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Shared sense-making in curriculum reform – orchestrating the local curriculum work

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Abstract

This study aims to gain a better understanding of the Finnish national curriculum reform by examining how the educational practitioners, at the district level, orchestrate the shared sense-making concerning the reform work in their school districts. The qualitative focus group data was collected from 12 groups, throughout Finland, that were responsible for orchestrating curriculum reform work, at the district level. Results showed that curriculum reform steering groups recognized the importance of orchestrating shared sense-making. They strived to develop functional, context sensitive and shared strategies for reform implementation across their districts. They employed a range of strategies for managing, navigating and regulating the shared sense-making of the local curriculum work.

Key words: curriculum reform, school development, shared sense-making and focus group

1. Introduction

Success of a curriculum reform is highly dependent on its ability to engage those involved in the reform work in innovative collaborative learning (e.g. Hargreaves & Fink, 2006). The opportunity to engage in such learning is, to a large extent, determined by the way in which the reform work is orchestrated. Prior research on school reform indicates that reform implementation strategies that facilitate educational practitioners' ownership and active participation, integrates bottom-up and top-down initiatives, encourages experimentation and builds curriculum alignment are likely to result in sustainable changes (Ketelaar, Beijaard, Bozhuisen, & Den Bruk, 2012; Murphy, 2013; Petko, Egger, Cantieni & Wespi, 2015; Priestley, Biesta, Philippou & Robinson, 2015). However, there is also evidence that sustainable changes are seldom attained in school reforms, curriculum reforms included (Fullan & Miles, 1992). A reason for this, as suggested in the school reform literature, is that reform implementation seldom manages to engage educational practitioners in shared sense-making, which is considered to be a central precondition for innovative collaborative learning (Gawlik, 2015; Kondakci, Beycioglu, Sincar, & Ugurlu, 2015; Weick, 2005).

The way in which the reform work is orchestrated is dependent on the reform designers' understanding of what are sufficient means for attaining the reform aims, i.e. the theory of changing (e.g. Fullan, 2001; Anderson & Togneri, 2005; Soini, Pietarinen & Pyhältö, 2016). School district level reform designers are considered to play an important intermediary role (Berends, Bodilly & Kirby, 2002; Spillane, Reiser & Reimer, 2002) in translating and orchestrating curriculum development work in schools. Districts are also shown to vary in their approach to reform depending on the reform leader conceptions of the change process (Louis & Miles, 1990). During the last decades, the interest in and focus of research on school reforms has shifted from the effective reform implementation (Cuban, 1984) and characteristics of successful districts (Murphy & Hallinger, 1988) to the complexity of context-dependent reform

implementation in the school districts, and strategies utilized by the reform coordinators (Boone, 2014; Hargreaves, 2011; Hightower et al., 2002; Spillane, 1997). However, we know surprisingly little about how those in charge of orchestrating large-scale reform work, at the school district level, construct their understanding of the means for promoting change among educational practitioners. This study aims to bridge the gap in the curriculum reform literature, by exploring local level curriculum reform steering group members' shared sense-making on how to organize the curriculum work in their school districts, in the context of the national core curriculum reform in Finland. The focus is on analysing the shared sense-making surrounding orchestration of the curriculum reform work and the kinds of strategies utilised in orchestrating the shared sense-making involved in the local curriculum work.

1.1 Finnish National Core Curriculum Reform

The Finnish National Board of Education, an independent governmental agency, is responsible for steering the national core curriculum reform work, approximately every ten years (Finnish National Board of Education, 2016). The new core curriculum strives to promote student participation, collaborative classroom practices and integration across school subjects. It combines subject-based and competence-based learning, by focusing on developing generic competencies in addition to subject contents (Finnish National Board of Education, 2014; Vahtivuori-Hänninen, Halinen, Niemi, Lavonen & Lipponen, 2014). The curriculum reform, and the school system as a whole in Finland are largely based on trust in and recognition of the expertise and autonomy of the educational practitioners at both district and school levels (Sahlberg, 2011).

The core curriculum sets the general goals, which provides the grounds for the district level curriculum development work. The school district level collaboration, in the curriculum reform, is particularly essential in Finland, where, instead of just delivering it to

schools, the curriculum is locally constructed and developed by school districts or municipalities, based on the general goals set by the national core curriculum (e.g. Dale, Engelsen & Karseth, 2011). Local curricula are constructed by the education providers, generally for individual schools or as a joint curriculum in a municipality. District level curriculum reform work is typically orchestrated by steering groups consisting of municipal actors and educational practitioners from the schools (Sahlberg, 2015; Vitikka, Krokfors, & Hurmerinta, 2012). Local curriculum implementation provides autonomy for municipalities and schools, when balancing external and internal change forces, and the alignment and context-sensitivity of the implementation (Goodson, 2003; Mellegård & Pettersen, 2016; Pietarinen, Pyhältö & Soini, 2017; Vitikka et al., 2012).

