centered schools included basic and secondary schools, city and rural schools, and a private and an elite school. These schools showed high satisfaction towards the director (3.88–3.25 in a 4-point system; the average is 3.21).

FIGURE 2
GROUPING OF SCHOOLS AS KNOWLEDGE-MANAGING, LEARNING ORGANISATIONS.
SCHOOLS WITH POOR LEARNING ABILITY AND MANAGEMENT CENTERED SCHOOLS



It should be noted that the inclusion of stronger or weaker schools, based on results of examinations, is not directly related to the fact that the school has stronger or weaker learning cultures (as perceived by the teachers).

Another part of the 2004 study distinguished schools according to teacher mental models and aspects of school-culture and school-climate derived from those models into four types of schools: schools with a positive pupil picture and cooperative orientation of teachers – 30%; neutral, passive schools – 47%; schools with a conflicting pupil picture. There are some indicators of child-centredness, but in general, schools are oriented towards the individual work of the teacher – 9%; schools with a pessimistic pupil view, focused on an individual teacher – 13%. (Sarv, 2008; Sarv, et. al., 2008)

Typologies of teachers according to mental models were described as well. Seven aggregated categories and 23 indicators were developed and statistical calculation (correlation analysis, validity) was used to analyse the results of a survey of 87 questions. As result teachers with positive and pessimistic image of students were distinguished, differences by age, gender, work experience, school location, etc., and four groups/types of teachers in schools in Estonia were described: pessimists or risk-group (4%), stress-sensitive group (48%), self critical group (18%), optimistic, co-working positive group (30%). (Sarv, et. al., 2008)

The typology of schools from teachers' perspectives of learning organisational culture was connected to the typology of school social climate as perceived by pupils – pupil-hostile; formal-cold; pupil-friendly and demanding; and mediocre. (Ruus, et. al., 2007)

An interesting contradiction was discovered. Some schools were relatively well-advanced in most or in all of the teacher-based characteristics, but pupils perceived them as unfriendly and cold; they were not happy. (Ruus, et.al., 2007) This intriguing aspect of school cultures generated some controversial questions and assumptions and needed further research.

The 2020 Experience

The free answers revealed different groups of teachers and schools. Based on the perceptions of the respondents, the teachers were divided into two “extreme” groups: teachers with a formal/traditional/controlling approach versus a child-/learner-centered approach (Sarv, 2020 manuscript). Different personal pedagogical paradigms of teachers, different mental models emerge here. As it was shown in Loogma, et. al. - teachers in favor of learner autonomy as well as in learner control differed (Loogma, et. al., 2020, 12). Of course, it is a continuum, but these "extremes" were clearly distinguishable.

It is likely that this distribution of teachers corresponds to two "extreme groups" of teachers' mental models in the 2004 study: pessimistic, risk group and optimistic, co-working group. However, further research is needed in this regard.

On Schools

The school of coronary distance learning can be described to some extent through the experience of teachers, as reflected in their free answers. (The results of the analysis of students 'and parents' responses have been used rather as emphasizing and illustrating certain aspects.)

The content analysis of the teachers' answers was based on the characteristics of the above-mentioned 2004 school survey. Thus, the school is considered as a learning, developing and knowledge-creating and knowledge-leading organization (see Table 1).

In the perception of teachers (and all three groups of respondents), schools were broadly divided into two groups (with a continuum between them):

- schools quickly organized in new conditions (quick discussions-meetings-agreements with teachers or management arrangements, IT support from a specialist, assessment and feedback recommendations or negotiations in the teacher community, etc.), and
- confused schools where the teacher was initially relatively alone, there was no clarity in organizing distance learning (according to the timetable or free regime, time coordination, availability of IT tools and support, etc.). (Sarv, 2020a)

In general the typology of schools in 2002 (based on the development plans of about 60 schools) was recognized, as well as the typology of teachers' mental models and schools in 2004 (Sarv 2002, 2007; Sarv, et. al., 2008) and coping models and typology of school climate (Ruus et al., 2007). The first group of schools in 2020 (pilot)study was quite similar to child-centered learning schools in 2004 survey, the second one – to poor learning schools.

The results of 2020 study show, that both teachers and students had to learn time planning, self-management and self-discipline (Loogma, et. al., 2020, 13). Help was also received from colleagues, and it was considered important to have "school support and teacher trust." (ibid, 19) The establishment of common rules for the digital environments used within schools was considered very important (ibid, 21).

