

Dealing with the Unexpected: Organizational Sensemaking within the Scope of Collaborative Leadership

Hong Wang

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Department of Education
Institute of Educational Leadership
University of Jyväskylä

ABSTRACT

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Finland is now witnessing a nationwide curriculum reform, which highly demands the understanding towards organizational sensemaking in such dynamic context. This study aims at guiding the group members to better interpret the ongoing process of organizational sensemaking in an educational change climate.

Web-based survey was designed to investigate how subjects process the new information, interact with one another and share the common understanding in the curriculum change process. 12 participants were invited to present their comments towards the work done by the leading group so far.

Collaborative leadership in this case study does positively support the flow of organizational sensemaking in educational change process. Teacher-subjects are more willing to accept the new information if they received enough support from the leaders, they also prefer to have casual and cosy interaction with one another. Moreover, teachers are likely to have diverse approaches on sharing their ideas with others. Leader-subjects support the teachers by increasing the readiness of articulation, as well as frequently organizing discussion and sharing.

The results of the qualitative research reveal that collaborative leadership significantly supports the development of sound organizational sensemaking during an educational change, such as the curriculum reform.

Keywords:organizational sensemaking,educational change,collaborative leadership

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1 INTRODUCTION

Sensemaking is socially constructed in organizations, which allows individuals to deal with uncertainty and ambiguity (Maitlis, 2005). Sensemaking occurs in organizations when members confront events, issues, and actions that are somehow surprising or confusing (Gioia & Thomas, 1996; Weick, 1993, 1995). Additionally, it is one of the critical activities in organization (Weick, 1995), which concerns various tasks and problems for individuals in educational organizations. Moreover, the tasks are various depending on the positions in the group. For instance, the key tasks for leaders (principals, superintendents, and deans) might be the environmental scanning and issue interpretation (Gioia & Thomas, 1996; Smircich & Stubbart, 1985; Thomas, Glark, & Gioia, 1993). The rest members are mainly concerned with how to construct their own identity during sensemaking process, as well as how to respond to organizational change (Pratt, 2000; Gephart, 1993).

In the case of new tasks, organizational sensemaking also plays a significant role in educational organizations, especially in the dynamic contexts (Weick, 1993), since creating and maintaining the coherent understandings are generally needed when individuals are dealing with new information. Though a considerable amount of literature has been published on organizational sensemaking dealing with various issues, such as daily management (Allen & Penuel, 2015; Brown, 2000; Evans, 2007; Gonzales & Rincones, 2011; Louis, Mayrowetz, Smiley, & Murphy, 2009; Marsh & Willis, 1995; P. D. Scott & Weick, 2001), sensemaking studies in education are rare. Recently, there are certain studies that have placed special focus on leadership sensemaking (Allen & Penuel, 2015; Balogun & Johnson, 2004; Evans, 2007; Louis et al., 2009; P. D. Scott; S. Scott & Perry, 2012). Consequently, research of sensemaking in educational leadership is in focus.

This study concentrates on sensemaking in the Finnish educational leadership. Finland is now witnessing a nationwide curriculum reform. In the Finnish context, the local curricula are designed on the basis of the national core curric-

ulum (Vitikka, Krokfors, & Hurmerinta, 2012) where the targeted objectives, contents, missions, values and structure of education are included. Therefore, the national core curriculum is regarded as the most important document that articulates the needs of teachers, schools and students (Seikkula - Leino, 2011). Because of its importance, a close study of how to support the organizational sensemaking in the course of curriculum reform is warranted.

This qualitative research is based upon an in-depth study of a project group which was demanded, by the local administration, to generate the local curriculum in the central Finland. The members of the leading group represented many different schools. More than 25 people were included to assist the curriculum reform process, and 12 of them would be the informants in my research. The leading team is in an urban city in a fast growing economic area. The organizational sensemaking is of importance, since the instructions guiding these educators of conducting curriculum reform are limited, and the context and process of the curriculum reform is dynamic. As regards the preceding discussion suggested by Maitlis (2005) and Weick (1995), the shared understanding plays a significant role in dynamic situations. Furthermore, the shared understanding can create sensemaking that is less likely to tackle the problems in some complicated pictures.

Since human interactive sensemaking occurs in interdependent domains, the agents including each group member in the educational organizations call for the leadership of collaboration. Hence, this research seeks the mechanism supporting organizational sensemaking from the perspective of collaborative leadership which is not characterized by a leader-centered point of view (Jäppinen, 2014). Instead, it emphasizes the process as an emerging one. Therefore, seeking a wiser leadership style during the reform process is one of the focuses in this paper, since leadership receives particular attention in educational change (Dutton & Jackson, 1987; Smircich & Stubbart, 1985). How they collaborate and lead a reform together will powerfully affect the ongoing process of organizational sensemaking. Vagueness, confusion or even uncertainties often emerge in this reform. A qualitative methodology is adopted in this research,

since all the research questions are concerned with empirical inquiry to test out theoretical ideas that inform practice (Poole et al, 1989), for example, how to examine the informants' real feelings and comments. The qualitative methods are suitable to the study of dynamic processes, where all the processes are made up by personal's interpretations (Gioia & Thomas, 1996). Based on the seminal theories written by Weick (1993; with Sutcliffe & Obstfeld, 2005; 1995), a two-section online survey is designed to seek the status quo within this project group. Principals, superintendents, coordinators as well as teachers are involved in this survey, at least 16 subjects will be demanded to answer the questions.

To sum up, the aim of this paper is to develop a sound organizational sensemaking within the curriculum reform project, especially towards the policy implementation section.

2 SENSEMAKING

This chapter reviews recent research of organizational sensemaking within the scope of collaborative leadership, as well as the Finnish curriculum reform.

Much of the studies have investigated the mechanism, procedure and the impact of sensemaking (Allen & Penuel, 2015; DeMatthews, 2012; Evans, 2007; Gonzales & Rincones, 2011; Paul & Reddy, 2010; Rigby, 2015; Smerek, 2013; Weick & Sutcliffe, & Obstfeld, 2005). Some of them conducted the research by discussing the organizational sensemaking combined with various leadership styles (Dooner, Mandzuk, & Clifton, 2008; Gunawan, Alers, Brinkman, & Neerincx, 2011; Heck & Hallinger, 2010; Louis et al., 2009; Waugh & Streib, 2006). However, when it comes to the educational organizations, the literature on how to support the process of sensemaking is under-examined. Nevertheless, the recipe supporting sensemaking is of great importance, for it sheds the lights to the organizations when the individuals share the understanding of common but complex as well as ambiguous experiences they have had in their organizations (ranging from curriculum reform to academic performance of learners) (Krumm & Holmstrom, 2011). Generally, current sensemaking studies have not focused enough on educational context and particularly not on educational leadership.

Thus, this paper studies how the group members enhance the collaboration in educational organizations and make sense of certain issues, such as the curriculum reform in a dynamic context. It also investigates how sensemaking is being supported within the scope of collaborative leadership. In this paper, collaborative leadership is understood as a holistic entity which can be modified through human interaction (Jäppinen, 2014).

2.1 Definition of Sensemaking

Sensemaking has been defined from many perspectives, while researchers have not treated sensemaking in much detail in educational organizations, including educational leadership. In general, sensemaking serves as the platform interpreting the situation that can be explicitly comprehended in words and that can guide people to act (Weick et al., 2005). It basically can be defined as the cognitive process of people to understand everything and then to respond (ibid.). Also accounted by Weick (1995), sensemaking is the process of making sense the unknown by placing stimuli into certain framework, enabling people to comprehend, explain, attribute and predict. Hernes and Maitlis (2010) hold similar statement towards sensemaking, indicating that sensemaking is an ongoing process which allows people to process thinking.

In the following sensemaking will be opened up from the perspectives of *means, characteristics and change*.

2.1.1 Means of Sensemaking

The approaches of sensemaking are various, including spoken and written, and both formal and informal, (including conversations, utterances, documents and storytelling) (Boje, 1991; Boje, 1995). In the course of making sense, vagueness might occur due to misunderstandings and insufficient interaction, while vagueness might result in dissonance which leads people to think, interpret and act differently. Some people might start to act in a rather intuitive way, trying to make sense of what is going on around them by their primitive convention (Brown, 2000; Johnson, Smith, & Codling, 2000; Weick, 1995). As one of the common reactions of vagueness, uncertainty might cause the collapse of the organizations, since individual's interactive competence has been blurred with unexpected situations. Additionally, as summarised by Gioia and Chittipeddi (1991), sensemaking involves giving envision, signal, revision as well as energy. Also, similarly, Kezar and Eckel (2002) argue that there are five core features existed in the course of sensemaking in educational organizations: administra-

tive support both from senior managers and staff, collaborative leadership, implementation, and robust design.

Next, sensemaking means will be supplemented by adding certain specific features including intra-organizational cooperation, conversations, public presentations and external speakers.

2.1.2 Characteristics of Sensemaking

Drawn from Weick's (1995) framework of sensemaking, this chapter illustrates certain its properties. Initially, Weick regards sensemaking as a socially constructed norm in people's cognitive field, as it is not a one-side achievement. Conversely, it is an ongoing process based on the interplay among individuals (Evans, 2007). It is the thing developed in people's mental development. Furthermore, the ways that people interpret and behave are highly constructed on their prior experience, including the values, assumptions, beliefs, as well as their own anticipations (Weick, 1993). Hence, people usually comprehend the events on the basis of their own experience. Additionally, the reaction of individuals depends on the cues that they received from various contexts, which means that people collect scattered information to make sense the intact situation, just like playing the jigsaw. Moreover, Weick finds that sensemaking provides the framework for social-acceptable actions and behaviours (Evans, 2007). To sum up, sensemaking has been depicted as the cognitive procedure guiding people to act and think unconsciously in their daily life (Weick, 1995).

