



Participation in national curriculum reform - coherence from complexity

Sanna-Mari Salonen-Hakomäki ^a and Tiina Soini ^{a,b}

^aFaculty of Education and Culture, Tampere University, Tampere, Finland; ^bSchool of Applied Educational Science and Teacher Education, University of Eastern Finland, Joensuu, Finland

ABSTRACT

National curriculum reform is a complex negotiation point of how basic education should be practiced and what role it should take in society. The question of participation in this process is central to creating a coherent, responsible, and implementable curriculum—but still left for little investigation in the national level reforms. Our goal was to answer, how can participation in curriculum reform create coherent system-wide change in a complex education system? In this study, we approach the participative national Finnish Core Curriculum Reform 2014, through interviews of the reform steering group who acted as central stakeholders in the reform. We practiced a thinking with theory-oriented analysis and utilized Michel Callon's four moments of translation as a theoretical framework to examine the interviews.

Results illustrate how the moment of intersement leads to enrolment—how participation adds complexity to reforms but also offers an opportunity to build more coherent and lasting system-wide change from it during the processes of learning with and from each other. The results also provide us with a practical view on why coherent, lasting change cannot be authoritatively forced in a system, such as the education system, but is by its nature networked, collaborative and shared.

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Introduction

Basic education serves as a cornerstone of democratic nations by providing everyone with opportunities to grow, learn and be civilized as a critically thinking human being and as a member of society. The national curriculum, as the binding set of guidelines and instructions, the national steering strategy for basic education all around the country, is a central national declaration of how this noble task ought to be actualized in the school system—and a continual target for national reforms. Nations reform their national curricula somewhat differently and we think it is beneficial to pay attention to these reform processes; how they are formed, who participates, and how they work. The national curriculum reform, after all, serves as the meeting and negotiation point of the complexity of the education system in terms of different actors, desires, demands, interests, aims and needs and the policies, contents, and methods of how education should be practiced in schools and what role it should take in the society (see Salonen-Hakomäki et al., 2016; Soini et al., 2021; see also Habermas, 2018). The question of *participation* in the national curriculum reform as this power-loaded re-determining process of education becomes central (Fung, 2006) and has been little studied: who gets to or should participate in the national curriculum reform, what kind of network

CONTACT Sanna-Mari Salonen-Hakomäki  sannamarisalonenhakomaki@gmail.com; sanna-mari.salonen-hakomaki@tuni.fi
 Tampere University, P.O. Box 700, Åkerlundinkatu 5, Tampere FI-33014, Finland

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is formed around it, and how does the participation in it lead towards a coherent national curriculum?

Historically, in educational reforms there has been and still seems to be a strong global desire for autocratic decision-making and a delivery-type implementation phase in the field. In practice, this refers to national educational administrators making the decisions about national curriculum by themselves, and school staffs' all over the country merely receiving the reformed, ready-made curriculum documents, trying to understand them, and follow them in their work. This phase of the system receiving the curriculum and starting to act according to it, is called the implementation phase, and it is often followed by strict national control in terms of monitoring the success of implementation: if teachers in local schools do not teach according to the reformed curriculum principles, it is merely an empty, meaningless piece of paper and fails to create value for society. However, this autocratic reform process, instead of bringing and holding the educational system together, seems to create failure, dissidence and disruption, misunderstandings and discontent in the education system towards the intended change, as teachers do not understand the changes or for some reason can or will not implement them in their work (see e.g. Al-Daami & Wallace, 2007; Cheung & Wong, 2011; Rogan, 2007). Why is this the case? We suggest the following: these reforms seem to contradict the networked nature of society and change—desired change cannot be delivered to education, it is always *translated* (see e.g. Callon, 1986; Fenwick, 2010).

Translation—as the process of interaction with the matter, to form a relationship with it and to position themselves in relation to it—in the context of curriculum reform means simply that everyone in the education system processes and works on the reformed curriculum to understand it, form their opinions and meanings based on it, and act accordingly, intentionally, or unintentionally. The coherence of these everyday actions and translations throughout the system determines whether the reformed curriculum survives implementation or whether the intended changes are not understood and applied by e. g. teachers, and the reform falls apart. Therefore, participative approaches to national decision-making initiatives provide another option to reform education sustainably: why not consider the reform as a system-wide translation process and invite the system in the reform from the beginning, already in the level of national curriculum making, to avoid the translation issues in the implementation?

Clearly, the whole education system cannot join the tables in which national curriculum is reformed and written, but a participative approach to national reforms could include e.g. a national reform process with many participants from different levels of the education system, participative leadership, collaborative and democratic group work approach to decision-making, open system-wide online-commentaries to collect feedback and system-wide information sharing, supportive sub-processes locally and interaction with different stakeholder levels in the education system throughout the national process (see Salonen-Hakomäki et al., 2023, c.f. also Wang et al., 2022). A high number of participants and opinions brings complexity to national reform work in terms of different desires and competences, thesis and antithesis, but might also be the key to resolving problems in a legitimated, coherent manner (see Lunenburg, 2011). Further, it is not only about who is invited to participate, but how their participation (Shaeffer, 1994) is enacted and takes place (Fung, 2006).

In this study, we approach a case of a national curriculum reform, the participative national Finnish Core Curriculum Reform 2014, through interviews of the reform steering group who acted as central stakeholders in the reform. Our goal was to answer *how can participation in curriculum reform create coherent system-wide change in a complex education system?* To understand the how part of participation (Fung, 2006), we have utilized the concept of *four moments of translation* by Michael Callon (1986), and especially the third phase of *interessement*; how the participants in the reform act to impact and change the curriculum reform on their behalf—and to what that process leads. Such understanding of stakeholder impact and participation has been called for recently in e.g. leadership and organizational studies (Kujala et al., 2019) and the present study responds to this call by

providing some key aspects to consider when building sustainable system-wide change in the future.