Accordingly, Finnish curricula reforms present “tri-level reform” (Fullan, 2003), involving state, district and school levels. In this systemic change process school district level stakeholders play a central role in interpreting, integrating and transforming the general goals of the core curriculum and facilitating learning by supporting open communication and collaboration in and between the schools, and by providing teachers with clear expectations, guidance, and support (Porter, Fusarelli & Fusarelli, 2015; Spillane & Thompson, 1997; Spillane, 1996). They also orchestrate the curriculum work in the school districts. The stakeholders, at the district level, are highly autonomous in terms of upholding, resourcing and deciding on the ways of developing the school system that are based on the general goals set by the national core curriculum.

1.2 Orchestration of shared sense-making in curriculum work

Large-scale curriculum reform calls for new collective learning from all of those involved in the reform. Especially in the curriculum reform aiming to develop, not just to deliver curriculum policy, the implementation should be understood as a two-way interaction, shaping

and shaped by the mediators (Dale, Engelsen & Karseth, 2011; Mølstad, 2015; Spillane et al., 2002). This calls for not just individual construction of the reform and finding connections with prior thinking and new understanding, but also processing and framing new information together, and using it to determine future actions and behaviours in a way that is meaningful for those involved (Evans, 2007; Weick, Sutcliffe, & Obstfeld, 2005; Hargreaves, Lieberman, Fullan & Hopkins, 2009). In this study, we refer to the construction of collective understanding of the meaning of reform, its significance and its implications for school practices, through dialogue and negotiation as *shared sense-making* (März & Kelchtermans, 2013; Lutzenberg, Imants, Van Veen & Carpay, 2009; Pietarinen et al, 2017), and hence apply a socio-cognitive approach to exploring policy implementation (Coburn, 2005; Spillane, Reiser, & Reimer, 2002). The approach emphasizes interpreting, adapting, and transforming policy messages in an interactive process that is influenced by participants' cognitive efforts embedded in the social and structural conditions (Coburn, 2001; Spillane, 1999; Spillane & Jennings, 1997).

Shared sense-making, especially for large-scale curriculum reform, entails building bridges between old and new understanding and across the levels of the educational system, which results in re-interpretations and novel understanding about the reform under construction, and the anticipation of new behaviours that are required to achieve the aims of the reform. Moreover, stakeholders from the different levels of the educational system draw on their existing knowledge and experiences so as to interpret new approaches, and hence may reconstruct policy messages in ways that either reinforce pre-existing practices or lead to new approaches and change (Coburn, 2001a; Guthrie, 1990; Jennings, 1996; Shifter & Fosnot, 1993; Smith, 2000; Spillane, 1999; Spillane & Jennings, 1997). Moreover, the way in which shared sense-making is organized determines the quality of the sense-making, the stakeholders' opportunities to engage in it, and hence, the extent to which new learning takes place (Coburn, 2005; Nordholm, 2016; Priestley, Edwards, Priestley & Miller, 2012). At the large scale

educational reforms both the shared sense-making and the orchestrating of it at the subsequent levels of the system has an effect on reform goals and ideas as they are transformed in the process changing the whole system (Fullan, 2003). Hence, the orchestration of shared sense-making always also includes power relations, and influences the conditions of participation and learning of those involved in it (Coburn, 2005).

Shared sense-making can be organized in different ways, i.e. different strategies can be employed to orchestrate the construction of collective understanding of the curriculum reform. Such strategies are typically comprised of various ways of leading and guiding the process, such as managing, navigating and regulating. The strategies also differ from each other in terms of control. Management strategies are often needed in the complex reform processes, typically to provide a structure for the reform work and to allocate resources. Navigating strategies, such as maintaining the focus of the reform and keeping it on track between the levels of the educational system, and regulation, such as building spaces for active participation and knowledge sharing among the reform stakeholders are, on the other hand, considered to be particularly effective in promoting active collaborative learning and hence sustainable school change (Boone, 2014; Guhn, 2009; Horton & Martin, 2013; Petko et al., 2015; Priestley, Biesta, Philippou, & Robinson, 2015; Pyhältö, Pietarinen, & Soini, 2015).

In the course of the reform work, the different strategies can be employed for different purposes depending on the task at hand, the sub-goals to be achieved as well as the expertise of those involved in the process. The strategies utilised for orchestrating shared sense-making during curriculum reform in the districts can be, more or less, intentional, systematic, and coherent in terms of goals. At its worst, the strategies applied can create chaos by bringing about a clash of innovations and producing isolated novel practices, or using too much control and thus preventing creativity and sustainable solutions (Fullan, 2003). Moreover, it has been shown that curriculum reform stakeholders may also apply avoidance of critical learning,

which is characterized by open-ended and problematizing discussions, as a strategy to reduce the complexity of curriculum reform work (Nordholm, 2015). The strategies utilized in orchestrating the curriculum work always reflect the orchestrators' understanding of the means to carry out the reform, i.e. their theories of changing, in terms of the curriculum reform.