2.1.3 Change and Sensemaking

Keeping the information in an order manner is one of the natures of people. Disorder brings an uncomfortable sense. The uncomfortable feeling might dominate people's mind when the reality is in disaccord with the convention (including the values, knowledge, and behavioural manner). Thus, the uncomfortable sense drove individuals to re-establish the solidarity and order of the convention (Festinger, 1962). The mechanism of sensemaking is in a way related to

this cognitive process, making sense of the unknown situation, such as a curriculum reform. As one of the occasions for sensemaking, change brings the opportunity to reform and to make improvements. Nevertheless, very little is known about sensemaking in educational organizations, particularly, in the dynamic context. Several studies have shown their interests on the influence of organizational sensemaking, which is also discussed in this study.

2.2 Organizational Sensemaking

Sensemaking is crucial in modern organizations, since deeper understanding of the issues that we experience with other people with whom we work helps the collaboration proceed more smoothly (Ancona, 2012). In the educational organization that values people; educational leaders must regard sensemaking as an important feature in leading the whole group.

Sensemaking is often demanded when our perception of the world becomes unintelligible (Heifetz, 2009; Chia, 2000; Weick, 2001) especially during dramatically dynamic periods, such as an educational change that could not be understandable without sensemaking. A classic example of sensemaking is given by Weick (1993, pp. 628-652) who described the Mann Gulch fire disaster causing the death of 13 men. The fire disaster started with a lightning storm, and over 16 fire-fighters were sent to extinguish the fire. In the middle of the firefighting activities, the organizational sensemaking was collapsed due to unclear improvisation, and interaction among group members. 13 of them were lost their lives in Mann Gulch fire disaster. The result has perfectly highlighted the importance of organizational sensemaking: if the leadership style cannot be accepted or understood by the rest of members, then, when the unexpected and imperative events strike the group members, the unknown situation could lead in serious crisis to the whole organization. The lesson drawn from Mann Gulch indicates that we need to re-examine our thinking towards intergroup activities and temporary systems. As for the context in this research, organizational

sensemaking plays a significant role in the middle of team building process as well as other related issues.

2.2.1 Sensemaking in Educational Organizations

Organizational sensemaking is initially promoted by Weick (1995). Apart from Weick, the theory of organizational sensemaking is also inspired by certain scholars with their inclusive arguments of organization, mainly from three perspectives. 1) Weber (1947), Simon (1957) and Scott (1987) define it as a series of goals collectively pursued by individuals, suggesting that the organization is established because of the needs of collaboration and fully formalized social structure. 2) Moreover, the collective goals of organizations have been extended to the 'natural system' since Scott (2012) regard that it is of nature that group members will share common interest to secure the survival of the organizations. 3) Thirdly, the organization is an open system (Boulding 1956; Katz & Kahn, 1978; Scott, 2012), which welcomes the new and diverse information.

Weick argues (1976) that comparing to the contexts in other settings, a school is more flexible and less tight-fixed environment, which might lead to loose management. More specifically, loose forms of coordination and autonomy firmly affect teachers since making sense of the organizational life is one of the outstanding tasks for them (Nordholm, 2014). For instance, the autonomy and coordination might be less in other countries while the situation in Finland is in the opposite, which will be explained in further chapters. Though the concept of sensemaking has been extended its range to the educational organizations, quite few of them discuss about supporting the ongoing process of sensemaking, which is heatedly discussed by some scholars for enhancing the effectiveness in the dynamic context, particularly in the educational curriculum reform.

There are a great deal of sensemaking research concerning with the learning performance, and information seeking field in the educational organization (Ketelaar, Beijaard, Boshuizen, & Den Brok, 2012; Nordholm, 2014). The study by Smerek (2013) examines the recipe on dealing with sensemaking from the

aspect of novice principals. The research context is in the transition process of one target school, investigating sensemaking process of new college presidents as how they interpret the way of understanding the dynamic environment. Nevertheless, a systematic analysis covering teachers and educational leaders is still lacking.

In another study conducted by Evans (2007), only the leaders' sensemaking is examined. The focal arguments of this research are based on the race and demographic changes, which might bring its efforts in an internationalized perspective. Moreover, to determine the framework of implementing certain reforms in educational organizations, Andrew (Krumm & Holmstrom, 2011) and his colleagues investigate the lenses for understanding "what" and "why" people interpret the same policy in various ways. The core task of their study is to strengthen the stages of enactment and justifying. Likewise, Carrie and William (2015) highlight the analysis of interaction, interpretation as well as ambiguity of organizational sensemaking when educators focus on new standards of curriculum. The interactive process has been highly stressed in their studies, since it affects the teachers in terms of making sense of the new information in their daily job. Additionally, the strategies of conducting teaching practices have also been mentioned in this research. Despite the specific strategies, the researchers highly centre on the reform on pedagogy. For instance, they are trying to find out how the teachers rearrange the teaching practice in terms of new curriculum.

Similarly, commenting on the subjects in organizational sensemaking, Weick (1995) suggests that sensemaking-related studies should be centred particularly on the leaders, because they are usually struggling with structures, processes and environment. In this paper, the research point started from the leadership adopted by the leading team to support the organizational sensemaking in the course of curriculum reform.

2.2.2 The Properties of Sensemaking

In practice, organizational sensemaking covers many properties. Based on the characteristics of organizational sensemaking summarized by Weick and Sutcliffe (2005), including identity, noticing and bracketing, labelling, retrospect, enactment, communication as well as shared understanding, this paper studies the properties of *retrospect, social context, identity, ongoing process and enactment*.

Retrospect

The problem of how individuals normally react under the most urgent and pressured settings has been analysed by Weick (et al., 2005). He uses the term “retrospect”. What Weick (ibid.) argues is that individuals would initially think how to solve the current situation on the basis of their prior experience, rather than impromptu making one. To better understand the mechanism of retrospect, Weick (2005, p. 412) proposes that “how can I know what I think until I see what I say”, and “how can I know what I am seeing until I see what it was”, indicating that people can draw lessons from their own experience, and also can diagnose the mistake in their work in accordance with the prior experience. To sum up, the function of the experience can be categorised as complex cognitions of the experience of ‘now’ and ‘then’ (Paget, 1988, pp. 96-97).

As one of the key natures of sensemaking, retrospect indicates how individuals look back and attribute meanings. Also, retrospect emphasizes the skilful and complicated reasoning of action, since most of the reasoning are tacit. Smerek (2013) has concluded the sequence of action, preferences, principles and values as below: action comes first before the well-established values, principles and beliefs. Organizational behaviour is not shaped by a goal, but it depends on how the whole organization interprets the goals. What we have done attributes the meaning to our cognitive understanding. Hence, the long-lasting values guide individuals to act when they confront with certain unfamiliar problems. Unlike the obvious statements described by Smerek (2013), most of people are unaware of the impact of retrospect, since it is too tacit to know.

To specify the complicated situation in the group, Weick (1995) also explains the retrospect from the perspective of collaboration, since the stability and predictability are maintained by the shared history and culture in the organization. Some scholars also argue that the conflicts might be found in the shared history (DeDreu & Weingart, 2003; Westheimer, 1999), for instance, the cognitive conflicts always accompany with the problem-solving phase. Additionally, emotion is another main source of disorder, for it might result in angry, distrust and friction, which makes the group members unwilling to tolerate differences and be unable to trust others (Amason & Schweiger, 1997).

Social Context

Social context is the main source of sensemaking, which constructs the meanings for individuals (Weick, 1995). However, previous published studies investigating sensemaking in educational context are limited. The categories of social context are various, including face-to-face interaction and other tacit communication. The effectiveness of sensemaking could be enhanced by face-to-face communication. Furthermore, there are a number of means of communication which could be readily perceived by other members. Conversely, the body language is hardly perceived through non-visual communication. In the same vein, Lounsbury and Glynn (2001) note that the behaviour, broad cognitive, normative and regulatory forces of the group members are formed by powerful medium, such as the mass media, politics, education and the social conventions. Briefly seen in Scott's explanation, organizations can be understood in the social and cultural context.

As for the educational context in this study, individuals might confront with several obstacles as they are influenced by a variety of social factors. These factors might include previous discussion with other teachers or school leaders. Additionally, previous mentoring also is covered by the social factors.

Identity

A number of researchers believe that multiple identities also compose the organizational sensemaking (Albert & Whetten, 1985; Dutton & Dukerich, 1991; Weick, 1995), because of the demands of self-efficacy and the self-consistency. The components of identities could be various, ranging from organizational culture to individual's personality. The identity can be respectively divided into individual level and the organizational level. At the individual level, people are collaboratively trying to find "who am I" (Weick et al., 2005, p. 416). As for the organizational level, group members try to ask "who are we?" (ibid.). When it comes to the context in school, the identity issues might individually or organizationally affect the ongoing process of sensemaking.

The importance of identities in sensemaking has been clearly explained by Weick (1993). He has described the forest fire in Mann Gulch. Each fire extinguisher has individual and unique identity, such as the decision-maker, coordinator and the member. However, all the identities collapsed when the crisis immediately scattered the group. The collapse of the identities affected seriously sensemaking in the outfit. In the midst of extinguishing the fire, it is not easy to find the escapes route without the collaboration, because the identity has been disturbed, thus, nobody is capable to find their own identity. Weick (2005) also emphasizes the importance of the role system. If one of firemen was able to shoulder all the roles, and was able to arrange the escape routes and articulate the commands by collaboratively re-facilitating the role system. Then, people are bound to re-group. The reconstruction of the identity would be possible even the time is limited (Schutz, 1961).