Sociology of translation and educational change in curriculum reforms

Building coherence in complexity

A curriculum reform can be conceptualized as a more intelligible and tangible sub-system of fluid, uncontrollable educational change; a structured process, a goal-oriented network in which the participants analyse, determine and form the content, direction, aims, goals and means for intended change, the new curriculum, in the system. To make visible some of the complex movement within the reform, we conceptualize a curriculum reform as an *actor network*, a relational network of various actors, human and non-human, and the relations, negotiations, and continual translation between and across them (Latour, 1999; see also Law, 1992). When considering the curriculum reform as an actor network, focus is not primarily on who is in the network but what kind of actions take place, form, and maintain the network, and how the process of translation is central in it. The sociology of translation framework developed by actor–network theory (ANT) gurus Michel Callon and Bruno Latour provides an interesting perspective to understanding how change occurs in such a network. Latour's idea of translation, which emphasized the idea of continuous translation (Latour, 1999), a chain of on-going unique contextual change processes, in contrast to Callon's (1980, p. 211) definition of translation as 'creating convergences and homologies by relating things that were previously different', form together an interesting, paradoxical lens for analysing reform.

Firstly, taking the perspective of continuous translation emphasizes the *complexity* of educational change in the context of e.g. a curriculum reform. There, in the middle of the complex, loosely-coupled, nested education system, different actors act—and as they act, the complex set of meanings, and interests around the curriculum continually appear, change, and gain ground (Wæraas & Agger Nielsen, 2015). This complexity becomes an inescapable basis in a national reform as the reform manifests a complex negotiation of different actors, interests, issues, problems, meanings and relations stemming from the past, the present and the predicted future.

Further, in line with Callon, coherence in terms of closedness is another central denominator of actor networks (Fountain, 1999) such as a curriculum, or curriculum reform; translation is not only about complexity and relativism, but it tends towards coherence. Coherence refers to the inner connectedness, inner sense of belonging and level of homogeneity that is inexorably and continually acted out within and across the actors in the network. A curriculum, for example, cannot be everything, it needs to be something. A curriculum reform is not everlasting; it has an end and, therefore, has limits. When defining and upholding a network, decision-making and shared understanding about the central contents is crucial (Lunenburg, 2011): there needs to be a recognized inner rule by which actors can negotiate their relations with the network and position themselves either inside or outside of it. A network with inner coherence holds together instead of falling apart through dispersion and, consequently, makes itself a bounded unit that stands out amid the surrounding complexity—like a national curriculum that provides guidelines on what and how to teach in schools throughout the country.

These aspects of translation—complexity and coherence—are clearly present in curriculum reforms. The main goal of the national curriculum as a system-wide steering strategy of education is to build nation-wide coherence (cf. cf. Pietarinen et al., 2016) and equality, a system that can be (to a certain point) determined, developed, and controlled nationally (Fenwick, 2010, p. 119). The challenge is to reach national principles that can read, understood, and acted out in implementation system-wide—in a system that cannot be paused but continually works on and produces translations of education. Therefore, a central task is to build such a curriculum that would appreciate the

system's complexity and create coherence in terms of being accepted and truly implemented in the everyday interactions all around the system. This requires getting the whole system in the same boat of change, in the system-wide curriculum network, acting according to the reformed curriculum, implementing it, and translating it into educational practices in the desired manner.

How does translation work?

Translation (see e.g. Callon, 1986; Fenwick, 2010) refers to the inevitable, on-going, relational movement of change within and across a network, e.g. the whole education system, in which new understanding is formed and stabilized. We strove to better understand the role of translation in curriculum reforms—how it similarly sets apart in terms of complexity and brings together in terms of coherence—by deconstructing it with Callon's (1986) 'four moments of translation' (see also e.g. Bergström & Diedrich, 2011; Jackson, 2015; Wæraas & Agger Nielsen, 2015).

The first moment, *problematization*, is the stage of network formulation; gathering actors together to form a network, and further, determining the goal of the network, e.g. to reform the national curriculum document. Problematization is an essential starting point for the network. It refers to providing the defining factors, preconditions, structure and boundaries for the network by answering questions such as: What is the purpose and function of this network? Who or what elements are included? Problematization continues as the actors join the process through positioning themselves and their actions in relation to it.

Interessement, then, follows problematization, and refers to the interaction within the problematized network and the active acts that the actors practice as they come together to problematize the network further. It is the moment in which the actors in the network act from their own starting points, needs and interests, and try to change the network to fit to their own preconditions, situations, positions, ideas, and needs. This is the phase of complexity, collisions, and dilemmas, and may include contradictory and incompatible elements that cannot coexist in the network.

Enrolment is the desired outcome of interessement (cf. Czarniawska & Joerges, 1996) and refers to actors finding and taking a suitable place for themselves to act in the network, and they commit to it. They no longer pull the problematization in their own directions by interessement but actively accept their roles in the problematized network and begin to support this particular problematization. In other words, they commit to the network. This is the essential precondition for a network to reach a sufficient level of coherence to stay together and to be mobilized.

Mobilization, lastly, refers to the final moment of translation when the principles of the network are applied in practice with other surrounding networks (cf. Callon, 1986) and the network stabilizes its position in its surroundings. For example, to be successfully implemented, the national curriculum must recognize networks that have influence on it, such as e. g. national laws, or classroom realities. Whereas enrolment builds inner coherence within the network and holds it together, mobilization is essential as a network does not exist in a vacuum but in relation to the surrounding reality. Therefore, it is essential that the function, boundaries, and actor positions in the network are stabilized and identifiable to a point that the network can be reacted to, supported, or sometimes even rejected from outside of the network. A mobilized network is therefore seen as a unit in which the whole is more than the sum of its parts, a unit with whom you can form a relationship.

Participative approach to national reforms—focusing on interessement

These four continual processes of translation, which are not strictly linear but entangled and overlapping within and across the actors, are essential in delivering and sustaining networks (Callon, 1986), and they also provide an interesting approach to analysing the role of participation in national curriculum reforms. The phase of interessement is of particular interest in this study. We want to examine how the complex relational processes of different actors with multiple ideas, aims and needs, and individual interpretations and perspectives (cf.