The organization of digital learning by schools was different. For some schools, the use of digital tools and environments had been agreed, but in some cases, teachers had to find suitable tools themselves. School co-ordination and agreements on the use of digital tools were considered by teachers as school support. The lack or confusion of common rules or agreements was created in the use of technical solutions, in the organization of video learning as well as in the demands placed on students and in relations with homes. Compliance with data protection requirements was confusing (ibid, 43-44). The features of learning and knowledge creative schools appeared approximately in 40% of responses. This does not mean, that 40% of schools (in research, in Estonia) belong to this type, as respondents had not to identify their school. Future studies will go deeper and give answers for many questions raised by this pilot research.

One parent has put their experience in the way, that could be seen as generalisation: The school could have tried even more consistently to support community spirit, etc. For example, in Zoom, a parents' meeting - either for the class, for each school level, for the school - where real topics can be discussed in real time. It could be used to generate ideas, including to solve problems. There were certainly difficulties that could have been overcome together. It seems that the social side was rather unsustainable throughout this process. Which probably indicates that this whole aspect is unconscious and secondary from the school's point of view. (Parent 112).

CONCLUSIONS AND DISCUSSION

Alongside the underestimation of ‘soft’ values such as creativity in general school culture, there were clear signs of the inadequacy of the principle of equal opportunities, as typologies showed.

When approaching the school as a learning institution, there was a striking difference between schools and the school communities in a collaborative culture. In only a few schools was teamwork culture sensed by all teachers and school staff.

The Estonian study shows a clear relationship between the pupils' feelings and coexistence in corresponding schools, and knowledge-creative, learning school organisational culture and teacher competencies, as some researchers have shown earlier. (Hargreaves, et.al., 2001; Haregraves, 1999). Therefore, the internal culture and climate of the school – trust, justice, tolerance, and verbal culture – should be further analysed and evaluated, and a great deal of effort is needed to keep the school climate healthy.

The actual school climate and culture can be assessed and understood through systematic research and monitoring of many aspects of school life. The higher the level of systems-thinking among teachers and school leaders, the more adequate the research. Unfortunately, an atmosphere that supports teacher reflection and research was unanimously attributed to teachers in every fourth school only. Nevertheless, 95% of the respondents thought they had enriched their experience through interaction with other teachers (Pallas, 2008, 98). This indicated that teachers felt the culture, atmosphere of learning, innovation and mutual enrichment in schools. But, there is marked polarisation between schools in this area. In some schools, learning and exploration are a part of school culture, but in others, the teacher-researcher often perceives him or herself as a first-aid medic.

The teacher's interest in researching topics such as active learning, alternative pedagogy, integration, special education, his/her subject, methodology, and pedagogy correlated positively with the teacher's methodological experience – even more so with the teacher's degree of commitment. There was also a high correlation between research, educational interest, and how often the teacher spoke with pupils about self-development and the future.

These aspects are the intertwining of collective atmosphere and governance structures – school culture and organisational culture – and the teacher's own professional mastery and personal qualities. And no doubt, in each school there are those who prefer routine, stress-free, smooth situations and perceive innovations and challenges as disturbing and tedious. The components of joy, satisfaction, and happiness are related to physical well-being, the absence of negative emotions, and meaning-wealth (Carter, 1998, 103).

It is important to note that according to some researchers, the teacher is a relatively conservative and not too creative learner, oriented toward joint activities – even during initial teacher education. (Sarv, 1999) Only about one-third of teachers working in general education have the social readiness to adapt and innovative approach or are innovative in their pedagogical work. (Kera, 1998). On the other hand, a large number of teachers have quickly acquired computer competences and can successfully adapt to new opportunities at school such as e-schools. This refers to the general willingness and ability of teachers to learn.

In 2007 and following years by the request of the school director, researchers did the detail analyses of the school's culture, climate and pupils coping in about 1/3 of involved schools. Usually, the “school picture” was presented at teachers' meeting and used as the basis of the new development plan.

CONCLUSION

The overall typology of schools shows that a group of schools that is more successful or more positive in all areas is distinguished. However, this group is far from being just the ‘elite’ schools, as one might expect. No schools with a positive child-attitude had learning disabilities as the learning organisation. The requirement by the national curriculum to create school curriculums and school development plans in cooperation with stakeholders has forced schools to also learn. Approximately half of the schools are

capable of learning: some of the elements of this culture are already there, but schools that are poorly managed need external help. This seems to be true as for 2004, so for 2020, but needs further study.

Although distribution of schools of this nature may seem to be quite trivial in the final analysis, we have mapped a great number of schools and can describe schools and aspects of school culture based on a large number of features. Moreover, this analysis offers schools the opportunity to create mapping either by using a questionnaire or as part of professional development.