The lessons drawn from Mann Gulch can also be found in Coopey and others' (1997, p. 231, cited in Weick et al., 2005) studies. They suggest that members will attempt to make sense of ambiguous problems in accordance with their identity needs. Nevertheless, they do add the personal experience with their 'identity', as individuals' memory serves as the established patterns of meaning and behaviour. As in this study, leading team members who work in different positions in different educational organizations gathered together because of the curriculum reform. Their past teaching and learning experiences,

which consistently maintain their previous identities with their desired future identity, might influence sensemaking process inside the educational group. Thus, sensemaking occurs both at individual and organizational levels. (Smerek & Ryan E, 2013).

Ongoing

Sensemaking is labelled as a continuous process, which normally starts with chaos (Weick et al., 2005). As Mintzberg (1973) puts it, sensemaking indicates that we are always in the middle of events. It is important to note that people would select cues from this flowing process. Since individuals are likely to bracket their own experience (Schutz, 1976), they will readily select the cues in order to memorize or label the event. Nevertheless, though many scholars know that people will use certain cues to help them having closer attention towards things, few researches has investigated the law behind these cues, and less fewer in educational contexts. For example, why some people remembered the completed paper work and charts at their first job day. But the others only can recall the flavour of the coffee that they drank at their first day.

The ongoing sensemaking also involves labelling and noticing, which are the incipient state of sensemaking. Individuals' labelling and noticing are usually guided by the mental models which are based on the previous working and life experience (Weick et al., 2005, p. 411). To sum up, Weick and others (2005) argue that individuals are more likely to receive the vital signs that are at variance with the normal ones.

Weick (2005) notes that labelling and bracketing (to consider two or more people or things as being similar) as well as noticing are the main means for individuals to stabilize the streaming of experience, which mirrors the theory that sensemaking is an on-going process. Thus, from the perspective of organizations, the fluidity should be valued, rather than the content of sensemaking.

Enactment

In addition to the cognitive mechanism and social related features of sensemaking, it is also of importance to figure out how individuals take actions in the reality. Weick (1983, p. 228) suggests that the order is not revealed by the well-existed guidance, but on the leaders' anticipation. Thus, as in the educational context, individuals normally do not know the result of their orders until they implement it. Conversely, they want to take actions before justifying why those actions were taken (Smerek, 2013).

Weick and others (2005) has noticeably demonstrated that sensemaking is also about taking actions as actions reflect the understanding of sensemaking. Additionally, Weick's (ibid.) research reveals that talks lead to shared understanding, while the more persuasive talk is cantered in the organizational action. He also specifies the sequence of talk and action. In fact, he suggests that there is no definite sequence between talk and action, either of them could be the starting point. However, the context discussed in Weick's (ibid.) studies is based on medical context, which demands quicker actions of the members.

The enactment also closely relates to decision-making stage, since decisions are either made by the knowledge that group members have about to implement or understand, or made by the orders approved by others (Burns & Stalker, 1961). Curriculum process is a good example of decision making. As for the distinction between sensemaking and decision making, sensemaking centres on how individuals enact the environment, while decision-making draws on the evaluation process (Brunsson, 1982;). For certain scholars (Snook, 2000; Weick et al., 2005), the concept as well as the practice of sensemaking are more than decision-making, for it involves holistic, ongoing flows of experience. They also suggest that the focus on decision-making tends to blame who made the bad decision, rather than on the flow of subjective experience leading to an event. Weick (1995) also has downplayed the role of individuals as rational actors, positing that people's behaviour is verbalized. To sum up, Weick suggests that individuals discover their preferences by taking actions. As regards to this study, the enactment in sensemaking for school might continuously face emerging disorders, which have not yet been studied in recent researches. In the next

section, I will discuss organizational sensemaking from the perspective of educational change.

2.3 Organizational Sensemaking within the Scope of Collaborative Leadership

The central theme in this chapter is explaining the role played by collaborative leadership which is broadly considered as an open, complex, adaptive and fluid organizational process without clear boundaries (Jäppinen, 2011) in supporting the ongoing process of organizational sensemaking. In accordance to the oral discussion with Jäppinen on 30th, March, 2016, collaborative leadership is crystalized mainly into three parts. Jäppinen defines collaborative leadership as below: 1) It is a changing and dynamic process of leadership; 2) It creates synergy, i.e., the entity is greater than the sum of separate parts. Thus, collaborative leadership could optimize the potential of each one; 3) Collaborative leadership concerns interactive relationships between the group members, sharing power and involving collective learning.

Collaborative modes of leadership (Thomas & Hall, 2011; Hazy et al., 2007, p. 13; Plowman & Duchon; 2007; Hazy, 2008; Panzar, Hazy, McKelvey & Schwandt, 2007) have been articulated in several ways (as cited by Jäppinen, 2014). The overview of these studies indicates that leadership is the intrinsic property of human interaction (Hazy et al., 2007). Education is regarded as a shared activity of human interaction, while leadership should be a matter of everybody in the educational community (DuFour, 2004; Fullan, 2006; Hargreaves & Fink; 2006). Harris (2009) argues that any member of the organization can conduct leadership. Leadership does not belong to the leaders but everyone. You may be viewed as a collaborative leader as the moment you are thinking to make contribution to your group (Rubin 2002).

As regards to the educational organizations, collaborative leadership serves as an effective approach dealing with the unexpected problems, especially for the educational change problems (Fullan, 2009). Moreover, collaborative

leadership demands high level coordination, cooperation, shared understanding as well as communication, since these properties are crucial for the enhancing the effectiveness of an organizations. Overall, collaborative leadership could be regarded as a power for an organization's success (Jäppinen, 2014). Likewise, certain scholars have confirmed the positive role played by collaborative leadership in organizational management (Waugh & Streib, 2006, pp. 131-132).

In sum, this study aims to find out what the leaders could do to support the teachers' sensemaking in the course of educational change, such as the educational curriculum reform.

3. EDUCATIONAL CHANGE

The meaning of being changed stands for being new, as the change process is an ongoing flux (Fullan, 1991). As for the educational change, the meaning has been extended to the moral purpose as it brings the best knowledge to bear on critical issues of current days (Fullan, 2007, p. xiii). As summarized by Fullan (2007), the process of educational change is generally seen as initiation, implementation and institutionalization. Nevertheless, in practice, the phases are not linear but rather in flux, which brings the complexity for educators who are aiming to do the reforms. In this chapter, I will firstly illustrate the needs of conducting change. After that, the elements of having a successful educational change will be analysed. Moreover, certain obstacles which existed in the course of making change will also be argued in the last part.

3.1. The Demands of Educational Change

The change in educational field is inevitable, due to the demands given by the internationalization, economy and living style (Fullan, 2009). Levin (1976) has summarized that the sources of educational changes may come from three broad perspectives: 1) through natural disasters; 2) through external forces, such as the newly introduced technology; 3) internal contradictions, for instance, when the educational values and outcomes are differed. Fullan (1991, pp. 15-16) points out the purpose of making educational change: helping schools to efficiently accomplish their goals by replacing certain structures, policies with better ones. However, as illustrated by Fullan (2009), educational change, sometimes, does not stand for progress. More specifically, the biggest challenge for educators is to improve schooling, which will be discussed in further chapter dealing with the obstacles in educational change.

However, unlike the incremental needs of educational reform, many efforts have proved unsuccessful at reforming. While the competencies in society and working have changed, educational change calls for the skill that builds a

sustainable future (NBE, 2015). As one of the significant changes, curriculum reform positions itself in an outstanding place, where the direction of development of education is decided. Marsh and Willis (1995) highlight the need of change when individuals are talking about the development process. They also argue that curriculum reform can only be validated when it is implemented from vision to reality. Hence, the essential elements included in the developmental process cover the need for change, planning, implementation and even the acceptance of new knowledge (Marsh & Willis, 1995).

When it comes to the reform in Finland, the ongoing process at the time of writing this thesis started in 2012, and the new curriculum will be ready by August 2016 (Levo, 2014). The curriculum reform aims at providing a scientific learning theory of change and supporting schools as learning organizations (NBE, 2014). However, the process of making change is not simple due to certain issues, ranging from old habits, fear and even leadership practices. Thus, the phase of making change and organizational sensemaking is of significance in the course of the Finnish curriculum reform.

3.2 Elements Enabling Success of Educational Change

The National Board of Education has illustrated the strengths of renewing the curriculum, including the clear standards, abundant cooperation and trust, and the most importantly, the outstanding teachers and high ethical orientation; while the board also admits that the challenges might hinder the process: school culture, role of students, pedagogics, digital learning environments and the quality of learning process and results. (NBE, 2015)

The question of how to make change in a successful way is haunted in reformers' mind for many years, since enhancing the possibilities of being successful is one of the latent goals of the reform. In Marsh and Willis' notes (2003, pp. 196-197), both macro and micro level development should be taken into consideration when dealing with improving the successful rate. More importantly, Levo (2014) points out the way that how the leaders implement the

reform has played a pivotal role during the whole process, which greatly emphasizing the function of leadership. Unlike Levo's arguments towards leadership, certain scholars tend to stress that other features in educational organizations are also of essence, such as the shared culture, values, traditions. For instance, Fullan (2002, pp. 16-20) suggests that organizational culture could strengthen the results of curriculum reform in the long-term round. Similar notes are found in Dimmock & Walker's (2005, p. 11) work. They argue that common values, traditions and habits are shared in the school. Thus, each school is developing its own culture, which creates cohesion inside the organization.

In addition to the elements of making the reform being successful, there are other discussions concerning the implementation. Some scholars focus the final performance in the reform (NBE, 2013, pp. 32-34). For example, Suortamo (2014) suggests that change calls for new demands on leadership and school cultures as well, which mainly stresses the outcome of the change.