2. Aim of the study

This study aims to gain a better understanding on how the theory of changing is elaborated at the district level (see also Fullan, 2003; Anderson & Togneri, 2005; Soini et al., 2016) in the large-scale curriculum reforms by examining how those in charge of steering the curriculum reform work, at the district level, orchestrating the shared sense-making concerning the reform work in the Finnish national curriculum reform in their school districts. The following research questions are addressed:

- 1) How do the steering groups at district level build a shared understanding of how to orchestrate the curriculum work at the local level?
 - a. Are there distinctive hands-on strategies of shared-sense making utilised in district level curriculum work?
 - b. How do these strategies serve and complement each other?

3 Study design

3.1 Participants

The data was collected from 12 groups, throughout Finland, that were responsible for orchestrating curriculum reform work, at the district level. The steering groups involved participants from 54 municipalities. The municipalities varied in size and location (rural/urban) and they were situated throughout the country. The groups (n=12) presented different ways of carrying out the local curriculum process in Finland, including steering groups covering several

neighbouring municipalities, and groups carrying out the reform work within an individual municipality or city. Thus, the selected sample of district level curriculum reform steering group municipalities, encompassed about 17% of Finnish municipalities ($n= 54/320^1$). Hence, the sample adequately represented the different types of municipalities in Finland, and the variety of ways for carrying out the local curriculum process, at the district level, in Finland. Accordingly, the sample can be considered ecologically valid in presenting the contexts, coalitions and ways of interpreting and orchestrating the large-scale educational reforms, at the district level, in Finland.

The steering groups included chief education officers, principals, primary and secondary school teachers, special education teachers, early childhood educators and youth workers. Therefore, the sample sufficiently presented the main educational stakeholders of the school districts. The groups varied in size (from 3–20 stakeholders) reflecting the [ecology] of the organization of the reform work. The coordinating groups were in the same phase of their local curriculum process as instructed, scheduled and supported by the Finnish National Board of Education (FNBE), at the national level. During data collection, they were in the initial stages of the process; reading the core curriculum document very carefully, trying to grasp the major concepts and starting to make local interpretations and instructions for the schools.

3.2 Data collection

The group interviews were conducted during spring 2015. By this time, the national core curriculum had been enacted (Dec 2014) and, based on that, the local level curriculum work had been initiated in the school districts. The steering group members had been appointed and the groups had held preparatory meetings. Before the data collection, the study was introduced to the steering groups, which provided sufficient time for interviews of different sized groups,

¹ The municipalities were sampled on the basis of national statistics gathered by Statistics Finland (2013).

encouraged participants to share their personal views with others. In the introduction, the interviewers emphasize that the goal was not to evaluate groups' success in the reform work nor to only have agreed views on the process, but to welcome the possible disagreements, different views and critical remarks about the core curriculums aims and process (i.e. reducing proactively the collective agreement bias). By this procedure, the participants were also encouraged to talk to one another, for instance commenting on each other's points of view and asking questions (Acocella, 2012). Accordingly, they were encouraged to consider the meeting as a "reflective group discussion" in where the experts share their experiences in terms of the ongoing curriculum reform rather than a "group interview" that purely raises the questions to be answered (Acocella, 2012; Morgan, 1996; Krueger & Casey, 2015; Chioncel, Van Der Veen, Wildemeersch & Jarvis, 2003).

Interviewers also offered brief summaries to ensure that the new knowledge, constructed in the group discussion in terms of making sense of the core curriculum, was similarly perceived by both researchers and informants, as well as among the informants, themselves. The semi-structured interviews included questions on three main themes: 1) *large-scale curriculum reform and school development*, 2) *organisation and implementation of the local curriculum process*, and 3) *ownership and agency, in terms of ongoing curriculum reform*. The interview protocol was aimed at gaining an understanding of the different ways and dimensions for orchestrating the local curriculum work. This part of the study focused on exploring the educational practitioners' shared sense-making process over curriculum reform. The interview protocol was validated, by the members of the research group, before the interviews. In total, the group interviews contained 27 questions on different aspects of the curriculum process, both at the national and local levels, in addition to a few background questions on the steering group's working history and justifications for the developed structure for carrying out the local curriculum work.

