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Reaching for a new culture of learning in schools – District-level work on the curriculum reform in Finland

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Abstract
The study explores Finnish district level developers' shared sense-making on how the aims of the core curriculum are translated into school level development work in terms of learning culture. In this study, the concept of learning culture combines two perspectives: the positive qualities that promote learning in school, and the neutral aspects that comprise the learning culture. To achieve sustainable change, it is necessary that the developers have a shared understanding of the focus of their work. The data included 12 group interviews from district level steering groups around Finland during the recent national curriculum reform. The results showed that the steering groups viewed the curriculum to require a holistic, agile, inclusive and collaborative learning culture. They identified the need to change five aspects of the learning culture: teachers' pedagogical thinking and practices, learning content, learning environment, pupils' agency and school organization. They emphasized the idea of holistic learning content forcing teachers to change their pedagogical practices towards more agile, inclusive and collaborative. The demands on teachers were high and sometimes contradictory.

Keywords: Basic education; Curriculum reform; Learning culture; Shared sense-making, Systemic change

Introduction

A culture of learning has a profound effect in schools, both on teachers' and students' learning and also on their well-being (Sabah & Orthner, 2007; Deal and Peterson, 2016; Schoen and Teddlie, 2008). A school's learning culture is constructed in the everyday practices of the school community, and it includes values, understandings, routines and norms about learning in school (Coburn, 2004). It is embedded in the larger societal and institutional context of the school system and the local environment, interacting with and being influenced by these (Hodkinson, Biesta and James, 2007). The school curriculum is a central means for steering, controlling and changing the educational reality in schools. It

provides the normative base for the different aspects of the learning culture. It is a mediator of culture and values (e.g. Lawton, 1973; Saylor, Alexander amd Lewis, 1981), but also a means to change and develop the learning culture (Awkward, 2016; Gano-Phillips and Barnett, 2010).

National curriculum reforms are tools of educational change, affected by transnational, national and local policies and trends (Adolfsson and Alvunger, 2017). Changing the learning culture is often mentioned as a specified aim of the curriculum reform in order to achieve enduring and effective change in school, instead of changing the structure, practice or singular actions (Fullan, 2005; Sarason, 1971; Hargreaves, 1994; van Houtte, 2005; Schoen and Teddlie, 2008; Maehr and Midgley, 1996). However, the relation between the aims of the curriculum reform and developing a school's learning culture is not always straightforward or explicit. Moreover, the culture of learning and curriculum development influence each other in both ways, with the culture of learning being both the prerequisite for change as well as its end result (Chen, Wang and Neo, 2015).

The process of translating the big ideas of the curriculum into learning goals and pedagogical practices in school is complex and often imperceptible, even for the actors participating in it. What actually comes true in the classroom is dependent on the understanding that the key actors construct about the aims of the reform and their consequences for teaching and learning in school. The sense-making about the focus of the change efforts is especially relevant in decentralized school systems that emphasize trust in schools and teacher autonomy. In Finland, developing a learning culture was set as a core goal of a recent curriculum reform (Finnish National Board of Education [FNBE], 2014). The reform process aimed at ownership and active participation of actors in different levels in balancing between *what* and *how*, re-negotiating the contents and learning objectives, and discussing how good quality learning takes place in schools (Pyhältö, Pietarinen & Soini, 2018; Salonen-Hakomäki, Soini, Pietarinen & Pyhältö, 2016. This creates a complexity that, in turn, puts a lot of pressure on the sense-making among the actors in the process. Therefore, it is essential to study not just the content and goals of curriculum reforms but also how they are understood and translated into the development of a learning culture by the key actors in the field.

In Finland, district-level actors are highly significant and influential in the curriculum process (Mølstad, 2015; FNBE, 2014). Yet, little is known about how they perceive curriculum reforms to affect the learning culture. In this study, we explore district-level curriculum reform steering groups' shared sense-making about the aims and goals of the large-scale curriculum reform in terms of developing a learning culture in schools. We aim to find out how they understand the direction of change that the new core curriculum brings to the culture of learning in schools, and what aspects should be changed to reach the aims.

Curriculum reform in Finland

The Finnish national core curriculum sets the general goals, core contents, principles and guidelines for basic education. It provides grounding for the district-level curriculum development work, which is typically orchestrated by steering groups consisting of municipal actors and educational practitioners from

the schools. The process can be described as a top-down, bottom-up strategy (Tikkanen, Pyhältö, Soini & Pietarinen, 2017), which combines administrative initiative and active participation of stakeholders on all levels (Ramberg, 2014). The national core curriculum is renewed in Finland approximately every ten years, the most recent taking effect in 2016.