Furthermore, how to plan the change is also another buzzword in the curriculum reform. As for the resistant problem, Levo (2014) suggests that making smaller but concrete changes helps the personnel commit to the changes. Educational change also involves other challenges. Fullan (2009, p. 10) notes that rectifying the deficit in educational organizations is not an easy task, as members do not want to be slowed down by knowledge of change. And Fullan (2009) also suggests the forces that create effective and lasting change in education, which covers: people's moral purposes; capacity; understanding of the change process; learning cultures; cultures of evaluation; leadership for change; coherence; and the tri-level development. What the eight key factors referred is more than the strategy, but more on the process and strategizing. To sum up, making the change to be successful is not a single process and does not only involve leaders. Instead, complex features are powerfully connected.

3.3 The Challenges at the National Educational Reform

To begin, these challenges are the persuasive rationale that the project group needs for stronger and wiser leadership during sensemaking process. As I have mentioned in the previous chapter, educational change does not indicate progress (Fullan, 1991, p. 15). Sometimes, educational change introduced in the organizations might worsen the situation unintentionally. Thus, challenges is accompanied with the course of being change and innovative, since the change and innovation do not always guarantee success. Conversely, the absence of change and innovation ensure failure in the educational field. Thus, the process of conducting Finnish core curriculum reform inevitably is facing several challenges.

Fullan (1999) and Adams (2000) suggest that, the proper approach of enhancing the possibility of being successful combines the decentralized and centralized model. Either model of the approach involves all parties (including parents, teachers, students as well as schools) during the process, which would bring about a great deal of discussion and debates. However, much more discussion and debates are likely to be a breeding ground for confusion and uncertainty. During the reforming process of the Finnish core curriculum, certain dynamic issues might happen as the upcoming reform is based on the multiparty approach (Boje, 1995; Seikkula - Leino, 2011) .

In addition to the interactive problems, a curriculum reform also involves pedagogical challenges: teaching and learning, which cover the subject contents, didactics, pedagogical development, and evaluation (Flouris & Pasiás, 2003). As one of the tasks of the pedagogical issues, educators need to consider how to make the right choices both suitable for teachers and learners.

In the case of the Finnish core curriculum reform, the national guidelines serve as the beacon to direct the development path for local authorities. Thus, integrating cultural elements into the local curricula could diversely result in the outcome (Seikkula - Leino, 2011). There are certain sources that might hinder the trans-cultural process. For instance, various economic conditions might

lead to different backgrounds for curricula designs. Moreover, national guidelines might not correctly reflect the needs of localities, such as the nature, work style, or ICT resources. Additionally, the administration at different levels also plays a major role in this localized process, since decisions made by the higher level have stronger influence on the lower level (Atjonen, 1993, pp. 30-31).

In conclusion, organizational sensemaking is of importance in educational change, for it not only tackles the problems existed in the course of reform, but also for it would have an improvement for the further curriculum reform work. Hence, to better explain the function of organizational sensemaking, a specific example will be illustrated in the next chapter. I will use the Finnish core curriculum reform as the starting point.

3.4. Finnish Core Curriculum Reform

In Finland, the national core curriculum is the framework for the local curricula. It contains the objectives and core contents for teaching as well as the mission, values, and the structure of education (Vitikka et al., 2012). Thus, the national core curriculum plays dual role in the educational reform, both academically and administratively. Teachers are allowed to design their own teaching materials based on it. It is also an official document illustrating the key points of education (Vitikka et al., 2012). The process of Finnish national core curriculum became decentralized in 1994. Local municipalities are given more autonomy on making their own decisions. This research is based on the guidelines of the 2016 core curriculum reform. Certain issues concerning about the organizational sensemaking in the course of reforming will be discussed in further chapters.

The Finnish 2016-2017 curriculum reform is trying to build the future and address future challenges. Thus, strong leadership and great deal of shared thinking are desperately demanded during the process (NBE, 2015). According to the official document released by the National Board of Education in 2015, the latest reform is carried out as a whole project starting from the end of 2012 till early 2017.

The curriculum reform is implemented on three levels: school, education provider and national. In the school context, the reform concerns issues of pedagogical leadership, goal-oriented development of the school culture, together with the school-based curriculum. Local authorities are more likely to focus on strategic leadership and management, as well as local curriculum, resourcing, monitoring and development. As a whole, the National Board of Education provides the general guidelines on the core curriculum, education acts and decrees; government decrees, development plan and the related policy (see more details in Figure 1). Vision, action, teacher education and standards are the main questions that needed to be solved in the 2016-2017 national curriculum reform.

Figure 1 Accountabilities within the curriculum process (NBE, 2015)

School Level	<ul style="list-style-type: none"> ● Pedagogical leadership ● Goals leading the development of school culture ● Realization of the school-based curriculum
Education provider(Local authority)	<ul style="list-style-type: none"> ● Strategic leadership and management ● Decisions on the local curriculum ● Organization, resourcing monitoring and development of local efforts
National level	<ul style="list-style-type: none"> ● National core curriculum ● Education Acts and Decrees, Government Decrees ● Education policy guidelines ● Development plan for education and research

Comparing to the previous reform in Finland since 1970s, several alterations had been made in order to adapt to the dynamic situation. The alterations include the early childhood education act, pupils' welfare act, genders' equalities, entrepreneurship, social skills as well as democracy, empowerment (NBE, 2015).

The preparation of making the guidelines started in late 2012. A general guideline was offered to give brief instructions to the educators. While in early September 2013, an open consultation was kicked off in terms of early childhood education. The basic and voluntary additional education was consulted in April 2014. The whole curriculum was being outlined in various workshops supported by online consultation groups. The local authorities were requested to give feedback towards the process. As for the key stakeholders, their official opinions were given during the autumn of 2014 (NBE, 2015). The preparation work has been done during many years and earlier than the official document was pressed. Unlike the well-prepared beforehand work, the reality does not smoothly go. Apart from the goals, timings as well as the criteria, less official instruction was given to local authorities. Thus, local educators are still struggling with the reforming part. (The timetable of national core curriculum reform in Finland is displayed in Figure 2.)

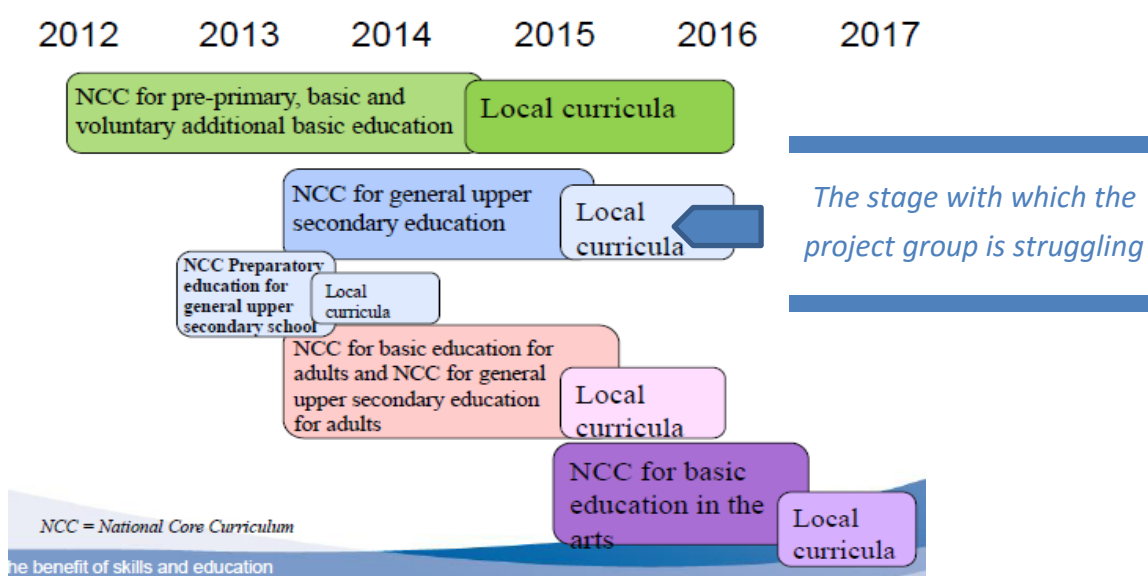


Figure 2: Curriculum development work 2012-2017(NBE, 2015, p. 4)

4 RESEARCH PROBLEMS

Unlike the increasing awareness in organizational sensemaking, we have limited research about how to support the ongoing process of sensemaking in educational organizations. To be more specifically, it is rare to find literature dealing with organizational sensemaking within the scope of collaborative leadership, especially in an educational change process. Therefore, the research purpose of this research is to probe the educational leadership sensemaking in the course of an educational change, such as the national curriculum reform.

Based on this research aim, the main research question is formed as

How educational leadership sensemaking is manifested in the midst of an educational change process?

The core research question is crystallized into two sub-questions:

1. What are the approaches used for supporting the organizational sensemaking process?
2. How do educational leaders foster collaboration in the change process?

The qualitative method was utilized to answer these research questions in this study. Although the qualitative research has been defined in various ways (Creswell, 2003; Lichtman, 2006; Bogdan & Biklen, 2007), it is a relatively new field in education. Its features can be summed as: naturalistic, inductive, interpretive, and flexible (Tian, 2011, p. 35). As regards the context in this study, the qualitative research was adopted because of the following reasons:

1. it centres on the complex and tacit interaction among individuals, which cannot be easily addressed from the perspectives of gender, race, as well as economic status;
2. it provides opportunities for researcher to know the personal interpretation of each member; and the reflection of them is unique. Thus, the data collected is more than numerical stuff;

3. it allows to better study the dynamic processes of the case group;
4. it could determine the causes of a particular event, in this study, it might assist to find out the influencing factors of organizational sensemaking in an educational change.

5 IMPLEMENTATION OF THIS STUDY

This chapter consists of the description of research questions, research approach, as well as data collection and analysis. This is a qualitative study led by an online survey and carried out in the central Finland. Several themes were extracted from the survey by the content analysis approach.

5.1 Subject and Approach

In this research, the qualitative methodology was utilized as the main approach to find out essential features for organizational sensemaking. The ongoing process of sensemaking was investigated as a case study during the national curriculum reform by analysing a team consisting of educational leaders in the central Finland. The qualitative method collected the virtual questionnaire of interviewees from a multilevel project (members come from various educational organizations with various positions).