Czarniawska & Joerges, 1996) influencing the network can lead to coherence, as they more seemingly lead to complexity. Probably everyone shares the idea that participation is great and honourable thing, a strong value in democratic societies as it highlights individuals', as well as different groups', opportunities, and rights to have an influence on and greater control over issues that concern their lives (Habermas, 2018, Ogun, 1982:2 in; Shaeffer, 1994). Still, taking a risk and building a participative national reform requires deeper understanding of the processes and benefits of participation in a reform and that's exactly what we aim to provide with this study.

When we consider the education system as a network of translation, though, on one hand it is irrelevant whether reforms are built to be participative or not—the participation of actors in the translation is never voluntary, but inevitable. All actors in the network act and therefore have an influence in the process in which the change is initiated and tested (see e.g. Callon, 1986) as stakeholders of the education system and societal change (cf. Kujala et al., 2019). However, it is equally important to note that the inevitable translation can be either supported or rejected by problematizing the reform process as either participative or non-participative (cf. Arnstein, 1969). This puts pressure and responsibility on national leaders to recognize the actors in the education system as active participants, translators, and owners of the reform from the beginning, instead of considering them as passive followers or deliverers of the finalized product (Fulop & Lindstead, 2009; Soini et al., 2021). The importance of learning more about the processes of translation, and especially of participation, in a reform becomes evident to support and lead participation in reforms.

Explaining the study

The context of translation: the Finnish school system

The context of this study is the latest Finnish national curriculum reform, The Core Curriculum Reform in 2012–2014 (hereafter FCCR2014). To understand the reform, we need to get an overall view of the Finnish school system. The Finnish basic education system, comprehensive school, is a somewhat unique context compared to most Western systems, which are inspired by the Global Educational Reform Movement (GERM) (see Sahlberg, 2011) and have their roots in accountability and control. In contrast, as Sahlberg (2011) crystallizes, the Finnish system has since the 1960s been based on equality and trust.

Equality has been an important value in Finnish basic education since the comprehensive school reform in the 1960s and was also considered vital in the FCCR2014 (see e. g. Salonen-Hakomäki et al., 2016). Education reform in Finland is based on the principle that every child must have equal opportunities for education despite their background or place of residence. Therefore, the central steering strategy of education, the core curriculum, is binding system-wide, the same for everyone in Finland. The Finnish system appreciates and aims at nation-wide coherence in education to promote equality, but separates it clearly from alignment: the Finnish system relies on a national core curriculum as a norm but also on strong local and school level implementation work (Mølstad, 2015). The curriculum implementation consists of schools making their own, more detailed curricula of the national core curriculum with considering local needs and views in the work, and in some areas there is also local collaboration of schools about the curriculum. Further, in Finland, considering also individual teachers' roles as trusted local implementers is fundamental (Soini et al., 2021). Education is not seen as an institution waiting to be organized (Nespor, 2002), but more as a network in which actors at all levels of the system have active roles in system-wide learning and development (cf. Myran & Sutherland, 2018). Finland has a strong master-level teacher education and teachers are considered as appreciated, autonomous professionals (cf. Bakker, 2016) who are capable and encouraged to make their own pedagogical decisions and adapt their teaching to local or individual needs. Accordingly, the core

curriculum, the central national steering strategy of education in Finland, is reformed according to a participative reform model in collaboration with e.g. teachers, teacher educators and other professionals, and the model, at least in principle, reflects and respects the principles of system-wide learning and translation (cf. Shaeffer, 1994; Salonen-Hakomäki et al., submitted) by leaving space for teachers' translations of the curriculum in the everyday work as well.

Finnish core curriculum reform 2012–2014

In Finland, curriculum reform is a system-wide multi-level reform (Soini et al., 2021). The latest core curriculum reform, studied in this paper, started in 2012 after the Finnish parliament had accepted the distribution of lesson hours (the number of hours per subject to be taught in schools per week) prepared by the Ministry of Education and Culture. Based on that document and the finances received from the Ministry, the Finnish National Agency for Education (EDUFI) started the FCCR2014 by planning, building, and conducting a participative core curriculum reform process (Salonen-Hakomäki et al., 2023). The FCCR2014 work was led by the head and the manager of the process and the EDUFI coordination group, but altogether 25 EDUFI officials participated in planning, conducting, and steering the reform. The EDUFI officials built a reform network and invited around 250 participants, e.g. teachers, researchers, and principals, from the educational field to participate as actors in the working groups that they headed that were tasked with reforming the curriculum. To welcome different perspectives also in the decision-making a steering group of representatives of some of the most influential institutions and organizations related to education was constituted. These included stakeholders from e.g. the Ministries of education and culture and social affairs and health, the trade union of teachers, principals' associations, associations of local and regional authorities, etc. The steering group's task, with the head of the reform as their leader, was to comment on all the drafts during the work to create coherence in the curriculum.

In addition, a nation-wide, open-to-all online comment forum was opened twice to gather feedback on the unfinished drafts, and the drafts were further developed in groups based on the received feedback. Different support processes were set up in the field and administrators travelled around the country organizing presentations of the process. Seminars were held for the reform participants to meet, discuss, and share knowledge across groups. Each working group also presented their drafts several times to the steering group, which discussed and commented on them for further elaboration. Once the drafts were finished and the steering group had verified them, EDUFI officially accepted the norm, the Finnish core curriculum 2014, to be implemented at the local level immediately and practiced in schools at the beginning of the autumn term of 2016.