The interviews were conducted by two senior researchers, during the steering groups' meetings. The other interviewer focused on observing the group dynamics, and prompted additional questions such as "how do you perceive this issue" if some group members were left out of the discussion (i.e. controlling the respondent order effects) (Acocella, 2012). All members of the steering groups were invited to the group interview and participation was voluntary. The participants were informed about the study and their rights as informants, before the interview. None of the steering group members declined the interview. Each interview took between 60 and 90 minutes to complete. The interviews were digitally tape-recorded and transcribed into text files by a trained research assistant.

3.3 Analysis

The group interviews were qualitatively content analysed. The analysis was conducted by using the ATLAS-ti programme. The analysis was comprised of two complementary phases. In the first phase, all of the text segments in which the participants referred to the *orchestration of shared meaning making in terms of the curriculum work, including the strategies for managing, navigating and regulating the local curriculum work at the district level* were coded into the same hermeneutic category (primary coding). The selected episodes included a collaborative elaboration, which has provided significant new insights into the ways for orchestrating curriculum work in the school districts, i.e. regulating collaboration and learning with schools and teachers in the local area. These entailed episodes where the participants described a joint development of new understanding as a complement to the existing body of knowledge and beliefs, which resulted in either maintenance or altering of existing views on functional ways to facilitate district level learning, i.e. elaborating on the local theory of changing. To ensure the reliability of the primary coding, a disagreement analysis was conducted, for all of the data, by another senior researcher. The disagreement

rate was less than 3%, which showed that the developed criteria, for identifying shared sense-making episodes, were adequately specified.

In the second phase, the main category was inductively classified into the three main-categories that constituted *the hands-on strategies, for orchestrating the curriculum work at the grass roots level* with schools, i.e. among educational stakeholders and teachers in the area:

1. ***Integrating the curriculum process with the local development work***, comprising

- *Connecting* the curriculum process to the school development initiatives and/or school legislation reforms that are processed/implemented contemporaneously at local/school level.

2. ***Anticipating the key objects and phases of the curriculum process***, including

- *prioritizing and focusing*, i.e. analysing, phasing and outlining the curriculum work according to the designed road map that include aims and timetables set for the local process; and
- *bidirectional resilience*, i.e. anticipating the sensitive phases of the curriculum process or reverting back to phases crucial in this process for facilitating district-level learning.

3. ***Engaging*** entailing:

- *Engaging educational practitioners in learning*, i.e. designing participative forums and forms of the collaboration for teachers, with the aim of inserting extended knowledge/new information, adopted in the coordinating groups, into resources for learning at the school level, and furthermore, for developing transformative practices, guided by the new curriculum, in the school communities;
- *Capacity building*, i.e. identifying the social resources and expertise available at the local level for the functional and collaborative development work.

A disagreement analysis was also conducted, in the second phase of the coding, for the whole data. The disagreement rate was less than 1%, which showed that the developed data-driven

sub-categories, for identifying the means to translate the major ideas into practice in the local level curriculum process, were adequately specified. Accordingly, the resulting categories, from both of the content analysis phases, were validated by the research group, at the end of each analysis phase (Miles & Huberman, 1994; Yin, 1994). The researchers read the data carefully, constructed the categories and negotiated them in detail. In the few cases of disagreement, a consensus for final categorisation was reached via discussions between researchers. Moreover, the ecological validity of the findings was tested and verified during coordinating group meeting visits (spring 2016), where researchers and educational practitioners jointly reviewed the results (e.g. Bryman, 2004; Creswell, 2003). Coordination groups verified the authenticity of the results and the researchers' conclusions.

3.4 Methodological reflections

The study methodology utilised with the focus group interview data (Morgan, 1996) was reviewed. The method had several benefits. It enabled the steering group members to identify ways to meet their goals, identify and test strategies for increasing engagement and prompt learning by those involved in the development work, and to develop the criteria and process steps required to achieve their aims (e.g. Morgan, 1996; Krueger & Casey, 2015; Chioncel et al., 2003). Accordingly, the focus group interviews provided a functional method for gaining an understanding of the shared sense-making of the reform work carried out by the curriculum steering groups, along with different ways of orchestrating the curriculum process, at the school district level.

The *replicability* of the study was assured by using thematically structured interview protocols. By standardising the fieldwork procedures, the *credibility* and *dependability* of the study were increased (Chioncel et al., 2003; Morgan, 1996; Krueger & Casey, 2015; Shenton, 2004). Cross-checking of the data analysis was conducted by two of the

authors of this paper in order to optimise the power of the *[researcher] triangulation*, and further increase the *confirmability* and *transferability* of the results (e.g. Shenton, 2004).