The Finnish system is relatively decentralized and local authorities have substantial freedom and responsibility to build their own curriculum according to the state guidelines (Mølstad, 2015). Teachers and schools are highly autonomous in their pedagogical solutions, and accountability is interpreted through responsibility and trust in the educational practitioners (Sahlberg, 2015; Simola, Rinne, Varjo, Pitkänen & Kauko, 2009). For example, Finland has not adopted the idea of standardized testing, but relies on teachers' professionalism in assessment. Teachers and principals are also prominent actors in school development work and have participated in the curriculum reform in both the national and district levels.

The aims of the recent reform were mostly consistent with international trends and educational ideas (OECD, 2009, 2018). Although Finnish students' performance scores in international comparisons have declined since 2006 (OECD, 2016), performance was still not among the triggers and aims for the reform on a national level. Instead, there was a shared understanding that the reform should, for example, react to the traditional teacher- and text book-oriented approach to learning (Salonen-Hakomäki et al., 2016). The national core curriculum emphasizes the importance of schools' learning culture and explicitly states that the culture can be developed and changed. The core curriculum builds on such values as uniqueness of each pupil and equal right to a good education; humanity and democracy; cultural diversity as a richness; and a sustainable way of living. However, discussing values is also required from the school administration districts, and finally values should be reflected in schools' learning cultures. The core curriculum emphasizes pupils' active role in their learning and outlines that learning environments should be varying, adaptive and safe. Collaboration and well-being should guide school development. Besides the educational principles, the Finnish core curriculum describes specific objectives of instruction and key content areas in subjects (FNBE, 2014). One of the greatest challenges of the development work is trying to match these, at times contradictory, approaches together (Kivioja, Soini, Pietarinen & Pyhältö, 2018; Salonen-Hakomäki et al., 2016; Soini, Pietarinen & Pyhältö, 2017).

Developing the culture of learning through curriculum reform

A school's learning culture refers to a very wide range of different aspects that affect learning in school (Heo, Leppisaari and Lee, 2018). In organizational research, culture is often defined as an enduring independent phenomenon consisting of values, beliefs, and assumptions shared by organizational members (Seashore Louis, 2006; Schein, 1992). In schools, learning culture can be perceived as an entity of interrelated levels of individual, local and institutional learning, ranging from the micro level of complex relationships, actions and interactions between students and teachers, through the meta level of learning sites and subject content, to the macro level of management and organizational

structures of the educational institution, as well as wider social, political and economic contexts (Hodkinson et al., 2007; see also Hodkinson and James 2003; Schoen & Teddlie, 2008).

A culture of learning contains the implicit interpretations concerning learning, such as attitudes, values, beliefs and expectations about how learning happens, what is expected from interaction, and what is successful learning (Jin & Cortazzi, 2006). These can be observed from different perspectives from student learning outcomes and teachers' pedagogical practices to the philosophy and values of the whole school (Chen et al., 2015). Accordingly, learning culture may be observed through a systemic approach, viewing layers of the system and interaction between them as fields of force, where people and practices are relationally positioned and in relationship to each other, causing mutual dependency and a domino effect if something is changed (Hodkinson et al., 2007; Fullan, 2003; Priestley, Miller, Barrett and Wallace, 2011). Pedagogical practices adopted by teachers depend upon the interrelationships between different aspects of the culture (Hodkinson and James, 2003), for example, it has been shown that collaborative culture increases staff commitment and mutual respect between teachers and school leaders (Law, 1999). This is further reflected in students' positive school experience, affecting their well-being and achievement (Opdenakker and van Damme, 2000; Weiner and Higgins, 2017).

The learning culture approach can be used to neutrally describe and analyze the cultural features. On the other hand, it is often taking a stand and implying the positive qualities of a culture that promotes learning. It may refer to specific conditions that emphasize learning or point to the direction in which learning culture should be developed (Weeks, 2012; Senge et al., 2000). Thomas and Brown (2011), for example, write about a new culture of learning that is personally meaningful, based on play, questioning and imagination, and is made possible by the access to information that modern technology provides. Bonk (2009) claims that the new culture of learning is that of participation and personalization, referring to the perspectives of ourselves as learners and to what it means to participate in the learning process. The learner-centered approach is often referred to as a feature of a good quality learning culture (Schoen & Teddlie, 2008; Watson and Watson, 2011).

The learning culture in school is created in its everyday practices, within a certain framework, with affordances and restrictions. It is made up of cognitive understandings, norms and routines that are a result of the community's learning process (Berger and Luckmann, 1966; Coburn, 2004). Meaningful and sustainable changes in the culture are possible when the new values and behaviors can be learned in the everyday contexts with others (DuFour & Fullan, 2013; Hodkinson et al., 2007). The culture of learning emerges from the interaction between participants involved in learning experiences. This implies that the quality of interaction is essential in building the culture of learning, and that purposeful interaction between principals, teachers, parents and other stakeholders changes their mindsets and thus slowly creates the new culture of learning (Coburn, 2004; Weeks, 2012).