The data: FCCR2014 steering group interviews

To problematize the participative nature of the FCCR2014 reform we dig deep into the insider stories told by reform participants themselves. The first author interviewed the FCCR2014 steering group members to examine one of the most challenging contexts of participation in the two-year reform: the group responsible for guiding, aligning, and supporting the national core curriculum reform work by checking and commenting on the working groups' drafts during the reform. This ad hoc group was responsible for ensuring coherence in the curriculum as well as bringing diversity to the reform network, as it consisted of representatives from various of the most powerful education-related stakeholders in Finland, more or less unknown to each other, with strong and possibly contradictory interests, trusteeship roles, and pre-determined goals and desires for the future of Finnish education. The actors included:

- Finnish National Agency for Education (EDUFI) (steer person and secretary of the group)
- Finnish Ministry of Education and Culture
- Finnish Ministry of Social Affairs and Health

- Advisory Board for Ethnic Relations/Finnish Ministry of Justice
- National Institute for Health and Welfare (THL)
- The Association of Finnish Local and Regional Authorities
- Finnish Association of Educational Directors and Experts (OPSIA)
- The Finnish Association of Principals
- Finnish Association of Normal School Principals (Harre ry)
- The Trade Union of Education in Finland (OAJ)
- Finlands Svenska Lärarförbund (FSL)
- Finnish Parents' League
- The Sámi Parliament
- National Advisory Board on Romani Affairs
- Confederation of Finnish Industries (EK)
- The Central Organization of Finnish Trade Unions (SAK)
- Finnish Book Publishers Association

The steering group members were invited to the study in spring/autumn 2013 via email by asking their willingness to share their thoughts and experiences about the FCCR2014 process in a phone interview session later that spring. In total, 13 of the 18 steering group members participated in the phone interviews with the first author and shared their stories. The interviews addressed the following themes: the aims of the reform, the core curriculum reform process as a whole, group work within the reform, the interviewee's role in the process, the interviewee's thoughts on the local implementation, the purpose of the reform, and any issues the interviewees wanted to share in the interview.

Examining participation with translation theory

In this study, a 'thinking with theory' oriented analysis (see e. g. Augustine, 2014; Jackson & Mazzei, 2009) was utilized to approach participation in FCCR2014 with the concept of translation (Callon, 1986). The analysis was planned and conducted by the first author, whereas the second author contributed to the process via rigorous conversations and comments and challenging and supporting the process. The question in the beginning of the process, to gain understanding of the role of participation in a national reform in creating sustainable system-wide change in education, and coherence in complexity, was *how can participation in curriculum reform create coherent system-wide change in a complex education system?* Translation in terms of complexity and coherence was applied as the background theory and interestment was the central lens for the analysis (although other translation phases are clearly interlinked with it). The following sub-questions were asked:

1. *How was interestment as a process of participation practiced in the reform and what kind of complexity did it cause in the reform? ('The complex reform' in results)*
2. *What made the reform network hold together and create coherence through the complex processes of interestment? Did the reform hold together—was there enrolment, was there coherence? ('The complex reform transitioning to coherence')*

The aim of the researcher was to personally (as a subjective thinker, cf. Jackson & Mazzei, 2009) stick 'at the threshold' of both the theory (sociology of translation) and the data (the steering group members' interviews), to keep them close together (Murphy & Costa, 2015), and to push them to 'exhaustion' with each other. In the assemblage, in which the theory, data and the researcher's thoughts constitute one another in the context of the question in mind, the processes of *focused reading* on translation and the interviews and continuously *writing down* thoughts and new versions as the work of assemblage, became central and on-going tools of analysis (cf. Augustine, 2014). The process was one of translation (cf. Callon, 1986): building a first problematization by gathering theory

and data, then practicing intersement to the data and the theory with critical thinking to form a new assemblage. These processes continued until the point of enrolment on the analyst's behalf was reached and when the written text seemed to respond to the questions in an interesting way, to illustrate both theory and data, and also felt right for us as researchers in the light of our understanding of this area and seemed to provide an understanding of the principles to be mobilized. At that point, we considered that the analysis resulted in an interesting illustration of participation in the FCCR2014.

1. Presenting the complex FCCR 2014 reform

The reform process as an intersement device

From the interviews it became clear that the 'big idea' behind the FCCR2014 was to be a participative reform, where the approximately 250 participants with their expert knowledge, experience base and views were invited to the reform working groups—to reform the curriculum collaboratively. In terms of translation theory, the EDUFI officials heading the process acted as primary architects who problematized the reform process and the main goals for the work. The participative reform process with tens of working groups and various meetings was built by them to be an intersement device: the participants were welcomed to the work as intersementers to act in various ways to make a difference in the curriculum network.

The core curriculum work formed a complexity of perspectives and worlds as the different participants brought up, reacted to, and commented on the issues at hand from e.g. the pupils', teachers', municipal administrators', parents', global, cultural minorities', and industrial perspectives—as well as all the other perspectives that came into the mix. The participants in the steering group, our interviewees, were invited in the reform to represent some of the most influential organizations in society with respect to basic education so that they could provide their versatile views for steering the work, as the group was responsible for reading the curriculum drafts during the work and commenting on them to ensure coherence and operability. This open approach was praised by all the steering group members, and one interviewee reported their appreciation accordingly: *'this is kind of open process where efforts have been made to give the steering group as well as the teachers and other stakeholders a chance to affect this process—that's perhaps the best side of it'*.

Steering group as a mediator

The steering group members' descriptions of their work illustrated participation in the reform as a complex process of mediation. Firstly, the steering group members described their participation, or intersement, in terms of *'normal expert work, normal steering group work'*, which referred to actively reading and commenting on the received curriculum drafts (written by the working groups) from their own position. In practice, the interviewees reported preparing good, well-explained comments, arguments and statements, giving examples, asking questions, trying to clarify why something either works or not, explaining the practical consequences of proposed changes, pointing out problems or miss-fits, and aiming at getting the important points from the conversations through to the written text. Speaking up was the number one way to intersement: *'To keep my mouth open'*, as one of the interviewees concretized it. The central goal of this intersement task was to aim at changing the network by problematizing the curriculum from *'my perspective'* – trying to make others to join *'my view'* and support *'my problematization'* of the issue.