The two discussion moderators ensured that the members of the steering groups covered each of the themes comprehensively, asked for clarification and triggered further discussion related to the particular theme under collective reflection. Also, bringing out the possibly differing views in the group was explicitly encouraged by interviewers. The risk of dominance or passivity on the part of some of the participants or the possibility of falling into a collective endeavour for unanimity, while ignoring information inconsistent with the dominant views (i.e. 'groupthink'), was reduced by monitoring discussion participation, and if needed, prompting a return to previously presented perspectives or questions that were considered to be central in gaining a better understanding of the shared sense-making process, carried out by the participants (Chioncel et al., 2003. Morgan, 1996; Krueger & Casey, 2015). Accordingly, by monitoring and balancing the group members' equal opportunities to present their shared or non-shared views, the dominance bias of the focus group data was also controlled (e.g. Acocella, 2012).

4. Results

The results showed that the district level steering groups used several complementary strategies for making sense of the functional ways to orchestrate the curriculum process at the school district grass roots level. The different strategies for managing, navigating and regulating the curriculum work, at the district level, were also employed for different purposes. The orchestration strategies of shared sense-making, carried out by the steering groups, were comprised of 1) *integrating the curriculum process with the local development work*, 2) *anticipating the key objects and phases of the curriculum process*, and 3) *engaging the*

educational practitioners in the curriculum process. The strategies employed by the steering groups complemented each other in orchestrating the district level curriculum work.

4.1 Strategies for integrating the curriculum process with the local development work (f=17)

The steering groups facilitated shared sense-making by *integrating the curriculum work* into the other contemporary school development initiatives that were simultaneously under construction in the district.

(CASE P10: connecting the curriculum process to the school development initiatives and school legislation reforms that are contemporaneously processed/implemented at the local level)

N: I was wondering whether a maximum/minimum level should be determined for various issues or the operating culture, to determine what each school will do. Then, if a school chooses to do more, it's their choice, but a maximum/minimum level should be set for activities. For example, with the implementation of communality, participation, an active operating culture and a sense of security, a basic level should be determined and written in it. Apparently, this work is not being done; in my opinion it has been left out. I know that we are in the early stages of the process; but, I don't know if it is being forgotten, and I'm just trying to keep it in the discussion, from the point of view of youth work.

N: In fact, we already have this, we are carrying out quality assurance-

N: I guessed that an evaluation done by a youth worker, well, it is only done once there, but, there will now be a second time. This is why they have brought in the representatives of quality assurance and given them a role in the curriculum work and process. Clearly, quality assurance is part of the curriculum process and it is linked to the evaluation you mentioned. All the elements must be evaluated, and the key issue is that it will be done at the school level. It will be a tool for developing schools and promoting participations in schools. And the curriculum is included in the evaluation as well, which is really important.

N: I was just wondering what you meant with systematic. Did you mean systematically changing the operating culture? Because, by creating systems, we can make changes. For example, when we changed the school well-being plan and the new plan focuses on hearing the child, the child's participation. Systems were created in schools for this, such as sending two children from a classroom to a school well-being meeting with the teacher. The system is in place to ensure participation.”

By building connections between the curriculum reform work and other contemporary school reforms, the local steering groups built district level coherence, i.e. the alignment of the development work and, further, mapped the preconditions for the real change to be rooted in local schools. Shared meaning making, about the ways to build the alignment of the development work, further enabled sustainable management of the curriculum work, between the steering group and schools in the district. However, steering groups also utilised

navigation, including prioritizing the objects and phases of the curriculum work and maintaining bidirectional resilience, as a strategy of shared sense-making in orchestrating the curriculum work.

4.2 Strategies for anticipating the key objects and phases of the curriculum process (f=42)

The steering groups used *anticipating and prioritizing*, including analyses of the key objects and phasing of the curriculum work (f=34), as the primary means of maintaining the focus of the curriculum work and keeping it on track. They developed context-specific sub-aims for district level learning and criteria for ensuring that the curriculum work with the schools maintained the intended direction.

(CASE P10: analysing the curriculum work)

”N: ...it is easy for us, working in administration, to get confused and only look at legislation. And I would like to go back to what I said about PISA, in the beginning. We should not forget that the results prove that Finland has been doing well. The reason behind this success is that our teachers have extreme autonomy, freedom. It was discussed, there, that almost no other country gives the teachers as much freedom as we do. And that is why, if it is the factor that ensures high levels of learning and working, then we should hold on to those factors. We should make sure that we don't get confused with terminology and stick to talking about the curriculum process at hand. Of course, we must carry out our daily work, but it is also what carries the children and young people forward in the learning process. We should not confuse these two issues. We need to understand that these issues require different perspectives and they should not be combined.”

(CASE P4: phasing and outlining the curriculum work)

”N: ...the actual constructivistic idea of reading through the curriculum. That we need to get it into our heads that we are not creating the way we did in the 1990s and early 2000s; but rather, we need to adopt the idea of the general part [introduced in the core curriculum], while constantly considering the objectives of the transversal competences, the transition phase. In my opinion we must also get this across to the subject groups.”