Different aspects of culture are connected, and when something is changed, it affects the other parts as well (Hodkinson et al., 2007). These complex effects can be counterproductive, if attention is not paid to the

interrelatedness of the parts of the system: for example if the changes in the structures of school organization are made without thinking about the consequences to pedagogy. Cultural changes are slow and complex, as they happen through the different influences and interactions between different aspects of the learning culture (Hodkinson et al., 2007). Moreover, changes in a school's institutional environment may be intentionally buffered at the classroom level to avoid the penetration of unwanted pressures (Coburn, 2004; Meyer and Rowan, 1977). Prior research shows that in aiming for change in learning culture, all sources of school culture should be taken into account, as all its dimensions overlap and are complementary. For example, teachers' collaboration, that is often set as the basis for cultural change, does not happen in a vacuum but requires structures, resources and strategies at the organizational, community and individual level (Pyhältö, Pietarinen & Soini, 2015). Learning culture may be viewed as the prerequisite for change, the way of changing, and the desired outcome (Chen et al., 2015). The understanding that the curriculum developers have about the learning culture they are striving to build is central to the success of the reform. Learning in change processes requires shared sense-making about goals as well as about the changes and the processes needed (Pyhältö et al., 2018).

Shared sense-making on the district-level

It is not self-evident that curriculum developers have a shared understanding of the culture of learning. They come to understand new ideas through the lens of their preexisting knowledge and practices, and their core task is to help school communities interpret, adapt, or transform reform goals in a process that is influenced by the social and structural conditions of local context and school (Coburn, 2001, 2004, 2005; Spillane, Diamond et al., 2002; Spillane, Reiser and Reimer, 2002). Shared sense-making is needed in order to ensure that the meanings are shared, to determine the focus areas for development and to build ownership of the change, thus promoting sustainable change (Gawlik, 2015; März and Kelchtermans, 2013; Soini et al., 2017; Pietarinen, Pyhältö & Soini, 2017). At district-level, the developers face the vast aims of the core curriculum, as well as the everyday practices of the schools, and their position in the middle is crucial for the sense-making efforts in schools (Berends, Bodilly and Kirby, 2002; Spillane, Diamond et al., 2002; Spillane, Reiser et al., 2002; Boone, 2014; Nordholm, 2016; Soini et al., 2017).

The links between the policies and strategies enacted by reform coordinators at the district-level have been a growing research interest in recent decades (Fullan and Quinn, 2016; Hightower, Knapp, Marsh and McLaughlin, 2002; Mølstad, 2015). The focus of the research has shifted from effective implementation (Cuban, 2013) and characteristics of successful districts (Murphy & Hallinger, 1988) toward complex and context-dependent development processes requiring shared sense-making at the district-level (Boone, 2014). We know surprisingly little about how often rather abstract ideals and aims evolve across the different levels in the system and turn into more specific objects of educational development, and about the districts' role in the middle. It has been suggested that active and shared sense-making in terms of the goals of the

reform is a key strategy for promoting sustainable change (e.g. Gawlik, 2015) and for avoiding decoupling of the reform goals from what actually happens in classrooms (Coburn, 2004). Shared sense-making refers to constructing collective understanding of the meaning of reform, and its significance and implications, through dialog and negotiation (März & Kelchtermans, 2013; Pietarinen, Pyhältö & Soini, 2016).

However, shared sense-making of the aims and goals requires continuous effort not just to make sense of the goals but also to take prior understandings, routines, practices and norms: the building blocks of learning culture, under consideration (Soini et al., 2017). Shared sense-making requires placing the reform in the continuum of school development, connecting prior understanding to the suggested changes and interpreting the demands of the core curriculum in the context (Coburn, 2005; Pietarinen et al., 2017; Pyhältö et al., 2018). These strategies pave the way for transformation, facilitating learning and creating meaningful and sustained change in the schools' learning culture (Carroll, 2015; Soini et al., 2017; Pyhältö et al., 2018). In the end, the result of this sense-making process cannot be controlled beforehand, and the principles and general goals stated in the core curriculum and the way the ideas are finally implemented might differ greatly.

Aim of the study

This study aims to gain a better understanding of curriculum reform as a tool for developing the schools' learning culture by exploring the district-level steering groups' shared sense-making in the beginning of the local curriculum process. We aim to find out how they transform the big ideas of core curriculum into the objects of developing schools' learning culture; what they see as the core changes in terms of the culture of learning, considering the two ways to interpret it as aspects to be changed and desired qualities that these aspects should be directed toward. The following research questions are addressed:

According to the district-level steering groups:

1) What kind of learning culture is suggested by the curriculum reform?
    a. In what direction should the change happen?
    b. Which aspects of the learning culture need to be changed?