The interviewees acted as intermediaries between their home organizations and the reform and had different understandings of their intermediary roles. On one hand, they reported primarily *'carrying and guarding the briefcase of the home organization'*, as one interviewee described the representative position, and highlighted the importance of having conversations and collecting feedback, as well as delivering and testing the reform ideas in their networks before the steering

group meetings. They reported having a strong sense of responsibility to seek the best for their home organization in the steering group meetings and to represent their home organizations' perspectives and arguments well. As one interviewee stated: *'These [comments that the interviewee had raised in the work] by no means represent my personal perspectives on the matter'.*

The same interviewee later continued: *'I have always supported some participants' perspectives when I feel that they are the same as I have, or our organization has'.* Evidently, the role of pure intermediary is never met with human actors—as participants they are inevitably active mediators, bi-cultural or even multicultural translators (cf. Yanow, 2004). They were themselves complex networks of personal convictions, experiences, opinions, feelings, and knowledge—acting according to different, even contradicting intersectional group roles, views, or and responsibilities. However, this versatility was also a reason for them being invited to participate in the work as expert participants, as one of the interviewees explained:

I have built up over the decades, through my educational background, a way of seeing these things, so that I can give a presentation of my theory-in-use. My current perspective is ... (starts to explain a perspective on education ...)

To make decisions on the drafts, the interviewees tested the curriculum ideas and their practicality with their own expertise and the convictions of their home organizations, but also with many existing networks important to them, such as the Local Government Act, Pupil/Student Welfare Act and other laws, the distribution of lesson hours, international conventions and agreements such as the Declaration of the Rights of the Child, or latest studies or theories on education—making the reform strongly connected with various societal networks.

Complexity and tensions as a result

Relativity and the networked nature of educational change caused serious challenges to the work as even a small detail might have an influence in the implementation. Therefore, everything needed to be addressed to make wise decisions, as explained in this citation:

And you just think that equal treatment ... That everything in there must be taken into account, those smaller and larger details, so that they do exist and serve, exist as one part of the reform work.

However, this diversity of views that participants in the working groups as well as in the steering group brought to the work was concretized as the existence of complexity, tensions, contradictions, controversies, and struggles (cf. Fenwick, 2010; O'Connell et al., 2014). In other words, the curriculum reform network was full of ideas, goals or other elements that could not all co-exist in the curriculum or in the society, and therefore required decision-making on behalf of the reformers (see Salonen-Hakomäki et al., 2016).

One example of a tension to be resolved was the new sports innovation system which was reported to have caused a lot of debate and contradiction in the group as it was not fully in line with municipal laws and agreements—even though it was considered a positive innovation. The interviewees also pointed out that the curriculum draft, so far, did not serve teachers in the best possible way and was not fully in line with laws, teachers' working contracts or binding international conventions. Some decisions were causing municipalities difficulties in implementation.

Interviewees reported also tensions that hindered the coherence of the reform network. For example, the Ministry of Education and Culture hindered the work as, in their view, the Ministry did not provide enough resources for the reform that it would have been possible to arrange enough meetings and support the progress of the complex participative work. As one interviewee explained: *I am so disappointed that EDUFI has been given this pretty huge task but then, no resources. I hope you bring this up that we have not received resources for this work from the Ministry, they have only emphasized the importance of it.*

From collaborative work to written text?

The curricular changes were addressed as collaborative group work but needed to be written down as a coherent document. Texts were thus an important tool in the group work, which proceeded via writing and re-writing drafts. The amount of text to be read and commented on in the steering group meetings was reported to be vast—as one interviewee explained, discussions were based on *'a horrendous pile of material'*, hundreds of pages of drafts in PDF format, which was described as clumsy and hard to comment on. Interviewees reported the work to be extremely time consuming and challenging: *'In such a short time that the meeting day is, to bring up all of your own opinions and comments from the material, it is a big challenge'*, reported one, and another pointed out: *'You really have to have done your homework if you want your voice heard'*.

Another challenge was the complexity of language as an intermediary of meanings; interviewees reflected on the challenge of choosing adequate concepts and writing the curriculum in a way that is understandable by all actors in society. This requires bridging boundaries of interpretation and semantics—which could also fail, significantly hindering mobilization of the curriculum. Language played a big role in making the central ideas of the curriculum both understandable and implementable:

And then we come to the question regarding the writing of who is it for? This kind of pedagogical language I can speak and write about. But for people without a pedagogical background commenting on the curriculum, for example companies or our unions, or parents It's not only about this reform but more generally about educational jargon versus vernacular Finnish When some things are said in this pedagogical language, for many it can be difficult to understand whether there is some point of view here, or not. - - It is Finnish, but a quite complex kind of it.

Overall, the interviewees reflected on how difficult it was to summarize, condense and translate the discussed issues into a few words and written comments in the curriculum drafts, and further, turn them into new, written curricular understanding. Interviewees described their shared concern as to whether they were able to convey their *'great understanding'* and *'good intentions'* to the curriculum document; what if the point that the reformers saw as important became hidden beneath the huge amount of content and detail? After all, the core curriculum text would reveal quite plainly whether their understanding was coherent or disjointed. Several interviewees were concerned that this process of finding the core was still in progress and doubted if the curriculum had yet reached such a pivotal moment in terms of the inner coherence of the document that would lead to successful mobilization:

I'm afraid that if and when the core curriculum gets too broad, no-one will be able to absorb the amount of text that is in it, and then the meaning of the curriculum, or its importance, will be missed.

There's a lot that should have been either framed more clearly or explained a bit more. If I don't get clear instructions as a teacher, then I'll continue as I have always done before.

On the other hand, also too coherent and detailed content at the national level would cause problems, as some interviewees stated. They talked about the difficulty of stopping the reform device from working *'too well'* and going into too much detail when writing the core curriculum and, in doing so, limiting the role of local implementation of autonomous, professional teachers: *'The difficulty is precisely in the extent of the guiding effect of the curriculum and pedagogical freedom'*, one of them stated. And, as another pointed out, the core curriculum should remain open enough to provide a strong basis for local participation and discussion, instead of a tailored, closed answer to all problems:

So it should provoke a conversation in every school, every municipality, in everyone about how to think, how to think about a student What is our perception of teaching and what kind of teaching do we want to provide? Those frameworks should be there. But it should not be kind of a perfect model where we describe page by page how we want it to be because then the teachers Or I'm afraid the teachers won't internalize it, or they won't own it if it's

already thought out for them ... Teachers and basic education providers should be given the opportunity to influence what we want.

The potential risk of providing too much detail in the curriculum needs to be truly recognized when building system-wide participative change. As the interviewee stated, ready-made decisions with much detail might weaken the possibility of teachers to own the curriculum, as there is no room for their own interest and participation process. However, too general level and open questions to be decided in local level and schools requires significant investment (resources such as time, capability, collaboration) in teachers' sense-making and experimenting.