Understanding differences in school-cultures allows more precise strategic planning of education on all levels from the pupil to the school and to the nation.

There is also a lack of development of a vision through different organisation levels and working groups. This results in the strength of some areas, the weakness of others. The overview and coordination of the value chain, value network, or hierarchy is poor.

In many schools, individual success, individual failure, and teaching of subjects separately predominates in place of a systems approach. This means strengthening intra-school competition (although both school leaders and teachers declare cooperation), which also affects pupils. So, the school will indirectly shape society over the next decades as a competitive society.

To become a learning and knowledge-creative school and survive as such often requires analysis and re-development of existing school culture. A democratic and human(istic) society needs a democratic and human-centered school culture.

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ENDNOTE

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REFERENCES

- Argyris, C., & Schön, D.A. (1987). *Organizational Learning*. Reading, MA: Addison-Wesley.
- Beare, H., Caldwell, B.J., & Millikan, R.H. (1994). *Creating an Excellent School*. London: Routledge.
- Beck, U. (1992). *Risk Society*. London: Sage.
- Bertalanffy, L. (1968). *General System Theory*. New York: Braziller.
- Botkin, J.W. (1999). *Smart Business: How Knowledge Communities Can Revolutionize Your Company*. New York: The Free Press.
- Bronfenbrenner, U. (1995). Developmental Ecology Through Space and Time: A Future Perspective. In P. Moen, G.H. Elder, Jr., & K. Lüscher (Eds.), *Examining Lives in Context* (pp. 619-647). American Psychological Association.
- Carter, R. (1998). *Mapping the Mind*. Los Angeles: University of California Press.
- Checkland, P., & Schores, J. (1990). *Soft Systems Methodology in Action*. Chichester: Wiley.
- Churchman, C.W. (1971). *The Design of Inquiring Systems: Basic Concepts of Systems and Organization*. New York: Basic Books.
- Eesti Teadusinfosüsteem. (n.d.). *Project “School as Developmental Environment and Students’ Coping”* (SF0132495s03, leader M. Veisson). University of Tallinn, 2003–2007. Retrieved January 1, 2017, from <https://www.etis.ee/Portal/Projects/Display/ce8cbd34-12bd-49ff-a5fe-b962449ae6d6>
- Garvin, D. (1993). Building Learning Organizations. *Harvard Business Review*, 71(4), 78-91.