Method

Participants

Data for this study was collected with group interviews from steering groups consisting of educational stakeholders coordinating the curriculum process at the district-level. Twelve cases around Finland were selected based on variation and representativeness in terms of size, location in the country and urbanity level. The way of carrying out the local curriculum process at the district-level also varied between the selected municipalities, from a self-contained structure within the municipality to collaboration with neighboring municipalities to orchestrate and carry out the curriculum process provincially. The final sample consisted of the 12 selected municipalities accompanied by the collaborating municipalities involved in the district-level curriculum work, encompassing about 17 % of

Finnish municipalities in 2015 (n= 54/320). The final sample represented adequately different types of municipalities and variation of carrying out the district-level curriculum process in Finland.

The sample was representative in terms of educational stakeholders working in the local school system. Steering groups consisted of chief education officers, educational administrators, principals, primary and secondary school teachers, special education teachers, early childhood educators and youth workers, with differing emphases. The size of the groups varied from three to 20 stakeholders, and they had different histories, as some groups had worked together before and some were assembled just for this reform. All the groups were at the beginning of their local curriculum process, and were starting to interpret the core curriculum document. The Finnish National Board of Education (nowadays called the Finnish National Agency for Education) had provided electronic support materials and organized training and information events, in which many of the steering group members had participated. The framework and timetable were nationally set, and the tasks given to the local groups were strategic leadership and decision-making on the local curriculum, and organization, resourcing, monitoring and development of local efforts (FNBE, 2015).

Data collection

Semi-structured group interviews were conducted in spring 2015. The interviews covered 20 questions in three wide themes: 1*) large-scale curriculum reform and school development*, 2) *organizing and implementing the local curriculum process*, and 3) *ownership and agency in terms of ongoing curriculum reform* (Soini et al., 2017). The group interview protocol aimed at gaining a broad view on orchestrating the local curriculum process on the basis of the national core curriculum renewal, especially in the context of large-scale school reform. The interview protocol was validated by the members of the research group before the interviews.

The data was collected by two senior researchers during their visits in steering group meetings. All members of the steering groups were invited for the group interview and participation was voluntary. They were informed about the study and their rights before the interview. Everybody was willing to participate, and the reflective discussions were often seen as useful for their ongoing local curriculum work. Each interview lasted between 60 and 90 minutes. The interviews were recorded digitally and decoded into text files.

Analysis

The group interviews were content analyzed with the help of the ATLAS.ti program using inductive and abductive strategies (Timmermans and Tavory, 2012). The interviews (N=12) were read through carefully several times to obtain an overall understanding and become familiar with the data. After this initial phase, we coded all interview excerpts where the steering groups spoke about the goals of the reform and the desired qualities of the new culture of learning, manifested by e.g. how the future school looked, what characterized learning,

and in what direction the change would happen. These were categorized according to the data as four (4) *qualities*:

1) *holistic*, referring to more comprehensive understanding of the learning environment, integrating different areas of learning and teaching, avoiding strict borders and divisions between subjects and teachers' responsibilities;
2) *agile*, including creative, adaptable and mobile solutions for learning, negotiating contradictory demands, a proactive attitude toward constant development of the different aspects of the learning culture, challenges and opportunities of the new technology;
3) *inclusive*, referring to everybody being actively involved in learning, participation and the sense of community, teachers focusing on pupils' learning and well-being;
4) *collaborative*, referring to learning together, collaboration as a strategy for building the new learning culture, happening between all actors involved in schools: pupils, teachers, school leaders, partners.

In the next phase, all the excerpts were carefully read to determine which aspect of the learning culture the development was aimed at, with categories adapted from Hodkinson et al. (2007) and Schoen and Teddlie's (2008) dimensions of culture as five (5) *aspects of learning culture*:

1) *teachers' pedagogical thinking and practices*, referring to the professional lives of the teachers and what is expected from them, including e.g. their roles, ways of working, assessment of learning, attitude to pupils;
2) *learning content*, referring to the object of learning, how is learning content organized, what is meaningful learning and how to achieve that;
3) *learning environment*, entailing descriptions about the settings where learning happens, including classrooms, other spaces in and outside school, and digital environments, both their physical and other characteristics, and how to support learning in different environments;
4) *pupils' agency*, referring to the pupils' role in the school, their active membership in the school community, expectations toward them taking more responsibility for their learning;
5) *school organization*, including descriptions about essential changes needed in structures and practices, the responsibilities of school leaders and their role in enabling the change and inviting everybody to participate.

Each excerpt had one code for quality and one for an aspect of learning culture. Finally, the qualities were explored in connection to the aspects of the culture, in order to understand the steering groups' ideas about what should be changed in order to reach the desired qualities of the new culture of learning.