The benefits of doing the case study have been discussed in Patton's (1982) work. He explains how the case study serves as a valuable approach to support the researchers to find new information about certain topics. Applying the case study approach, it is a viable means to solve accurate problems. Individuals can get exact lessons and experiences from the case study, not just some written words of abstract and vague theories. In addition, participants' real experiences, interactions and social knowledge were examined during the process (Levo, 2014),

The measurements of doing qualitative research are various, ranging from face-to-face interview, survey, observation and other visual documents. The research questions and resources' availability determine the research method (Tuomi & Sarajarvi, 2012, p. 71). In this research, an online survey was chosen as the measurement to analyse a case group in the central Finland, as analysing the case study was a reliable approach to deepen the understanding towards the unique context. When the subject of my research was selected, an infor-

mation-oriented sampling was used. More details about the sample will be presented in the next chapter.

5.2 The Participants and the Research Process

The research was conducted in a reform-leading group. Participants come from different positions in various organizations. The research context was a city in the central Finland. Before selecting the sample in my study, I consulted my supervisor. She recommended me an educational group in the central Finland, which was facing the curriculum change and required support from the leaders. Therefore, I contacted the project leader and invited the participants for my research. The pre-assumption was that this group could provide rich perspectives towards the national curriculum reform, as the entire group members were experts on curriculum design, and most of them had experience on teaching. I took the background of the group into account and designed the questionnaire (see in Appendix 1) after revision. The research permission was asked before the survey was officially sent. The project leader was the only contactor for the research because the group of participants kept their personal data as confidential information. Thus, there was no direct communication between the researcher and informants.

The participants involved in this research mainly come from three educational levels: upper secondary school, secondary school and the local reforming commitment. Background information is illustrated as Table 1.

Gender	Female: 8	Male: 4
Job Responsibility	Teaching: 9	General Management:3
Age	Between 45-50: 8	Under 40:4

Table 1The Background information of participants

The research procedure could be clarified as following phases:

Stage 1: Preparation of the research. My research interest was inspired by reading certain literatures towards educational leadership, as well as having in-depth shadowing visits (a practicum of educational leadership programme in University of Jyväskylä, students are invited to different school to have close observation with one particular principal) in Finnish schools. The research focus was narrowed down to the organizational sensemaking. By taking the current situation into account, the Finnish curriculum reform was expected to be an appropriate context for analysing organizational sensemaking.

Stage 2: Seek the sample. The sample in this study was not randomly chosen. I chose the particular group because: 1) it was a leading group which initiated an educational change (curriculum reform); 2) it consisted of different levels of positions in various organizations; 3) the collaboration was highly demanded among the member, 4) it was in a dynamic process of making change. All these factors led to the request of better understanding organizational sensemaking.

Stage 3: Design the measurement. The questions of the online survey were designed on the basis of Karl Weick's (1993; 1995; 1998) core theories towards organizational sensemaking. Open-ended questions were designed, allowing the participants to articulate their thinking more freely.

Stage 4: Collect the data. The data collection started with a tentative mode of questionnaire to make sure the reliability of the measurement. After receiving the research permission from the project group, the website was sent to the group members via Internet. Participants could freely log in the online survey and type their answers that could be analysed statistically. All the answers were arranged by the professional website.

Stage 5: Process and analyse the data. After collecting the response of the participants, the data was translated into English later on. A bilingual (Finnish and English) was invited to translate the response. Furthermore, qualitative content analysis was utilized to code the data. The whole transcript (in five pages) was read several times, for the preparation of the extensive narrative. Thus, the "thick" image has been created (Lincoln & Guba, 1985). In line with the ques-

tions, the data was examined from the perspective of processing new information, communication and shared understanding. The initial analysis was formed separately for leaders and teachers, deeply searching for sensemaking behind various positions in the sample group. More related data items and categories were generated as the coding work processed. Counting the frequencies of words was done before thematically clustering the words into certain groups. Furthermore, after the data had been grouped, the lists of categories were categorized under each higher well-arranged headings (McCain, 1998; Burnard, 1991), aiming to narrow down the number of categories by distinguishing similarities and dissimilarities. The name of each category was given by borrowing the content-related words (Elo & Kyngas, 2008). The process was ended with the abstraction.

5.3 Research Methods

This case study illustrated the features of how to support organizational sensemaking in Finnish core curriculum reform. Through qualitatively analysing the data, this research examined sensemaking in educational organizations in a change situation within the scope of collaborative leadership.

Due to the special situation of the research (the informants and the researcher were geographically dispersed). Cyberspace was preferred as the main instrument because, as O'Connor and Madge (2003) suggest, cyberspace provides the versatility as the research platform offer chances in an arena that is not geographically restricted. In addition, there was no consideration regarding traveling, recording or transcribing (Lichtman, 2009, p. 133). Moreover, an online survey could lead the informants to be more willing to articulate their real ideas (*ibid.*).

As was clarified beforehand, the survey was distributed to the target group via Internet. I chose the online survey because the group members were not working for the same organization. Additionally, as the participants would have regular meetings which were not suitable for the researcher, the online

platform was an appropriate tool for both informants and the researchers to interact at any time. In order to get an in-depth understanding of the issues among the group members, the survey was divided into two sections. The informants would answer the questions in accordance to their positions. Furthermore, all the questions were designed as open-ended ones, which allowed informants freely to answer it. After the answers had been submitted, I transcribed the data and composed it as the main source of the case studies

The online survey is an applicable method to efficiently collect the answer of the participants for it saves time and cost. In addition, it is applicable when it is hard to observe the phenomena or activities, and when it is hard to collect the first-hand material (Lichtman, 2006).

The initial stage of the data collection involved establishing a web-based survey as well as the questions. The survey was created with the technical support from the website called Webropol (<http://www.webropol.com/>), which safely kept the response to be identified and authenticated. Webropol is a platform collecting feedback from all strategic transactions, deliveries and events online. It also enables the researcher to stay update with the key performance indicators. Additionally, it helps the users to systematically turn numerous facts and information into knowledge and insight. As regards to the secure and private issues, all modifications and viewing of reports are documented with the security log, which makes it sure that other users have no access to the data without authorization. Moreover, the individualised reports created by the Webropol could shorten the processing time.

5.4 Data Analysis

Qualitative research is a flexible methodology since its data can be analysed in various ways. There are two main approaches of analysing the qualitative data according to Lichtman (2006): identifying themes and telling the stories. After the data collection, content analysis was used to analyse the response. Content

analysis is a systematic and objective research approach. It is also regarded as a means to quantify and describe the phenomena and activities (Krippendorff, 1980; Down, 1992; Sandelowski, 1995), allowing researchers to examine theoretical issues in order to deepen the understanding of the data (Elo & Kyngas, 2008). In this research, I tended to identify the themes by coding the answers of the participants. Since no prior codes were determined before the answers were examined, the content analysis was utilized as the main source of selecting the themes.

In addition, content analysis offers several benefits. One of the merits why scholars have adopted this approach is its flexibility and variety (Hsieh & Shannon, 2005). As Remler and Van (2011, p. 62) have defined, the meaning of content analysis as a text analysis is to study written documents and, for example, historical studies can benefit from it. Content analysis allows the qualitative material to be shown in a quantitative way, enabling readers to understand the qualitative data clearly. Thus, content analysis aims to display numerical findings that have been turned into the written form (Levo, 2014). It is also a method that provides knowledge, new insights, a representation of facts and a practical guiding to action (Krippendorff, 1980). Moreover, content analysis results in a simpler description of data (Cavanagh, 1997), developing an understanding of the communication (Cavanagh, 1997) and seeking the processes of being critical (Lederman, 1991). To sum up, according to Downe (1992), content analysis is a method concerning the meaning, intentions, consequences and context, where the outcome created by the content analysis is fruitful, for instance, a model, conceptual system, conceptual map or categories (Elo & Kyngas, 2008). Major coding differences of content analysis are illustrated in Table 1.

Type of Content Analysis	Study Starts With	Timing of Defining Codes or Keywords	Source of Codes or Keywords
Conventional content analysis	Observation	Codes are born during data analysis	Data

Directed content analysis	Theory	Codes are initially designed before and during data analysis	Theory or relevant findings
Summative content analysis	Keywords	Keywords are identified and counted before and during data analysis	Researchers' interest; literature review

Table 2. Major coding differences among three approaches to content analysis (Hsieh & Shannon; 2005, p. 1286)

Furthermore, qualitative content analysis can be conducted inductively and deductively according to Lauri and Kyngas (2005). Inductive approach is recommended when there is no enough previous knowledge of the phenomenon or activity, or when the evidence of the knowledge is fragmented. The deductive content analysis can be adopted when the researchers need to testify an already-existed theory or model. To clearly differentiate these two methods, Chinn and Kramer (1999) argue that the approach utilizing inductive way moves from the specific to the abstract while deductive approach gets the result in other way around. Though these two methods generate different outcomes, they, in a way, share similar developing phases: preparation, organizing and reporting (Elo & Kyngas, 2008, p. 109).

In this paper, the data is analysed in a deductive way. Thus, some general themes were formed on the properties of organizational sensemaking, which will be specifically presented in further chapters.

5.5 Reliability

Reliability is a common feature in quantitative research to testify the quality of the research, and now it is being widely used in qualitative research. It serves as the tool persuading the audiences that the research results are worth paying attention (Lincoln & Gub, 1987, p. 290). I will argue the trustworthiness of this study from the perspectives of *credibility*, *transferability*, *dependability* as well as

conformability (Lincoln & Guba, 1988, p. 3), since these factors mainly affect the reliability issue in this study.