- Goh, S.C. (1998). Toward a Learning Organization: The Strategic Building Blocks. *S.A.M. Advanced Management Journal*, 63(2), 15-20.
- Gretchkina, E.R., & Liimets, H. (Eds.). (1998). *Na puti k novoi shkole: opyt perestroiki narodnogo obrazovanija v ESSR* [On the way to a new school: the experience of restructuring the national education in the Estonian SSR]. Moskva: Pedagogika.
- Haregraves, D.H. (1999). The Knowledge Creating School. *British Journal of Educational Studies*, 47(2), 122-144.
- Hargreaves, A., Earl, L., Moore, S., & Maning, S. (2001). *Learning to Change: Teaching Beyond Subjects and Standards*. San Francisco: Jossey Bass.
- Hargreaves, D.H. (1995). School Culture, School Effectiveness and School Improvement. *School Effectiveness and School Improvement*, 6(1), 23-46.
- Jaani, J. (2004). Õppekavakogemus õpetab. [Curriculum-experience gives a lesson]. *Haridus* [Education], 11, 11-14.
- Kera, S. (1998). Õpetaja sotsiaalne valmidus kasvatus eeldusena. [Teacher's social readiness as a prerequisite for education]. *Tallinna Pedagoogikaülikooli toimetised. Humaniora A9* [Proceedings of Tallinn Pedagogical University. Series Humaniora A9], Tallinn, pp. 110-125.
- Lauristin, M., Loogma, K., Erss, M., Vernik-Tuubel, E-M., & Sarv, E-S. (2020). *Õpilaste, õpetajate ja lastevanemate toimetulek koroonakriisi aegses kaugõppes*. [Coping with distance learning during the corona crisis for students, teachers and parents]. Tallinn: Eesti Haridusfoorum. Retrieved from https://haridusfoorum.ee/images/2020/Distantsppe_uuring_EHF_250720.pdf
- Lazarus, R.S. (1991). *Emotion and Adaptation*. Oxford: Oxford University Press.
- Lazarus, R.S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. NY: Springer Publishing Company.
- Liimets, H. (1982). *Kak vospityvaet process obučenija?* [How the teaching-learning process educates?]. Moskva: Znaniye.
- Liimets, H. (1982). Õpilase isiksuse areng ja integraalne didaktiline süsteem [Development of pupil's personality and the integral didactic system]. *Nõukogude Kool* [Soviet school], 6, 16-21.
- Liimets, H. (1983). Iseregulatsioonilt eneseregulatsioonile. [From (spontaneous) self-regulation to intentional self-regulation]. *Nõukogude Kool*, 11, 18-20.
- Loogma, K., & Sarv, E-S. (Editors). (1998). *Eesti ühiskond ja haridus – 2015* [Estonia society and education – 2015]. Tallinn: Eesti Haridusfoorum, Avatud Eesti Fond.
- Loogma, K., Ruubel, R., Ruus, V., Sarv, E-S., & Vilu, R. (1998). *Estonia's education scenarios 2015* [the first version]. Tallinn: Eesti Haridusfoorum.
- Loogma, K., Ruubel, R., Ruus, V., Sarv, E-S., & Vilu, R. (1998, May). Estonia's Education Scenarios 2015. *The 21st Century Learning Initiative Journal*. Retrieved from [//www.21learn.org/test/newslet.html](http://www.21learn.org/test/newslet.html) (accessed 18.02.2018)
- Liotard, J-F. (1989). *The Postmodern Condition: A Report on Knowledge*. Minneapolis: University of Minneapolis Press.
- Marsick, V.J., & Watkins, K.E. (2003). Demonstrating the Value of an Organization's Learning Culture: The Dimensions of the Learning Organization Questionnaire. *Advances in Developing Human Resources*, 5(2), 132-151.
- Moos, R.H. (1976). *The Human Context: Environmental Determinants of Behavior*. N.Y., London, Sydney, Toronto: John Wiley & Sons.
- National Curriculum. (1996). *Eesti põhi- ja keskkooli riiklik õppekava*. [The National Curriculum for basic and secondary education]. Riigi Teataja. 1996. No 65–69.
- Nonaka, I. (1991). The Knowledge Creating Company. *Harvard Business Review*, 9, 96-104.
- Nonaka, I., & Takeuchi, H. (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. New York: Oxford University Press.
- Pallas, L. (2008). Kooli õpikeskkond ja õpilaste toimetulek. Ankeet õpetajale. Tabelid. [School as learning environment and pupils' coping. Teacher survey. Tables.]. In E-S. Sarv (Ed.), *Õpetaja ja kool õpilase arengu toetajana. Õpetaja enesest ja koolist* [Teacher and school as supporters of