Results

The district-level curriculum steering groups identified four qualities of the new culture of learning, pointing the direction of change. The qualities included *holistic, agile, inclusive* and *collaborative* features of the culture. The different qualities were relatively evenly represented in the data, although *holistic* was the

one mentioned most frequently (69/220). Steering groups also identified five aspects of the learning culture that appeared to be the objects of development that needed to change toward the previously specified qualities. The aspects of learning culture included *teachers' pedagogical thinking and practices, learning content, learning environment, pupils' agency* and *school organization. Teachers' pedagogical thinking and practices* were seen as the most important aspect to change, resulting in 74 mentions out of 220. Learning content was the second most mentioned aspect (62/220), leaving the other categories with clearly fewer mentions. Holistic learning content was also the combination that appeared most (44/220), followed by teachers' agile (23/220) and collaborative (20/220) pedagogical thinking and practices, pupils' inclusive agency (19/220) and agile learning environment (18/220) (Table 1). It is noteworthy how teachers' pedagogical thinking and practices were connected to many different desired qualities, whereas the other aspects seemed to emphasize specific qualities.

Table 1. *Qualities and aspects of the new learning culture*

Aspects	**Qualities**				
	Holistic	Agile	Inclusive	Collaborative	Total
Teachers' pedagogical thinking and practices	16	23	15	20	74
Learning content	44	6	9	5	62
Learning environment	9	18	5	3	35
Pupils' agency			19	6	25
School organization		7	6	9	24
Total	**69**	**54**	**54**	**43**	**220**

Holistic view on learning and teaching

The steering groups viewed a holistic approach as a new way of promoting meaningful learning in school and hence holism as a central feature of the culture of learning. The steering groups most often discussed holism in terms of learning content and objectives of learning. They interpreted that the new core curriculum challenged the traditional views on what it was important to teach, concentrating on competences instead of content. In their view this meant that pupils should learn to understand causal relationships and think critically. Instead of rote learning, they should learn to use the materials and understand how to apply theoretical ideas.

> We used to approach the subject teaching through the content, and now we approach it through the skills, what skills does the pupil learn, what skills should be learned in this subject in this grade and which transversal competences are they connected to. [Case 2]

The holistic learning content that steering group members described ranged from life skills, such as self-esteem, initiative and respecting others, to taking care of one's own well-being and health, which was further perceived as facilitating the joy of learning among pupils. Pupils' personal interests and

potential were seen as important to take into account in teaching, and teachers' pedagogical thinking should be based on a more holistic view of their pupils' lives. In the steering groups' view, this meant that more attention should be paid to the ways of working instead of to content.

According to the steering groups, another big change toward more holistic learning culture in terms of learning content was the integration of different subjects, and organizing learning around phenomena rather than subjects. This was seen to require, for example, totally new learning materials, as the traditional text books are based on the subjects. The steering groups were positive about reducing subject knowledge, which would provide more time to concentrate and hence decrease feelings of haste during school days.

The steering groups noted that the holistic learning content placed new requirements on teachers. Teaching abstract competences, or thematic entities based on phenomena instead of subjects, required a more holistic approach from teachers. Still, the steering groups noted the paradox between the distribution of lesson hours and expectations for teachers: lessons were still distributed by subjects, but teachers were expected to concentrate on holistic teaching.

Teachers should also use the curriculum in a more holistic way, as one steering group member says:

> We should think in a way that how the users of the curriculum should change, so that the curriculum is not perceived as such a tool where you can check whether it was third or fourth grade when the pupils should learn to walk on their hands, but that they could kind of read between the lines to get the big picture and be able to combine the parts. [Case 4]

In the steering groups' view, holism as a quality of learning culture in terms of learning environment referred to the idea that learning occurs anywhere and all the time. They pointed out that schools should recognize and better utilize the learning that happens outside school. For example, many possibilities for learning were seen in the neighboring society. This implied that the school's learning culture should include its surroundings. The steering groups also called for the removal of the obstacles to collaboration between classes and subjects in schools, and the building of the whole school environment to support learning.

Agility as a desired feature of learning culture

The steering group members described agility as a desired quality of learning culture, especially in terms of teachers' pedagogical thinking and practices. In future schools, the steering groups saw that teachers would face many expectations, and they perceived adopting agile pedagogical practices as necessary in order to cope with sometimes contradictory demands. One such confrontation they identified was between a holistic approach to the learning content and the need to assess pupils in different subjects. Moreover, the steering group members noted that the goal of continuous assessment, concentrating on the pupils' development and providing possibilities other than final tests to prove their skills, required teachers to create new, more flexible ways for assessing pupils' performance. This was seen to contribute to a learning culture that supported the well-being of pupils.