Shared sense-making, in terms of prioritizing and maintaining the focus of the curriculum work, also entailed the collaborative reflection of the *bidirectional resilience* (f=8) of the local curriculum work. The steering groups, for instance, proactively anticipated the crucial phases for keeping the curriculum process meaningful to the educational practitioners at the schools and, in turn, monitored reasonable grounds for reversals in the process.

(CASE P2: anticipating the key phases of the curriculum process)

” N: My basic feeling is that people are excited about the new and different curriculum and they have a lot of questions about how it will work and what will happen. In particular, they have questions about the phenomenon-oriented learning, about getting everything done and about evaluation. They are excited, but, also unsure.

N: Due to the tight schedule, we anticipated that schools would expect a clear framework and templates. Now that they have not been provided, for various reasons, it has actually been part of the strategy, it has forced schools to discuss these issues internally or with other schools. The objective has been to change the operating culture and this has made the teachers realise that they need to commit to this, and as a strategy, it has proved to be an important and good approach.

N: I have not heard any moaning about this not working. But it may be because of the people involved. Looking at school management groups, they are rarely a negative bunch... (laughter). I believe the moaning takes place elsewhere, but I have not heard any in my school.

N: In each school, these school management groups and curriculum teams have the opportunity and duty to discuss this. They have to work together and figure out how to manage this, as no answers are given to them from above. And eventually, they all have to realise that they have been given a question and they have to find the answer.”

(CASE P6: need for returning to a previous point in the curriculum process)

”N: ...in the end, we managed to put together the municipalities’ values [behind the curriculum work], and then the next objectives were the concept of learning and teaching methods. After that, the idea was to start work on subject-specific curricula in January. However, we decided that with such high-quality basics [in the core curriculum], there is no point in subject-specific work and we decided to take a step back toward the general part. We went back to values and the operating culture. And now, I wonder if you all agree.”

Accordingly, by anticipating, prioritizing and phasing the local curriculum work, the steering groups made sense of how to navigate through the curriculum process. However, constructing the shared meaning of the ways of managing and navigating the district level curriculum work and making sense of the potential means for involving teachers in transformative learning, were the most frequently reflected themes in the steering groups. Additionally, this often triggered discussions on how to facilitate and regulate the teachers’ learning, in various arenas of curriculum work, particularly between and within the schools.

4.3 Strategies for engaging educational stakeholders in the curriculum process (f=99)

The steering groups also carried out shared sense-making of the social resources and expertise (f=25) available for enhancing the reform work in the school districts and for regulating district level learning. This district level *capacity building* was perceived as key

for orchestrating and disseminating the transformative curriculum work across the steering groups, schools and teachers.

(CASE P1: identifying the social resources and expertise)

“N: If you think about small ones [municipalities] such as us with one history teacher and one English teacher. It is very different for us.

N: Yes, ideas are flying far and wide, across municipalities.

N: When we were recruiting people for these regional working groups, the economic situation was difficult in many municipalities, with people being laid off. It was very challenging, and we wondered if we would get people to join in. In the end, teachers got excited and it was a great feeling to see that people will get involved even under difficult circumstances.

N: Another thing, in terms of support, is that through the Osaava [national in-service education network for teachers] we are given training, specific training for this curricular work. They organise training according to our needs to enable the teachers to learn about the current issues. Explaining this to you, I must say it sounds really good (laughter).”

(CASE P1: identifying the social resources and expertise)

“N: I can tell you, the [teacher agents’] training in instructing processes caused so much debate and grey hairs. On the one hand, we were confident, but we were really worried, and the beginning was so difficult. The instruction team received numerous phone calls from worried participants. At one point, I was really worried about the course, but it was the best training I ever attended, the people were absolute stars-

N: One of the key elements was the ability to stand incompleteness, being able to face insecurity.

N: I remember receiving dozens of phone calls saying this sucks and nothing is happening, followed by calls saying maybe this will work.”

The steering groups’ shared sense-making strongly focused on facilitating the educational practitioners’ *engagement* (f=74) in terms of renewing the local curriculum, collaboratively. This was achieved by designing forums and forms of collaboration for educational practitioners in the districts, primarily principals and teachers. By regulating the context of learning, the steering groups aimed at facilitating innovative curriculum work among the educational practitioners within the districts. Active involvement of educational practitioners was perceived as a means of providing resources for teachers learning in the schools, and further, for developing transformative practices guided by the curriculum process, in the school communities.

(CASE P6: designing participative forums and aiming to integrate extended knowledge into resources for learning, at the school level)

“N: Yes, there is our working group, but I was already thinking about issues in my school. The challenge is, as XXX said, enabling management to pass it over to the teachers. I feel that we are not quite there yet.