Credibility

Credibility refers to whether the actual phenomena are captured by the research (Shenton, 2004, p. 64). In this study, the credibility was guaranteed by having regular and in-depth contact with both my supervisor and project leader, in order to monitor the research procedure. Additionally, the questionnaire of the online survey was designed on the basis of my research questions. Before the survey was sent to the participants, it was jointly revised by my supervisor and the project leader, making sure if the questionnaire had fully covered the aspects of research questions. Furthermore, the sample was not randomly chosen. Though random sample could somehow eliminate the bias of response (Shenton, 2004, p. 64), the research questions demanded the response from a more professional lens towards curriculum reform in the Finnish context. Moreover, the sample consisted of various educational organizations, which provided sound variation of data.

Transferability

As another significant criterion of reliability, transferability means if this study could be reproduced by other scholars elsewhere (Shenton, 2004, p. 69). Generally, the findings of qualitative research are persuasive to a small amount of particular context and sample. The case study could be so unique that the results of the findings might not be applicable to a broader group. The sample in this study consisted of 12 professionals of curriculum reform in the Finnish context. Therefore, the results of this research might not be applicable to a greater area than the Finnish curriculum reform area. Also, the participants' responses may not be duplicated as it is difficult to recall what one had replied.

Dependability

Dependability refers to the quality of doing things in the same way and obtains the same results, which were used to examine the process and outcome of the research (Hoepfl, 1997). In qualitative research, dependability enables other researchers to get the same results by investigating the same sample with

the same methods in the same context (Li, 2012, p. 93). Therefore, in order to maintain the dependability in this study, the procedure of conducting the research was reported in detail, enabling further studies to replicate the work and gain the same results. In addition, based on the properties of sensemaking, the research design served as a prototype model inspiring the audience to develop their own understanding towards organizational sensemaking in an educational change process.

Conformability

Conformability indicates the objectiveness of qualitative research. As Shenton (2004, p. 72) notes, the findings should relate to the participants' own experiences and which should not be manipulated by the researcher. As one of the applicable methods to enhance the reliability, triangulation is normally used to analysing the research question from various perspectives. Coolican (2004, p. 580) regards triangulation as a means to compare different perspectives towards particular topic rather than seeking the accuracy of findings. It also serves as the tool to reduce the effect of researcher's bias in qualitative research (Shenton, 2004, p. 72). As regards to this study, the content of the survey was triangulated with literature on organizational sensemaking drawn from Weick (1993; 1995; 2003), as well as other official documents of Finnish curriculum reform. Furthermore, a critical process of 'audit trail' is introduced to observe the research procedure (Shenton, 2004, p. 72), since the detailed methodological description allows the audience to tell if the results would be acceptable. After the data had been coded in this research, a data-oriented diagram was illustrated, explaining how the data eventually led to the recommendation. Moreover, the limitations and their potential effects have been presented in this paper in order to enhance the confirmability.

5.6 Ethical Solutions

Ethical issues covered certain aspects of the researching process, including the research problems, research purpose and data collection, analysis as well as interpretation (Creswell, 2009).

Firstly, the research question which is beneficial to the participants should be formed before conducting the research (Yin, 2009). In this research, the central purpose was to help people better understand the organizational sensemaking in the curriculum reform process. Based on the research questions, the online questionnaire was drafted and sent to the project leader beforehand. The project leader provided valuable information, including the current situation, structure and other background of the case group, to revise the questionnaire. After the revision, the online survey was officially sent to the group members.

Additionally, the ethical research also involved the permission to conduct the research in the target group. Official document requesting the research permission was sent to the individuals before starting to collect the data, making sure each participant knew the topic, purpose and possible contribution of this research.

Furthermore, informants' privacy was strictly protected to ensure the reliability of the response. The survey was anonymously conducted. Only gender, position and school were asked, allowing the participants to articulate their ideas.

Finally, since most of the participants were not eligible to speak English, the survey was conducted bilingually. Finnish was allowed to use for the participants who prefer to use their mother tongue. Hence, a bilingual was invited to translate the transcript in order to ensure the accuracy of the transcript.

6 RESULTS

Properties extracted from Weick's (2005) notes on organizational sensemaking were mainly used as the coding frame, including *retrospect*, *social context*, *identity*, *ongoing process* and *enactment*. Some of the themes might not be presented in this chapter if they had not been mentioned by respondents, which will be in the *Discussion and Conclusion* chapter.

6.1 Supporting Sensemaking Process

Sensemaking engages with an ongoing process using a sequence where individuals express concern about their identities in the social context (Weick, 2005). This chapter aims at answering the first research question of how sensemaking process is supported in the course of curriculum reform. Sensemaking process of teacher-informants was affected by a variety of cognitive factors. These cognitive factors were involved in how individuals attributed the meaning of the new information and policy.

6.1.1 Retrospect

Group members' interpretations were based on the trusted frameworks. In the curriculum reform process, individuals faced evolving disorder, enabling some changes through time. As a result of these changes, a seemingly correct action "back then" became an incorrect action "now" (Weick et al., 2005, p. 413). Therefore, retrospect is, sometimes, of significance in diagnosing mistakes in an educational change process. Members will look back to their previous experience when they are confused about the emerging information.

Teacher 4: "*Sticking to old methods brings safety, trying new ones could lead to failure, increase of working hours and other risks which may rise if compared to the methods we are used to.*"

Unlike the fully-denied and fully-accepted phenomena, retrospection holistically reviews the image appearing in the reforming climate. After finding the rationalities of processing new information, subjects tend to match the emerging actions with their current values; they were still sceptic before the information was finally approved; otherwise, they would be so reluctant that few of them would implement the decisions made by leaders.

Teacher 1: *"I tend to be critical when orders challenge my values, for instance, when they decided to reduce the teaching hours"*

In addition to the trusted framework, subjects in this research dealt with uncertainties and other new information by looking for rationalities. In the circumstances of forming local curriculum, the group members were faced with numerous issues which needed explicit solutions. However, most of the individuals did not know where to start when they were confronted with new information. People first looked for rationalities, which enabled them to make sense of the information, or policy. The rationalities embedded in the frameworks, such as institutional constraints, organizational premises, plans, expectation, acceptable justifications and traditions, determined whether the individuals accepted the new information and policy.

Teacher 1: *"I simply think that an order is order."*

Teacher 2: *"I try to focus on what is relevant, but still feel insecure."*

Teacher 3: *"trying new ones could lead to failure, increase of working hours and other risks which may rise if compared to the methods we are used to."*

The feedback of how informants reacted to new information could be mainly summarized into two types.

- 1) The pure negative response: the informants were simply unwilling to take actions towards the new information, as well as the policy. Those participants who were purely negative were mainly afraid of the burden brought on by the new information. The subjects who negatively handled the new information were quite satisfied with the status quo. The neutral response:

those informants adopted unbiased opinion towards the new information, since they regarded it as the discipline which needed to be implemented.

By analyzing the transcript from the informants, it was found that only two of the participants felt excited about change and learning new things.

Teacher 4: *"I get excited a lot of new things, I want to learn new things and that is why I guess my hobbies include studying alone or in combination."*

Teacher 5: *"I often understand the new information on the positive frame, and accept it as part of my activity."*

Sensemaking allows individuals to deal with uncertainty and ambiguity by seeking rational interpretations (Maitis, 2005). Weick (1993, p. 636). This provides an efficient approach to creating occasions for sensemaking. It is necessary to clarify the questions, instructions and the outcome in front of the group members before processing the new information. The process of making sense is the transition from abstract to concrete; it is not easy to thoroughly alter the rooted system into a new one immediately. Thus, sensemaking in this stage is not about seeking what is right and wrong, but the ongoing redrafting of an emerging story so that it becomes more comprehensive, and resilient in the face of criticism (Weick et al., 2005).

6.1.2 Social Context

Social context in organizational sensemaking refers to a variety of social factors. As regards to this study, social context might include the previous discussion with other members, or a document describing the latest policies (Weick, 2005). Sensemaking is likely to occur when the current situation is perceived to be different from the expected state of the world, or when it is hard to find an obvious way to engage the world (Weick et al., 2005, p. 409).

It was common to see that team members were willing to share what they considered essential in such a dynamic context. The emerging information did not bring efficiency with sharing. It might be another paradox of being confused: the more you shared, the more you became confused; the more you became confused, the more you wanted to share with others. Thus, filtering the

information was one of the goals in the understanding shared stage. According to the participants in this research, the only criterion on sharing the information was welcoming different point of views. Open discussion, and reliable support from other group members, might shed light on clarifying the uncertainty and confusion.

Teacher 1: *"issues are, sometimes, complicated and complex; there is no right or wrong answer. To make rightful decisions (or less bad), we must share opinions and take different point of views into consideration."*

Teacher 3: *"...we discuss matters openly in our work environment and ask help from each other..."*

Teacher 6: *"...we have teacher meetings and there, we show interesting things to others..."*

When confronted with something uncertain, confusing, and dynamic, individuals felt more confident in processing the new information if they could interactively communicate with one another. In addition to having the collective discussion, a more holistic approach was formed by inviting more diverse perspectives to enrich the interaction. Taylor and Van Every (2000, pp. 33-34) highlight the role played by diverse viewpoints in group communication.

Teacher 3: *"...if that is not enough, there is the network beyond my own group..."*

Teacher 5: *"...discuss things with different perspectives..."*

The situation was interpreted through the interactive exchanges among members, since each one of them might produce a diverse view of circumstance based on their own objectives, organizations and backgrounds. A possible explanation towards the incremental demands of diverse viewpoints might be that diversity in communication maximally optimized the sources of organizations.