> The assessment (…) has to be revised a bit, if not a lot, to the direction of reflecting the process, so that it opens the learning event to the pupil in a way that it becomes enjoyable. [Case 5]

Steering groups perceived the agile learning culture to require the courage to experiment and tolerate uncertainty; agile teachers had to trust themselves as developers of learning culture and understand that the curriculum requires constant development even after its official launch. Furthermore, the steering groups expected agility in planning the teaching: the teachers should be able to change their plans and allow room for the pupils' ideas. On the other hand, pupils' different needs were seen to require agile planning of more personalized learning activities in order to ensure learning.

> It is necessary to react to the needs of these pupils, and we have to plan more personalized learning paths and take into account different special needs, and not only related to pupil welfare but also the gifted pupils, there is still lots to do with that. [Case 11]

Agile learning environments were seen as essential in the new learning culture. The steering groups called for a more creative use of different spaces in schools and new ideas on how the school could look. They saw that the timetable should be open to changes according to circumstances. The steering groups admitted that school buildings often prevented the agile use of space, for example because of narrow corridors or an inflexible layout. One steering group member shared a successful experience:

> Our pupils wanted to tell what they want to have here, and they wanted tables and chairs in the school corridors, and there are very old such, very old tables and chairs around them, and already those have brought about the change that we are not only in the classroom. [Case 4]

The steering groups also recognized the need for agility in terms of learning content, as many new ideas, such as the interdisciplinary learning modules, might not work out instantly. In such a situation, they found it important to react in an agile way, adjusting the content rather than starting again from scratch. The steering group members also stressed the importance of an agile attitude toward facts, noting the changing nature of knowledge. Critical thinking toward media, for example, was seen as crucial when determining where to trust.

Agility of school organization was considered as a feature of the new learning culture, most prominently in the continuous development of the new curriculum. The steering groups saw that the curriculum was a living document and that it should be constantly reviewed. Schools were seen as responsible in that way, as they could follow the changes in society and adapt to them faster than the national curriculum process. The steering groups also placed high expectations on principals, who were expected to pay attention to the individual characteristics of their schools and provide teachers with scheduled but unstructured time to develop ideas further together.

The steering group members mentioned new technology as related to several aspects of the learning culture. They recognized the problem that even though schools are equipped with the latest technology, teachers need to be capable of utilizing it better. Thus, agile pedagogical practices were seen as essential, when taking into account the fact that pupils are often more skilled than

teachers in using this new technology. In terms of learning environment, the steering groups perceived that digital technologies enabled the overcoming of the limits of time and space, providing opportunities to arrange schoolwork and combine different subjects in an agile way. Moreover, the steering group members also noted that older devices could and should be used in a meaningful way, and that the focus should be on interaction, not on the technology itself. As for learning materials, the steering groups aimed to use different materials in an agile way. The following dialog illustrates how the new materials challenged the teachers:

> - Likely the incompleteness of the e-material gives teachers an opportunity to develop their teaching.
> - It forces them to do it. [Case 9]

Inclusive culture of learning

The steering groups connected inclusiveness to each of the five aspects of the learning culture. Most of all, the steering groups were set upon promoting pupils' inclusive agency, placing the pupil in the center of the new learning culture. They emphasized that pupils should be actively included in their learning process, from planning all the way to assessing the learning. This, they saw, could increase motivation and promote better learning outcomes by increasing well-being; learning should be a pleasant activity. Along with the more active role, pupils were expected to take responsibility for their learning, as this steering group member said:

> There is a need to create and strengthen the pupils' own agency in their learning, as in the future we are even more in a situation that the teacher cannot just take a jug and pour the wisdom into the child, but that they would also realize that their own choices, their own activity or inactivity have the consequences, not that the teacher sucks or something else. [Case 3]

Besides pupils' agency, another strong idea among the steering groups was to change the way the teachers think about the pupils: the focus should be on how best to support pupils' learning. The steering groups saw growing demands for teachers to adapt their teaching according to the prevailing conditions of the group and the individual pupils, and to acknowledge pupils' different needs by enabling them to learn at their own pace. Steering groups described the teachers' new role rather as guiding the pupils' active learning processes. Pupils were also seen as a source of learning for the teachers.

> This curriculum process enables the shift from teaching to guiding and supervising the learning, and that's what today's youth are downright demanding. As with the ICT things, we are still far behind the skill level of these kids, and in order to serve them well we have to somehow guide the learning and be aware of these processes, how to guide and where. [Case 11]

The steering groups saw that inclusive learning content provides every pupil an opportunity to find their own potential and reach their personal learning outcomes, with more attention to well-being. The steering groups referred to participation both as an inclusive activity and as learning content. For example, when designing multidisciplinary learning modules, pupils were expected to be included in deciding which topics to concentrate on. Besides school, inclusive

learning content was seen to support the pupils' membership in society and survival in today's world.