N: I think that the enthusiasm that we have in our core group, having spent so much time on this, we have also passed it on to the others.

N: And then, I have found that the subject group leaders are starting to get excited, which is good. I mean, if it is just the principal going on about this in staff meetings and during breaks, the teachers are not likely to listen so well, but when it starts to come from your colleagues, it is more contagious.”

(CASE P9: designing participative forums and aiming to integrate extended knowledge into resources for learning, at the school level)

“N: All in all, I think that, even if the core curriculum is renewed every ten years, the curriculum is, in fact, being renewed continually. With this current process, the emphasis is on what gets written in the work plan every year. In a way, this gives us more opportunities to work on the plan annually, rather than having a curriculum set in stone. Actually, we have a good example of this... I'm not sure what the question was, but last week we had a training day for principals on curricular work, and we had thought about forming subject groups for them to work on. Our plans were ready, but then the principals, and this is what demonstrates their willingness to change, they said that they cannot work like that, that it won't change anything (laughter). It was great, actually.

N: It was a great event, the community spirit, there, was amazing. Everyone was like, we could do what we've always done, but this time, we'll do something different.

N: And now we're starting from the aspect of transversal competences, and that is why I said that I don't know what will happen (laughs) because it is so strong [the change]...

N: We can ask about the volunteers, again, next week (laughter).”

(CASE P10: designing participative forums and aiming to integrate extended knowledge into resources for learning, at the school level)

“N: And the big question we always discuss with teacher colleagues and others, and we all agree on this, is about what we should have and what the correct principles are. But then, we feel lost, like we don't know what to do. Like we need to work hard in schools, trying to come up with simple models in order to introduce an idea into practice, properly. And my experience is that not all teachers are willing or prepared to, or they don't have time. They may agree with you that this should be done but to actually achieve something, is a big question mark.

N: I find that the ground is better prepared, now, for infiltrating ideas.

N: It is the same as with maintaining participation and changing the operating culture in general. Some people are somewhat sceptical about writing yet another curriculum, when there will be a new one, again, in ten years. But this beginning and the general part have taught us to really work hard at our school, for example, to change the operating culture. When we have discussed something, and agreed to it and spent time in meetings then we want to stick to the changes. So, that if we have agreed to something then we'll get back to it a year later and look at what was agreed and how we have managed and what progress has been made. But we still need to work on getting every last person involved, as there are people that are not keen on cooperation and don't agree. We need to keep raising the minimum level all the time.”

In general, the results suggested that the hands-on shared sense-making strategies, employed by the curriculum steering groups, focused on managing, navigating and regulating district level learning in a variety of different ways.

The findings further implied that implementing the new curriculum called for shared sense-making in terms of building connections within and between the different levels and stakeholders involved in the reform process. Moreover, the steering groups played the intermediate role in the national curriculum reform, by facilitating shared sense-making at the district level. Additionally, by displaying complementary strategies for orchestrating the local curriculum process, the steering groups further developed the context-sensitive theory of changing (i.e. how to optimally orchestrate district level learning) at the grass roots level.

5. Discussion

5.2 Findings compared to prior literature

Building a shared understanding of the reform and its implications on everyday life in schools is central to successful school development; however, it calls for shared sense-making on how to organize development work (Garet et al., 2001; Kelly, 2009; Ng, 2009). In the multilevel, systemic reforms focusing on enhancing change in the whole system, the intermediate role in the of district level actors in orchestrating the change is crucial (Fullan, 2003; Hopmann; 2003). The present study focused on identifying the hands-on strategies used for orchestrating the shared sense-making, in the curriculum work, by district steering groups.

Results showed that district level curriculum reform steering groups recognized the importance of orchestrating shared sense-making at the local level and their role in it. They strive for constructing shared understanding of the means to be used in the implementation of the reform, at the grass roots level, of local schools. Three hands-on strategies of shared sense-making, in terms of facilitating the development work, were identified. Moreover, forms of leadership and guidance, managing, navigating and regulating were employed, however, with varied emphasis. Firstly, the steering groups worked to integrate the curriculum process with

the local development work to align the aims of the national curriculum reform with that of pre-existing efforts and objectives of local level school development. The results implied that the steering group members perceived connection making, between the general aims of educational reform and school reality, as being a single, vital precondition for anchoring reform in the local schools (Beane, 1995; Muller, 2009). They also described their effort to navigate the process by building roadmaps for the implementation, by facilitating construction of goal hierarchies and determining suitable sub-goals for the local curriculum work. Through the strategies, they built opportunities for learning, and hence enabled systemic change. The groups, however, predominantly focused on promoting fluency of development work at the local level instead of feeding back to the state level.