6.1.3 Identity

When action becomes the core focus, the interpretation is the central phenomenon in sensemaking process (Laroche, 1995, p. 66; Lant, 2002; Weick, 1993, pp. 644-646). Individuals might have polar interpretations towards one particu-

lar body signal, due to various individual values and backgrounds. As in the case study in this paper, when the Finnish National Board of Education attempted to reform the curriculum from the central to the local, each member in the leading group played a key role, as they were both the recipients and the executors of the new policy. However, as the preparation work proceeded, the common understanding demanded that the group members to make sure they had correctly interpreted the reform plans, or if they had developed the proper strategies.

Brown (1998), together with Tsoukas & Chia (2002), highlights individuals' interpretations. Similarly, Weick (2005) argues that the fundamental shared understanding decides how individuals perceive their current environment and their organization. After the individual's interpretation work has been finished, members start to act on the basis of their own understanding, which might result in various behaviors. As for the national curriculum reform, what individuals understood about core guidelines and information determined the outcome. Moreover, results in this study reveal that participants in this leading team were willing to share their individual understanding as much as possible. Teacher 3: *"Superiors' readiness gives space for community members to create some new and constructive realization means"*

Personal interpretation cognitively reflected the schemata of individuals. The schema acted as the mental model enabling people to match emerging information and thus, determined "what do they mean?" (Poole et al., 1989, p. 272; Balogun & Johnson, 2004). Hence, interpretations of each member differed from one another, causing diverse reactions and behaviours, for it was an individual and personal phenomenon. As for the case in this study, limited information might generate various individual interpretations.

Weick (1997, 1995) argues that the commonality between individual interpretations leads to an enacted reality at group level with sorts of norms, assumptions and beliefs.

Teacher 5: *"new knowledge should be checked so that everyone has understood and interpreted the new information correctly..."*

In line with the features of individual interpretations, reflection was necessary after recipients ended the flow of processing, which formed a new negotiated organizational understanding.

Teacher 5: "*I will find out information farther, I will discuss...*"

Teacher 6: "*Through common discussion our members think about new point of views for matters*"

6.1.4 Enactment

Cognitive reactions initially occur when people are trying to make sense of their surroundings. As the stage processes, sensemaking becomes directly about enactment. As demonstrated in this research, the informants tended to arrange their actions in a dynamic context as below:

(i) Open discussion and interaction

Organizational process could be the context-dependent, non-linear and dynamic source for individuals, leading to a great amount of confusion and uncertainty. Openly discussing the new information with others could, to some extent, lessen the disorder that emerges in the ongoing sensemaking process. Sensemaking is regarded as a conversational and narrative process (Brown, 2000; Gephart, 1993, 1997). Though the sensemaking process normally involves both verbal and non-verbal approaches (Gioia & Chittipeddi, 1991; Gioia et al., 1994), most of the informants in the leading group were likely to use open discussion as a major means in the curriculum reform process.

Teacher 6: "*we discuss matters and we interpret them together, provided that there is need for interpretation...*"

Teacher 7: "*a common time for debate has been arranged...*"

Teacher 8: "*new information should be discussed together...discussion before deciding notice should be favoured in any organization, Meetings for all the teacher board, team meetings, Wilma-liaisons, noticeboard, e-mail, lunchtime discussions, open-days, parent-teacher conferences and other kinds of meetings.*"

All conversational means (including gossip, negotiations, exchange stories, rumours and previous experiences) create context and add meaning to the in-

formation (Gioia & Chittipeddi, 1991; Gioia et al., 1994; Gioia & Thomas, 1996; Poole et al., 1989; Labianca et al., 2000). Interaction happens in conversations and language (Barrett et al., 1995; Brown & Humphreys, 2003; Ford & Ford, 1995; Heracleous & Barrett, 2001).

(ii) Intra-organizational engagement

Shared understanding is essential in modern organizations. The intra-organizational engagement can also be extended to other related fields. In educational organizations, events concerning the relationship among students can be, sometimes, quite sensitive for both school leaders and teachers. As the descriptions illustrated in the survey, one of the informants described a faked rumour about a sexual video. The rumour storm cannot unilaterally be calmed down by one party. Students, schools and parents, together with counsellors, nurses, social workers and the police should be invited to tackle the sensitive events.

Teacher 7: *"the school social worker is helping us, as well as other social and youth assistance services... also the police, in case of need..."*

Teacher 2: *"...therefore, we need to contact several people: homes, the counsellors, the nurse, the police and so on...."*

Almost every member in the leading group knew that they had to formulate the local curriculum as soon as possible. Nevertheless, the shared understanding demanded a lot of open discussion alongside the contact hours. Thus, it meant that subjects needed more individuals having various perspectives and values to join the discussion in order to make the proper decisions in such dynamic context.

(iii) Additional Supports

As regards to this context, additional supports were adopted in promoting sensemaking process, such as remote technology, additional references and relevant documentation. One interesting finding is that the teacher-subjects were

looking forward to seeking additional support when they processed new information.

Teacher 8: *"I am looking for information in a greater distance..."*

Teacher 2: *"I might get more information by reading books or by searching on the Internet..."*

Teacher 7: *"I could write an email and ask if anyone knows what it means..."*

6.2. Fostering Collaborative Strategies

Sensemaking is a quite complicated concept and covers numerous dynamical features. Normally, it is embedded in social and daily practice. Understanding sensemaking process demands wise leadership in order to guide the group members to make proper decisions. As for the leading group studied in this paper, the project leaders employed collaborative leadership as the ideal model to support organizational sensemaking in terms of human interaction and decision-making strategies.

As collaborative leadership was adopted by the leading team, collaboration occurred in different domains in the midst of the curriculum reform. The answers to the web-based survey revealed the word map of fostering collaboration inside the leading group. (See in Figure 3.)



Figure 3 The word map of fostering collaboration within the group

As one of the most efficient means supporting sensemaking process, collaboration enables organizations to maximize members' talents, to coordinate knowledge, and to gain more global opportunities (Weiss & Hughes, 2005). After analysing the organizational sensemaking from the perspective of teacher-

subjects, this chapter illustrates collaborative strategies fostered by the group leaders, explaining how collaborative leadership promoted sensemaking process in educational change context.

6.2.1 Enactment

The interaction between the leaders and the group members could be regarded as the crucial feature to verify the curriculum reform. The challenges and reform brought by upcoming curriculum changes are highly demanding as regards the support from leaders, calling for a collected, interactive, cooperative and open leadership to guide the route of the reforming process. The strategies of forming collaboration could be summed up as below in accordance with the survey:

(i) Positive interactive discussion

Discussion has been regarded as the most efficient approach for tackling problems among the leader-subjects in this research. Discussion always occurs within the group as a collected, casual and open-ended activity. As one of the projects of limited instructions, and highly-demanded requirements, nationwide core curriculum requires discussion to be an efficient platform for maximizing each member's potentiality for problem-solving ability.

Leader 1: *"...dialogue is important, real dialogue where people respect each other... the only way to go to the target is to listen, ask open questions and share....we have discussed and share our values..."*

Leader 2: *"...we collected opinions of values from schools, school leaders, parent and politicians..."*

Discussion was utilized by the informants, and it also involved listening, mutual respect, sharing and positive interplay. Being a real discussion meant being respectful towards polar ideas; it also required being open-minded during the discussion procedure. Nevertheless, the procedure of discussion may have become the occasion for making complaints. That the leaders would do this reflects the standards of being a reliable supporter.

(ii) Forming the climate of collaboration

As to the executive group, leaders were faced with the pressure of creating a climate where individuals would be willing to talk. As the example illustrated in this case study, leader-subjects were likely to encourage each member to articulate their opinions.

Leader 2: *"...on purpose, I did not give any exact tasks, only a broad line of themes around certain phenomena..."*

Leader 3 *"...I try to hold my tongue when they are negative... I turn the other side of the coin: the positive one..."*

Leaders were not sharing their judgements when they personally thought an idea was negative or wrong; instead, they were trying to convince themselves to accept the polar viewpoint from other group members in order to maintain an open climate. They sometimes did not give specific instructions for achieving the goals, enabling the members to achieve them in diverse ways. The process of forming collaboration was long-lasting and complex, which asked for the execution both from the leaders and other individuals. The leaders chose to be open-minded executors, as it can motivate the mental vigour of group members, while trying to maintain the passion towards the curriculum reform. The motivating actions taken by these leader-subjects were more on the behavioural aspect, spiritually fuelling the interior motivation of individuals. Praising participants was the common strategy for motivation during the climate-forming process.

Moreover, additional intensive pressure, information and clear instructions were given to enhance the awareness of the collaboration in the curriculum reform process.

Leader 1: *"people tend to oppose changes where they need to come out from their comfort zone, so, I made a test open to all teachers for one week... they could see themselves that they need to do careful planning, work together and they cannot expect somebody else to do their work"*

Leader 2: *"some teachers did not prepare anything and their students got bored in two work days. Teachers complained that this kind of working is a disaster...they were so disappointed but they needed this experience..."*

Leader 3: *"I try to give them all the information they want to know; ... I help my school principal to make good decisions in structures and organization, so that it is easier to make new curriculum work in practice..."*

Team leaders considered collective activities as the proper means to foster collaboration. Leaders preferred to arrange thorough discussion among the group members. Remote technology was also introduced to allow participants to have efficient interaction with one another. It is interesting to find out that compared to the teachers' intention of facing the dynamic environment, the leaders paid a great amount attention to the collective activities. In addition to the incremental awareness towards decisions collectively made by the group, the pre-discussed preparation work was also highly demanded. The outcome of collaborative discussion was aimed at developing individuals' working performance and the efficiency of the whole organization. Moreover, the collected activities were not constrained only by face-to-face meeting. Various approaches (including e-mail, online system and the Office software) were applied to lessen the contact hours while improving the efficiency.