School organization plays a role in promoting inclusiveness in learning culture, according to the steering groups. They remarked that school has the responsibility to ensure that all pupils get what they are entitled to, for example ICT technology in teaching, which was expected to cause some dispute among the teachers. The steering groups noted the importance of an inclusive school community, where everybody has their say in school matters; this requires leadership that embraces the community and creates the necessary structures for participation and dialog.

> If we think that the school should change, then everybody, the whole school community needs to participate in changing it, there must be dialog between pupils, teachers and parents, the other staff members, even youth workers should be included, so that the school community talks about what's happening there. [Case 6]

The steering groups also noted that the learning environment should include everybody and encourage pupils to participate. The sense of community should be created in classes, within schools, and it should also reach beyond the school walls. This was seen to affect the pupils' well-being and to make schoolwork pleasant for everybody. The steering groups stressed that everybody should feel safe in an inclusive learning environment.

Collaboration in creating a new learning culture

The steering groups emphasized collaboration as the main strategy for creating a new kind of learning culture, most prominently its aspect of teachers' pedagogical thinking and practices. Making sense of collaboration in terms of teachers brought up the question of teacher autonomy, which has been a central part of Finnish teachers' identity. There was an evident struggle to reinterpret the meaning of autonomous teachers in the light of the new curriculum from that of isolated experts who should be given time to develop their pedagogical practices in peace, toward collaborative peers in the professional community who need opportunities to develop shared pedagogical practices together.

> I think this curriculum should show that actually, in the future we won't accept that I could alone be responsible for very big issues, it's well so that the community must be included. [Case 4]

More collaboration was also seen as the strategy for achieving a more holistic learning culture. The steering groups anticipated a learning culture where teachers took responsibility for pupils together. In particular, teaching in upper grades which is strictly subject-based was seen as problematic, and the steering groups believed that more collaboration between subject teachers would be essential, for example in the form of project weeks or co-teaching.

The steering groups recognized that school organization and structures that facilitated collaboration were the prerequisite for a collaborative learning culture, as well as part of it. For example, time was seen as a scarce resource and scheduled time for collaboration was seen as essential for development. The steering groups noted the important role of leadership, with principals enabling collaboration in leading pedagogical discussions in schools, making yearly plans

together with teachers in the teacher meetings, and making suggestions for co-teaching. Steering groups considered successful collaborative leadership to require dialog and trust. They also pointed out that by adopting the collaborative culture, the principal could lead by example and invite teachers to join in the collaboration and create a professional learning community, ideally acting with the pupils in the same manner.

The steering groups also considered collaboration as a central quality of the learning culture among pupils. They expected the pupils to engage in collaborative learning, learning from each other while working together. The steering groups also expected this to challenge learning culture, for example the meaning of "working in peace" (the Finnish expression "*työrauha*"), which is traditionally understood as pupils concentrating on silent working. Collaborative learning is, however, not silent, but if the pupils are motivated and engaged in learning together, the steering groups expected it to lead to a new definition of what was needed for pupils to concentrate. Collaborative learning was not seen as contradictory to supporting pupils' identity. The steering groups saw that pupils could reach the goals of individual development by working together and taking responsibility for their own contribution.

> Collaboration between the adults and different stakeholders is important, but we have to get pupils working together, now the ideal is that the learning content supports the development of the child's identity and the activities support individuality, so I think that we can reach that goal only by striving to reach a common goal together, everybody has their role in that. [Case 4]

Collaboration was also seen as a learning goal in the new culture of learning, as well as a strategy to provide new learning content, either by collaborating with the civic society or with other municipalities by resourcing and planning more integrated learning themes. Steering groups discussed the fact that there are many partners interested in collaboration, but that collaboration with them should become more systematic. These partners, as well as other school professionals beside teachers, were seen as important resources.

> In order to ensure more integrated learning of skills, I think we need external partners who can bring in the expertise from fields where we don't have education (…) we have a drama club, instructors of special sport skills and arts, as not all the teachers can have all possible skills and knowledge in addition to their own education. [Case 10]

Discussion

In this study, we set out to explore how the actors in district-level curriculum reform make sense of the new Finnish core curriculum in terms of building a new kind of learning culture in schools. The steering groups interpreted the goals of the core curriculum in order to start the local curriculum processes and translate the aims to schools' practices. Based on their shared sense-making, the groups concluded that the direction of change should include four qualities; they considered the core curriculum to require a learning culture that is holistic, agile, inclusive and collaborative. They consider that the core curriculum challenges them to rethink learning culture both widely and profoundly, and identified five aspects of learning culture which need to be reconsidered: teachers' pedagogical

thinking and practices, learning content, learning environment, pupils' agency and school organization.