- pupil development. Teacher on her/himself and on school] (CD). Tallinn: Tallinna Ülikooli kirjastus.
- Pedler, M., Burgoyne, J., & Boydell, T. (1991). *The Learning Company: A Strategy for Sustainable Development*. New York: McGraw-Hill.
- Raagmaa, G., & Terk, E. (Eds.). (1997). *Eesti tulevikutsenaariumid: üleriigiline territoriaalmajanduslik planeering 'Eesti 2010'* [Estonia futures scenario 'Estonia 2010': nationwide economic-territorial planning]. Tallinn, Tartu: Eesti Vabariigi Keskkonnaministeerium, Eesti Tuleviku-uuringute Instituut.
- Ruus, V-R., Sarv, E-S., & Pallas, L. (2007). *Relationships Between Schools' Organisational Climate and the Students' Condition at School*. Paper presented at the European Conference on Educational Research (ECER), Gent, Belgium.
- Ruus, V-R., Veisson, M., Leino, M., Ots, L., Pallas, L., Sarv, E-S., & Veisson, A. (2007). Students' well-being, coping, academic success, and school climate. *Social Behavior and Personality*, 35(7), 919–936.
- Ruus, V-R., Veisson, M., Leino, M., Ots, L., Pallas, L., Sarv, E-S., & Veisson, A. (2007). Õpilaste edukus, toimetulek ja heaolu koolis. [Pupils' success, coping and wellbeing in the school]. In M. Veisson, V-R. Ruus, & T. Kuurme (Eds.), *Eesti kool 21. sajandi algul: kool kui arengukeskkond ja õpilaste toimetulek* [Estonian schools at the beginning of the 21st century: school as developmental environment and pupils' coping] (pp. 17-58). Tallinn: Tallinna Ülikooli kirjastus.
- Sarv, E-S. (2002). On Structure, Content and Typology of School Development Plans in Estonia. In S. Priimägi & E-S. Sarv (Eds.), *The Opening World: Changing Educational Environment and Teacher Training* (78-105). Tallinn: Tallinn Pedagogical University.
- Sarv, E-S. (2008). *Õpetaja ja kool õpilase arengu toetajana. Õpetaja enesest ja koolist* [Teacher and school as supporters of pupil development. Teacher about her/himself and about school]. Tallinn: Tallinna Ülikool.
- Sarv, E-S. (2000). Õppimine eesti õpetajate ja üliõpilaste arusaamas 1999. a. ja õppekava. [Learning in the understandings of Estonian teachers and pupils in 1999 and the curriculum.]. In H. Heinla (Ed.), *Haridus ja sotsiaalne tegelikkus* [Education and social reality]. Tartu: Tartu Ülikooli Kirjastus, 193-205.
- Sarv, E-S. (2001). The “Condition of Postmodernism” and Changes in Estonian Education 1987–1997. In A. Liimets (Ed.), *Integration und Integrativität als Probleme in der Erziehungswissenschaft* (pp. 135-152). Berlin, Wien, New York: Peter Lang.
- Sarv, E-S. (2013). Koolikultuur, koolikliima. [School culture, school climate]. In R. Mikser (Ed.), *Eesti haridusleksikon* [Estonian educational lexicon] (pp. 151–157). Tallinn: Eesti Keele Sihtasutus.
- Sarv, E-S. (2020a). *Koolikultuurist, koolikliimast ja õpetajast: vastamute tajutud koroonaperioodi kaugõppe kogemus*. [About school culture, school climate and teacher: respondents' perceived experience distance learning during the corona crisis]. (Manuscript, at the author's disposal.)
- Sarv, E-S. (2020b). Estonian School Culture – Endeavor for Learning Organisation. In I. Kesture, E-S Sarv, & I. Stonkuvieni (Eds.), *Pedagogy and Educational Sciences in The Post-Soviet Baltic States, 1990–2004: Changes and Challenges* (pp. 196- 212). Riga, Univeristy of Latvia. <https://doi.org/10.22364/bahp-pes.1990-2004.12>
- Sarv, E-S., Leino, M., Ots, L., & Pallas, L. (2008). Teacher's Views of Students in Estonian Schools. *The International Journal of Learning*, 15(9), 169-182.
- Senge, P. (1990). *The Fifth Discipline. The Art and Practice of the Learning Organization*. New York: Doubleday.
- Senge, P., Cambron-McCabe, N., Lucas, T., Smith, B., Dutton, J., & Kleiner, A. (2001). *Schools that Learn*. London: Nicholas Brealey Publishing.
- Shell International BV. (2008). *Scenarios: An Explorer's Guide*. Retrieved August 15, 2019, from <http://s05.static-shell.com/content/dam/shell/static/future-energy/downloads/shell-scenarios/shell-scenarios-explorersguide.pdf>

- SHELL. (n.d.). *Global scenarios 2025*. Retrieved January 12, 2008, from http://www.shell.com/home/content/aboutshell-en/our_strategy/shell_global_scenarios/previous_scenarios/previous_scenarios_30102006.html
- Skinner, E.A., & Wellborn, J.G. (1997). Children's Coping in the Academic Domain. In S. Wolchik & I. Sandler (Eds.), *Handbook of Children's Coping: Linking Theory and Intervention* (pp. 387-422). New York: Plenum Press.
- Usher, R., & Edwards, R. (1994). *Postmodernism and Education*. London: Routledge.
- Veisson, M., Leino, M., Ots, L., Ruus, V-R., & Sarv, E-S. (2004). *Academic Coping of Students*. Paper presented at the European Conference on Educational Research (ECER), Crete, Greece. Retrieved January 15, 2020, from <http://www.leeds.ac.uk/educol/documents/00003895.htm>
- Veisson, M., Ruus, V-R., & Kuurme T. (Eds.). (2007). *Eesti kool 21. sajandi algul: kool kui arengukeskkond ja õpilaste toimetulek*. [Estonian school at the beginning of the 21st century: School as developmental environment and pupils' coping]. Tallinn: Tallinna Ülikooli kirjastus.
- Vilu, R., & Sarv, E-S. (1996). Kool ja infoühiskonna haridusfilosoofia. [School and the philosophy of information society]. In S. Maanso (Ed.), *Eesti haridusvalikud XXI sajandi lävel: EHF 1.-3. november 1996: ettekannete ja sõnavõttude kogumik* [Estonia – educational choices at the beginning of 21st century: EEF 1-3 November 1996, presentations] (pp. 56-68). Tallinn: Eesti Haridusfoorum.