Moreover, the steering groups aimed for process resiliency by anticipating the possible threshold issues and phases that could pose a risk to the continuation of the process, based on their understanding of their districts. This hands-on strategy of shared sense-making helped them to elaborate the reform aims and evaluate their feasibility in the local setting. Anticipation included management and using power invested in the steering groups. For example, by prioritizing certain themes and leaving others with less attention, they restricted to some extent their participation so as to gain fluency in the process. Anticipation was as a means to manage time and meet the deadlines.

The most frequently used hands-on strategy of shared sense-making focused on utilizing, and hence regulating the social resources at hand. The steering groups aimed to build and draw on social resources by developing means for engaging the educational practitioners, within their district, in the development work and, hence, facilitate collaborative learning. The strategy is in line with the top-down-bottom-up curriculum reform strategy adapted in the Finnish core curriculum reform (Pietarinen et al., 2017). However, it also challenges the district level actors; they are expected to support the school communities in their development work,

provide resources and scale-up the initiatives of the school communities (Hofman et al., 2013), and hence act as intermediators between system and individual, bringing together the normative frames and creative process of those involved in implementation. The emphasis on engagement may also reflect the fact that the goals of the core curriculum were rather demanding and questions of how to motivate practitioners to participate in the hard work ahead (i.e. engage in new learning) was topical for the local steering groups. Especially, in Finland where teachers are highly autonomous (Sahlberg, 2011), the district level coordinators are well aware that reform success is, to a large extent, dependent on their willingness to adopt new ideas and turn them into functional pedagogical practices and “working knowledge” in the specific social context of each school (Coburn, 2001; 2005).

Results suggested that the reform steering groups emphasised managing, navigating and regulation of the circumstances in order to promote meaningful and collaborative learning at the local level. The basic preconditions for collaborative learning, such as facilitating educational practitioners’ ownership and engagement, was emphasized by steering group members (e.g. Ketelaar et al., 2012; Murphy, 2013; Priestley et al., 2014). Moreover, in hands-on strategies of local curriculum work, steering groups seem to intentionally aim for collaborative, inclusive processes by constructing an alignment between school reality and the aims of the new curriculum, and hence promoting reconstruction of meaning in local level (Coburn, 2005). In the hands-on strategy of anticipating the local curriculum work, the steering groups made thought experiments and attempted to predict possible consequences of the reform work. However, it is possible that anticipatory and prioritisation efforts served more of a preventative function aimed at minimizing or avoiding the risk of schools and teachers withdrawing from active role taking rather than that of creating and designing something totally new. It is noteworthy, that especially prioritizing may also

mean restricting the access to policy ideas and hence participation in the social process of interpretation (Coburn, 2005).

Achieving a balance between facilitating ownership (Fullan, 2007; Giles & Hargreaves, 2006; King & Bouchard, 2011; Lutzenberg et al., 2013; Newmann et al., 2001) and building reform coherence (e.g. Fullan & Quinn, 2016; Honig & Hatch, 2004) is a challenging, but crucial, task and requires using various strategies of leading and guiding the process. The steering groups frequently described carrying out systemic planning and organizing, complemented with appreciation of context sensitive knowledge. The results show that groups pursue hands-on strategies of shared sense-making in both directions and use their intermediate role. However, obviously they have more knowledge about and influence on the local level than in state level norm setting, resulting in a potential risk of focusing on finding suitable ways to deliver the ideas of the reform instead of developing the whole system (Mølstad, 2015; Spillane et al., 2002).

When aiming at profound educational system-wide change transformative learning needs to be strongly facilitated. Sense-making is crucial for collaborative learning; yet, transformative learning of the whole system (Fullan, 2003) may require more than proactive sense-making. Learning, as a meta-strategy for change, requires exceeding what exists, creating something new and conducting experiments between and within the local school communities (e.g. Soini, Pietarinen & Pyhältö, 2013). Hence, by involving teachers, students and parents in the designing of novel pedagogical practices, the fundamental aim of large-scale curriculum reform is given life and context-specific meaning at the school level, and the odds of achieving sustainable change, increases. To meet this goal, the prevalence of power relations and district level role as a facilitator of ownership, but inevitability also as a gatekeeper in the knowledge of the reform, should be recognised (Coburn, 2005).

Moreover, aiming for sustainable change, in which the district level plays a strong role in facilitating system level learning, provides intentional new learning at the district (and state levels) resulting functional tools for school development and cultivating reform design skills (i.e. conducting experiments and creating something new). A systemic management, context-sensitive navigation and regulation of local resources calls for facilitating and utilizing the development capacity, particularly expertise and social resources within the districts, not just to implement the reform, but also to enhance the local capacity building for promoting system level change, and to cultivate new ideas to future large-scale reforms. The preconditions for orchestrating this kind of innovative collaborative learning should be at the core of research on curriculum reform, especially, in future studies of district level school development work.

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