Overall, the reform is seen as bringing huge changes in schools. Holism is understood as a most desired quality of learning culture and the main direction for the change. District-level actors see holism as an overarching feature of schools' learning culture in the future, and more precisely, they considered holistic learning content to be crucial in order to develop such a culture (see Clark, 2005; Carr, 2007). Defining and organizing content is naturally a central part of the curriculum process and the target of change efforts (see Hodkinson et al., 2007), however, content is not always considered when thinking about learning culture. The steering groups interpret the integration of subjects and transversal learning goals into a holistic learning content as reflecting major changes in epistemology and conception of learning in society. They see that in order to really make changes in schools' learning culture, learning content, and hence the objectives of learning, should be radically changed. These changes reflect the idea of 21st century skills and competences, a variously defined set of wide-ranging skills that can be transferred across different content areas (OECD, 2009; National Research Council, 2012), as well as the aims of the current OECD project Education 2030 (OECD, 2018).

Holism and other qualities of the new learning culture are strongly connected with the teachers' pedagogical thinking and practices. This is in line with the vast research literature on educational change showing that teachers are key actors in school development (e.g. Fullan, 2007; Priestley, Edwards, Priestley & Miller, 2012; van der Heijden, Beijaard, Geldens and Popeijus, 2018). Steering groups anticipate that when teachers face a new kind of learning content it will force them to change their pedagogical practices toward those that are more agile, inclusive and collaborative. District-level actors view curriculum reform as proposing flexibility and agility of teachers' thinking and practices as the main prerequisite for a new learning culture. Moreover, as a result of their sense-making, the radical change in teachers' work proposed in the curriculum has transformed into an expectation of teachers as highly flexible professionals balancing contradictory demands. It seems that great expectations are placed on teachers, and especially as the change in the learning content seems to be leading the change of culture, teachers might find it difficult to maintain their autonomy and enthusiasm. Besides, it can be argued that while teachers' work is becoming more fragmented following the increasing expectations, it might negatively affect the possibility of them providing holistic learning environments. Therefore, for the curriculum process to aim for such significant changes seems to require the creation of professional learning opportunities for teachers. District-level actors emphasize teacher collaboration; however, the teacher community as a community of learners, which is often set as a precondition for cultural development (Seashore Louis, 2006; Lee and Lee, 2018), is not present in district-level sense-making.

An inclusive learning culture appears to be an important feature in schools in the future. However, the concept of inclusion, which is understood as including traditionally separated and disadvantaged groups in common classrooms, was not among the topics discussed. Instead, the steering groups spoke broadly

about everybody's participation in different contexts. It is seen as important that everybody should feel included in the school community and could actively participate in it. This can be seen as a response to the concern about declining school satisfaction and school engagement among Finnish pupils (Haapasalo, Välimaa and Kannas, 2010).

Collaboration and agility are closely related to the learning environment as well. The steering groups want to see the school as an open space for collaboration among the school's professionals and also with partners and stakeholders from outside school. They see these as a resource for pupils' learning. However, wider collaboration also means considering the learning culture more widely, not just as the practices and values of a school, but as something that is built with actors outside school. This may challenge prior understandings, routines and practices of schools' learning culture in new ways. It may also force schools to communicate their goals and rationales behind practices to external collaborators and challenge schools both to open up to criticism and to act as more active agents of change in society.

It is worth considering the role of the curriculum in changing the learning culture. The steering groups agree that the curriculum itself does not change anything. Change needs people who have the motivation, ability and understanding required for it. When the goal is to change all Finnish schools, the amount of people involved grows to huge numbers. Our research concentrates only on the district-level, which has been given significant power, but is not enough to change the educational reality in schools (Mølstad, 2015; Salonen-Hakomäki et al., 2016; Fullan, 2003). It has become clear that shared sense-making takes time and effort, and whether this effort should be channeled rather to schools, where many teachers were not participating in the reform before they had to, can be questioned. Systemic change requires all the levels to change, and for that, all levels, national, district and school, should engage in the sense-making processes (Fullan, 2003).

Furthermore, the interconnectedness of the different aspects of learning culture relates to systemic change (Hodkinson et al., 2007). In particular, as building holistic learning culture is so clearly understood as the aim of the reform, it is necessary to direct the change efforts to all its different aspects. According to this logic, as changing one aspect will have an effect on the interrelated parts, it is better to try to control the change in order to reach a coherent and meaningful result.

Our aim was to explore the district-level steering groups' shared sense-making of the goals of the curriculum reform, and how it was seen to change the culture of learning in schools. However, in order to achieve sustainable change according to systemic change, in the process the district-level should also learn and change. Thus, it would be interesting to compare the work of the districts themselves with the qualities of the learning culture that they called for in schools. For example, the fact that so many of the municipalities we had chosen for the research project were already collaborating with others shows traces of collaborative culture. Besides that, it will be interesting to see how the perceptions of the changes in the learning culture develop in time, as well as finding out whether other groups participating in the reform work have similar ideas of reform goals.

Notes

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