2. Presenting the complex reform transitioning to coherence

The essential coherence

A chaotic mix of numerous different, even contradicting perspectives written down and gathered together into a core curriculum document is not the desired end result of a national curriculum reform, and definitely not a step towards sustainable educational change that supports system-wide equality in education. Therefore, a participative reform aims at reaching some consensus and delivering a core curriculum that is a sufficiently coherent unit that it can be mobilized and be recognized in the whole nation (cf. Callon, 1986). *'Do it in such a way that guarantees a certain level (of quality) throughout the country'*, as one interviewee put it, so building a basis for system-wide coherence in terms of equally good basic education in all parts of Finland was a clear goal of the work.

EDUFI as a boundary-setter

An evident mean of building coherence into complexity was by force (cf. Callon, 1986) by EDUFI officials as the primary engineers, organizers, and leaders of the reform, who carried the main responsibility for the process and the outcome by problematizing the reform process. Firstly, EDUFI had determined the goal of the reform, the form of the reform as a participation-based work, and the timetable and strict due dates that forced the process to proceed according to how they had problematized the reform process. Another important element of boundary-setting was information and feedback sharing. The aim was to keep everyone in the same boat by sharing up-to-date information on the progress of the reform in seminars and meetings as well as on-line, to support participants to be on track and to put their energy into conversations that would bring the work forward instead of getting lost on the sidelines. The pre-determined boundaries of the final document (e.g. pre-designed structure, word counts for sections) forced the working groups to crystallize their ideas into a small number of words.

Further, the EDUFI officials acted as chairpersons and secretaries in the working groups and used simple actions of power to steer the work. In describing their group work, interviewees mentioned that the chairperson limited the conversations, reminded them of the timetable, and took care that all topics on the agenda were discussed instead of sticking to just a few. The steering was more open during the beginning of the work but increased as the process went on and decisions had to be made, as one of our interviewees described. Further, the chairperson made sure that everyone had the opportunity to speak, and different opinions were written down. Secretaries summarized the discussions as they wrote the meeting memos. One interviewee commented on the skilful steering as follows: *I counted that I sit in more than 200 meetings a year, in different configurations. When EDUFI organizes a meeting, you get the feeling that the organizer knows what they're doing, and it's organized in a way that you can trust.*

The steering group as a boundary-setter

The steering group supported EDUFI in the boundary-setting task by commenting on all the drafts in order to build coherence and embrace views they considered essential to the curriculum. The interviewees were aware that making decisions and setting boundaries for the curriculum was unavoidably important, even though this may entail excluding views that are considered by some to be important or beneficial, as two of them reflected:

Together we have understood that the curriculum must not be too fully packed. In order to make room for new things, something should be able to be left out. So maybe that kind of courage (is needed). It's not an easy thing to give up 'this' or replace 'that' with something new.

The steering group has received so many requests from outside of the reform work. I mean, from various NGOs and minorities and ideological movements. -- We've talked so much about that, probably because so many great things have come up, but the time limit based on the Distribution of Lesson Hours is very limited -- and we have had to say to almost everyone that 'that's a good thing, but there's no way to fit it in, not even as a footnote'.

Here, the interviewees explained how inevitable it was to make exclusionary decisions in a reform to make room for the most important contents of the curriculum. The decisions were important also to ensure coherent guidelines for actors inside of the network to proceed in their work. Coherence requires inner cohesion and connectedness, a shared policy that unites the network and keeps it together, and an interviewee explained the benefits of boundary setting as leading to more coherent material during the work as the process proceeded:

There were considerable differences in how the working groups seemed to think. And it was pointed out that no different policies are accepted in this group compared to the others and this has then, through the chairs involved, also been passed on to the working groups. And led to more coherent material in the following sessions.

The steering group had the power, or obligation, to exclude or require re-consideration of views that did not seem to be in line with the curriculum as a whole or work in practice in implementation. Some interviewees, however, pointed out that exclusionary decisions had consequences: a dissatisfied part of the network could practice intressement in terms of resistance or withdrawal. As a creative solution, some issues that did not fit into the document but were considered important were included in the support material section for teachers, but this was not a sustainable way to deal with all the issues at hand—and many useful elements had to be excluded. That required a lot of conversations and decision-making within the group.

Communicating, learning, and enrolling

Fitting together a huge amount of knowledge, views, opinions, interests, and arguments and forming some sort of coherent understanding based on them was described as a challenging task. How, then, did the steering group in practice decide what was core, what was their stance on upcoming issues, and which perspectives are to be included and which ones left out? Surprisingly, the interviewees told that even though they individually represented very contradictory perspectives, they had not needed to vote—not even once. Instead, their descriptions of decision-making in the group seemed to reflect the principles of a communicative rationale, as this interviewee described:

We discuss, we debate the issue. But I don't think there have been any such critical problems to which there was no answer, that it would have been like ending up deadlocked in some way. There was no such thing . . . Of course, there are always different opinions in these processes, different views on how things should be or what should be. But that is quite clear and that is exactly why we are there, sitting there wrestling the issues! And as a result, we get a good compromise, or we end up with some position.

Interviewees highlighted that problematization in the network happened mainly via argumentation and that merely presenting opinions was not considered enough: *'If I can explain and justify it well, then I have a chance to get through it'*. In these multilateral negotiation processes, the

problems, ideas, and solutions were contested in various ways—and what was left and formed out of these contestations started to represent the group. It was like building a giant jigsaw puzzle of basic education: fitting all the elements together in a way that would be accepted by all of the different networks that have central relations with the curriculum and education in general. So, as the participants practiced interestment in the reform, they participated in building a big picture of shared problems and the best possible solutions to solve them (cf. Czarniawska & Joerges, 1996). Here, one interviewee describes the communicative process that produces new understanding:

I don't think there's any point [in the curriculum] where I've been able to put my finger on it and say 'that's my line and I am proud of it'. Instead, having been part of the process, it feels like group thinking, instead of just my own personal thoughts. So, in my opinion, the process has worked. We have addressed issues together, viewed the working groups' achievements, processed, considered, and compromised [to the point] that 'yeah, if we wrote it that way, it would be OK for everyone'. - - It is a slow process but it [the end result] is found only after discussing the issue through tenaciously.

Translation theory explains the conclusion of the reform accordingly: a genuine interestment phase and problematization lead to enrolment. This successful transition is based on strong reciprocity and relativity in the network. Firstly, participants practice interestment towards each other by speaking up and sharing their experience, knowledge, views and arguments about the direction and possible pitfalls of the intended change. During the process, however, they both change the network, and the network changes them. This change emerges as the participants act, listen to each other, familiarize themselves with different perspectives and come to understand more of the complexity of the reform network. As a result, they look at the issues at hand differently, understand better the viewpoints of other participants whose thinking seemed at first to be far from their own. Discussing makes it possible for different worlds of different actors to collide and merge in the collaborative work when coherent, legitimate decisions need to be made. Practically, the actors learn (Carlile, 2004; Palomäki et al., 2019) from each other, from the reform network, from society, and from change.

The interviewees described their learning in many ways. *I wanted to put my expertise to work - - and the other way around, I am a receiving party when I am involved in the conversations. That is, I get caught up in the curriculum. If you want to get, you must give*, one participant commented regarding the reciprocity of the work. *'It has given depth to my thinking when I have had the opportunity to listen to the opinions of others - - a process of growth and development of thinking'*, crystallized another.

Understanding the complexity of the network also helped the participants to navigate within it and find and formulate suitable positions for themselves, as well as the perspectives they considered important. The interviewees said it was impossible to influence everything during the problematization; not everything can be changed, at least the way 'I want' (cf. Freeman, 2009). Therefore, prioritizing and choosing the right issues to raise was reported as important: by participating only in debates that are related to your own expertise and attempting to influence those issues, you have better opportunities to have an impact compared to striving to influence every issue. Therefore, via interestment, the roles in the group became clearer and the participants started to act according to them, which was one step towards stability and enrolment in the network.

Cohesion of the steering group—and the network

The work was not only about addressing issues and ideas but also about interaction and relationships between the participants. The relations within the network were clearly heterogeneous. Some group members had worked together or with EDUFI previously, reported shared interests and mutual trust with each other, and even allied, as one of the interviewees explained: *So you get support from a friend. . . For example, if this is an issue that we cannot accept or something we would like to include, could you support us in this? So, kind of lobbying, also.* However, perhaps surprisingly, the interviewees did not eagerly point out that some of the members of the group would have dominated or had a stronger position in the work, on the contrary, as one of the interviewees

reported: *'There are no individuals that dominate or are very strongly present, I'd say it's a pretty equal group'*. One representative of a minority group cherished the work like this: *'I feel that I've been able to say what I wanted, and that there has been room for everyone's voices there'*.

The interviews highlighted that the collaboration process had knitted the steering group together. Though the meeting days were reported to be long and strictly scheduled to handle all items on the agenda, the work was described as rewarding, different opinions were welcomed, and the team was spirit fruitful and respectful. Strong satisfaction towards the group and collaboration that had developed mutual trust acted as a glue that held the otherwise loosely coupled group together. This was clearly pointed out in the interviews—even though they had faced many situations in which they had to give up their own views and compromise. The following quote illustrates well the general happiness towards the group process that most of the interviewees shared:

I have the feeling that I've been listened to. We've had a great spirit in the group, I think we've got to know each other very well and we all know which facet each of us represents. We know the [different] opinions, that we have differences of views, but we have had a constructive spirit in the group. Even when we disagree . . . We have probably disputed about some issues, but the spirit, the thought, the communication is positive and good – this work has a good spirit! In my opinion, it has only improved as the process has progressed, and it has been a pleasure to be able to be a part of this group.

Not everyone fully agreed. A few interviewees reported discontent towards the group or the process, or personalization of contentious issues—which had caused them to withdraw and give up some of their interests that were not accepted into the curriculum. Despite these issues, all interviewees still seemed to be engaged in the group work and the curriculum network. The following citation is from an interviewee who reported frustration towards the process to some extent but was still engaged with the work:

*Everyone just strives to achieve a good outcome. If we weren't so terribly committed, I think in some other situation I could imagine myself saying that this cannot succeed. But in this situation, I just want to contribute and understand the importance of this work. With my *sisu* (Finnish word for resilience), I just cannot give up. I can't just hang up my gloves and say I quit. Somehow, we just see it to the very end . . .*

Here, the context may prove crucial (see e. g. Czarniawska & Joerges, 1996; Nespore, 2002; Shaeffer, 1994). Finnish basic education, rooted in the recent history of participative development work and a culture of equality and trust, was appreciated by the interviewees as a firm basis on which to build participative work. Furthermore, reforming the curriculum was considered an important process for strengthening, (re)defining and further developing the school system, and coherent development work was described as a precondition as one interviewee reflected:

In my opinion, this has been a terribly strong line of the whole of our education policy, that throughout the time of comprehensive school for the last 40 years, not to have moved forward from side to side with sudden turns and abrupt changes, but the development has been moderate, pretty streamlined.

Further, this cultural specificity might have been one important aspect in guiding the decision-making towards a constructive, coherence-making attitude towards the work and partial enrolment already as a basis for the work. Therefore, it was possible for even the most powerful and critical representatives of the educational field to engage in the network, in their roles as actors in a sustainable, stable school development network. All interviewees agreed that it was a pleasure, even an honour to be able to participate in the reform: *'It's kind of being part of Finnish school history, and thus a very pleasant task'* as one of them stated.

Enrolled to take shared responsibility

Most of our interviewees talked about the curriculum as personally *meaningful* to them after all the tough compromises they had to make. The following enrolment-oriented comment was from an

interviewee whose 'big idea' for the curriculum was not accepted and who was somewhat disappointed with their lack of opportunities to make an impact in the reform:

After all, people do this. When you read it, the core curriculum, you won't necessarily understand the amount of big and extensive work that's behind it. During the steering group period, its [the work's] importance grows, and you form almost like an artists' relation to it, a relationship of it being like . . . your own child that is being born – even if it's not personally written from cover to cover . . . But a relationship is created with it and you kinda wait to see what it will then really bring in the field in the future.

The above citation reflects the attitude present in many of the interviews: the steering group members were more than practicing interessement to resolve problems they considered important for themselves as representatives, they were enrolled to take *responsibility* for education in general (cf. Bergström & Diedrich, 2011). Originally, the participants of the reform network were invited as representatives of their home organizations and networks, but via the interessement process, they were translated into change agents (cf. Fullan, 2007), aware of the complexity of the change, committed to do their best in decision making, ready to enrol in the collaboratively-problematized curriculum and support the mobilization of the reform they described to be meaningful to them—or even more broadly, the new direction of Finnish basic education and Finnish society. The work was about constructing and stabilizing a system of alliances (Callon, 1986) and, at some point in the negotiations, participants—partially filled with enthusiasm, partially disappointed with the outcome—accepted their roles, the decisions, and the reformed curriculum. One of the interviewees explained it like this:

The core curriculum is like a meat grinder that separates out the needs of society, research, policy orientations, or the changing world – the grinder spins and produces this strategy that is . . . A one national truth. It is a bit dangerous to say so, as there is no one 'truth', but you must understand what I mean – that we somehow create this common view, a shared goal, and aim at fulfilling that in the implementation at the local level.

A central element of this responsibility seemed to be a shared understanding that the importance of the work stemmed from how well it can serve the local level, the schools, and especially the children. As one interviewee asked, reminding us of the purpose of the work: *'Whose goals? Whose curriculum is being implemented?'* Although the core curriculum is a national steering strategy and involves many networks, the focal point of the reform work was centred on the everyday school reality. As summarized well by one interviewee: *'The process has made me think that we somehow have a kind of shared responsibility for the school day'*. Based on the interviews, we suggest that this sense of responsibility was present in all the interviewees and may have served as a bridge to prioritize the work and overcome at least some of the contradictions, tensions and disappointments. Instead of sticking to multiple, contradicting purposes as the basis of basic education and trying to bridge them even partially, a clear goal was identified—to build a coherent basis of shared values on which to make our children's everyday education the best it can be. The implementation phase would reveal whether this curriculum reform network succeeded in igniting mobilization or led to dissidence.

Participation, translation, and the challenge of educational change

This study provided us views on participation in a national curriculum reform, the FCCR2014, examined from the perspective of interessement, the third moment of translation, and based on the steering group members' interviews. Firstly, we analysed how participation brings essential complexity to the reform as different participants participate, bring in and pursue their own interests and try to persuade others to join them. This results in a desirable mess, full of actors, details, opinions, tensions, links, interaction, problems, arguments, and solutions from different levels and perspectives of the educational system and society. However, within this complexity there is already a seed of coherence; interessement is not only a process that produces complexity but also coherence, as pointed out in this study.

The results showed us how coherence can grow out of complexity within the reform process—and even needs it as a basis for growth. As the participants had opportunities to practice interest and witness others' interest, they came to learn more about themselves, each other, the issues under debate, the complexity of the curriculum network, and change in general (cf. Palomäki et al., 2019; Soini et al., 2021). Based on this, they proceeded in the work by including, excluding, combining, and organizing issues through communication, interaction, and repositioning themselves. Going through this collaborative process of getting to know the network, organizing the complexity, and finding the meaningful elements, is important for the participants to be able to define the main content and the boundaries of the network, to form a relationship to it, and to enrol—and later, to mobilize the curriculum. Without genuine interest and participation, the reform lacks this opportunity to build coherence in the system.

Furthermore, while the national curriculum is reformed nationally, the true test takes place in the everyday translations in the field (Soini et al., 2021; Tatnall & Davey, 2001): if the system acts according to the curriculum, the network lasts, if not, the network disperses through non-commitment and dissidence. Such mobilization requires enrolment, which is the result of a successful interest process, it cannot be handed out to actors (cf. Czarniawska & Joerges, 1996) but evolves as actors actively form and accept their roles in the network. This translation process takes place in all levels of the system, over and over again, and, needless to say, a wise and considerate, participative national curriculum reform process is a strong factor in making beneficial changes. A balance in the level of detail in the reformed curriculum is needed because as discussed, too messy or detailed national curriculum could potentially hinder implementation. Providing space for genuine participation and translation in all levels of the system proves important in supporting successful and responsible system-wide change.

The results provide us a practical view on why sustainable, lasting, successful change cannot be authoritatively forced in a system, such as the education system, but is by its nature networked, collaborative and shared (cf. Fullan, 2007; Fung, 2006; Kujala et al., 2019; Shaeffer, 1994). Therefore, the responsibility of national educational leaders in igniting participation and system-wide change is evident. Just as the problematized reform process as an interest device was the obligatory passage point (see e.g. Callon, 1986) of the curriculum-making and only via entering into, attaching to and utilizing the reform process were actors able to participate in reforming the core curriculum document (Law, 1992), so are national reforms opportunities to invite the whole education system to the shared conversation and effort of drawing up the needed guidelines for basic education. Leaders can either build participative, open system-wide reforms and broad public debate with their leadership—or impede and suffocate participation and deliberative work (see Kujala et al., 2019, Salonen-Hakomäki et al., 2023). Either way, the continuous translation of the system cannot be nullified, but its effects are visible in the processes of change—whether the leaders consider the system-wide translation during the reform or not.

Finally, as Pinar (2011) has stated, curriculum is a complicated conversation—ongoing attempts to understand each other, and what is good. As an interviewee of this study stated, we have a '*shared responsibility for the school day*', so, despite all individual interests, the focus needs to be on children, on providing them the best possible education (cf. Fullan, 2007). We must look for the 'good' and the 'right', and that is a societal conversation worth participating in.

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ORCID

Sanna-Mari Salonen-Hakomäki  <http://orcid.org/0000-0001-8981-9060>

Tiina Soini  <http://orcid.org/0000-0002-0637-8931>

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