Leader 1: *"...we made the road map together according to my preparations.....teams discuss things together before a meeting..."*

Leader 2: *"...discussion, sharing in the Web, giving the credit for the professional knowledge of the members in the group..."*

Leader 3: *"the sharing culture will bring the working community and organization to be a wide range development to everyone..."*

6.2.2 Social Context

Team leaders found out that what the whole group needed was fully-organized collaboration, as it was the bedrock to secure the team when making proper decisions on the curriculum reform. The leaders had already realized the im-

portance of making sense when the group members were creating the new local curriculum as the team was faced with several problems, including the heavy workload, limited time, and new information provided suddenly to the group.

Leader 1: *"we listen to each other carefully... we want to change the learning and teaching, and we have to be open and courage... the only way to go to the target is to listen, ask open questions and share..."*

Leader 2: *"I use the principle of shared leadership as much as possible...I invite representatives from different parts of the organization to sit down and discuss the work from several perspectives... I think it is important that everybody can participate with their ideas, even via a representative..."*

Leader 3: *"bonding (to bond) is important for me..."*

Sensemaking also involves communication within the educational organizations. Communication is regarded as one of the central features to make sense of the circumstance (Weick et al., 2005). The individual sensemaking might have limited influence over the whole organization, but insufficient communication can hinder the procedure. The importance of communication has been articulated by Benner (1994) and Winter (1987). They define that the passage of communication is the social process clarifying the tacit knowledge to make it more usable for the individuals. Sharing the new information with others means to transfer knowledge out of tacit, private, complex, random and past state to a more obvious, public, simpler, and relevant one (Obstfeld, 2004). However, the approaches of communicating are varied in modern organizations.

Members in the leading group faced certain new information, which highlighted the demands of interactive communication among them. The content of their answers revealed that proper means were adopted by the leading group. After analysing the key words with counting the frequency and interpretations, the approaches of communication of the leading team could be simply summarized as below:

(i) Collective discussion.

Discussing the topic from various perspectives was regarded as the most efficient approach to group communication. According to the participants, they preferred to have the discussion on various occasions; most of them intended to have an informal gathering with both teachers and leaders, where they could exchange the latest problems emerging in their daily work.

Leader 1: *"...by means of a joint discussion of our group members, we discuss the things from different perspectives..."*

Leader 2: *"yes, I communicate with my colleagues. I discuss acute issues with principals; and I try to negotiate and discuss with my colleagues..."*

Leader 3: *"I ask others if I do not understand a thing..."*

(ii) In-service training

In addition to the support from both leaders and other group members, it was of necessity to receive systematic in-service training during the reform. One of the informants suggested that the organization could provide in-service training to make individuals better understand the educational change.

Teacher 3: *"...trainings for the new cases..."*

Though the request was clear, applicable approaches have not been mentioned by the subjects. Normally, the conventional training favours teaching individuals using the same model; conversely, the distinction should be made in the course of processing the new information. Weick (2005) suggests that the organization could enable the employees to be well-prepared in terms of sensemaking by: (i) providing the resource that people used for processing or learning; (ii) systematically collecting and summarizing previous detailed data; (iii) observing the work of other leading teams who were more experienced on the processing stage.

To sum up, the training does not aim at modelling individuals into the same type; instead, it should incorporate the processing strategies of the members. The outline for providing training could be summarized as (Donald C & Phyllis A, 1984):

- i. equipped knowledge or assumptions about future events;
- ii. alternative options of the knowledge;

- iii. the knowledge consequences attached to alternatives.

6.2.3 Identity

Increasingly, the support given by the leaders is regarded as one of the crucial factors in bridging the gap among group members. Certain informants have expressed their willingness looking for the support both from the leader's level and the administrative regulation. Discussion and interaction were favored by teachers. However, it was not easy to positively lead group members to generate the considerable outcomes. Thus, the function of the leaders has been highlighted in the dynamic climate, for it could enhance the readiness of free and open interaction. Leaders also kept the interaction on the appropriate track.

Leader 1: *"manager's willingness provides space for community members to build new and constructive ways of implementation..."*

Leader 2: *"they (leaders, and the upper administration department) could give the general overall picture first, and then the detailed information..."*

Sensemaking process also engages with the understanding conceived by the individuals. When action becomes the core focus, the interpretation is the central phenomenon in sensemaking process (Laroche, 1995, p. 66; Lant, 2002; Weick, 1993, pp. 644-646). Individuals might have polar interpretations towards one particular body signal, due to various individual values and backgrounds. As in the case study in this paper, when the Finnish National Board of Education attempted to reform the curriculum from the central to the local, each member in the leading group played a key role as they were both the recipients and the executors of the emerging policy. However, as the preparation work proceeded, the common understanding demanded that the group members make sure they had correctly interpreted the reforming plans, or if they had developed their proper strategies. Brown (1998), together with Tsoukas & Chia (2002) highlights the focus towards individual interpretations and meanings. Similarly, Weick (2005) argues that the fundamental shared understanding decides the way individuals conceive their current environment and their organi-

zation. After the individual interpretation work had been finished, members started to act on the basis of their own understanding, which might result in various behaviours. As for the national curriculum reform, what individuals inclined toward were the core guidelines and information that determined the outcome. Moreover, according to the survey, participants in this leading team were willing to share their individual understanding as much as possible.

Additionally, as one of the features of collaborative leadership, yielding productive solutions was the major outcome in the decision-making stage (Jäppinen, 2014). Furthermore, collaborative leadership does not simply deal with interactive collaboration. As one of the increasingly heated topics in leadership in educational organizations, collaborative leadership also takes human attachment, vertical management as well as various interactive approaches into consideration. Organizational sensemaking could be promoted within the leading group by firmly adopting collaborative leadership.

During the preparation process of the local curriculum, the demands of leadership had been elevated since the group consisted of certain individuals with various backgrounds. Therefore, in this case, the whole group was transferred from the integrated and hierarchical structure to a more semi-independent form (Schilling & Steensma, 2001). Likewise, Child & McGrath (2001, p. 1137) suggest that the decentralization of responsibility, power and resources also highlights the importance of sensemaking and leadership in the organizations. All the features of the decentralized process are based on certain core activities and interpersonal relationships. As regards to this study, the leading team was geographically distributed, as most of the group members worked for various educational organizations. Thus, as one of the focal reasons, geographical distribution elevated the role of sensemaking during the nationwide curriculum change. Though the educational department has released the core guidelines casting the lights to local authorities on forming individual curriculum, various financial, social backgrounds as well as the school culture might lead to certain problems during the practice.

Current data reflects how school leaders and teachers interpreted the changes existing in the curriculum reform, which could serve as the mirror in reflecting the mechanism of the interpretive frameworks, as well as how their frameworks have developed and changed. The elements found in the data could serve as the guidelines service for the leaders on supporting the curriculum reform in practice.

7 DISCUSSION AND CONCLUSION

The last chapter discusses the findings of this research and the contribution as well as its limitation. At the end, a conclusion gives a holistic overview of the research.

7.1 Discussion of Qualitative Findings

Properties of organizational sensemaking, including *retrospect*, *social context*, *identity*, *ongoing process* and *enactment or action*, (Weick & Sutcliffe & Obstfeld, 2005) were utilized as the main coding frame in order to answer the research questions in this study. After analysing the data, I did not find any response correlated with the *ongoing process*. Moreover, there was no description towards how to foster collaboration from the perspective of *retrospect*. It is suggested that these gaps existed in the research due to the following reasons:

1) The focal point of research questions were centred on a more holistic description towards organizational sensemaking. Therefore, the design of research questions led the respondents in a more general manner when they answered the survey.

2) The measurement tool was based on a virtual space, demanding the informants to type their answers online. However, the information virtually shared by these subjects might not be as much as they would have shared in a face-to-face interview; informants, sometimes, were not used to doing the written work. The results were diagrammatically synthesised in Table 3.

Table 3 Overview of the results

Properties of organizational sensemaking	Support of organizational sensemaking process	Fostering collaboration strategies
Retrospect	-Looking for rationalities making sense of the changing process;	Not found

	-Establish the trusted and firm framework.	
Social context	-Sharing opinions and diversely tackle the problem; -Regular meeting; -Additional supports outside the group, such as the virtual platform.	-Open-minded dialogue; -Careful and patient listening; -Share the leadership; -To bond everyone in the group; -More collected discussion; -In-service training with collaborative learning strategies.
Identity	-To check if every member has understood or interpreted the problems correctly.	-Strengthen managers' willingness.
Ongoing process	Not found	Not found
Enactment	-Open discussion/interaction; -Common debating time; -discussion before deciding the notice; -Intra-organizational engagement; -Additional supports from the Internet.	-Respectful dialogues; -Collect various opinions of group members; -No judgements; -Do not give any exact tasks, only broad line would be given; -Help teachers to be well prepared of the new problems; -Provide detailed description towards the new problems;

		-Encourage members willing to talk.
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As regards to the results, collaborative leadership prevailed in the leading team, which promoted sensemaking process of the group. The methods utilized by the group leaders could be summarized as below:

(i) The support of organizational sensemaking process

As one of the prerequisites for successfully reforming the curriculum, leadership should be adaptable in accordance with the demands of the group members. Leadership adopted by the leaders is a process and not just an explicit outcome. As for the leading project group in this paper, collaborative leadership shed light on guiding both the leaders and teachers to deal with sensemaking of the outfit. Illustrated by the findings, the teacher-subjects were more willing to confront the new information when they felt fully supported by their leaders. As a result, the teacher-subjects felt secure to take the step when they were dealing with uncertain or new information.

Thus, the teacher-subjects, fully supported by their leaders, tended to be more confident when they confronted the educational change. As a matter of fact, they regarded that the change could make teaching superior and well-organized. Additionally, the request for a thorough, holistic, comprehensive collaborative leadership has been heated among teacher-subjects. For instance, most of the teacher-participants argued that they were not afraid of the dynamic and uncertain information or knowledge. However, they needed as much detail about the information as possible, which could help them to figure out the roadmap. Furthermore, teacher-subjects preferred to consult with one another in case they were unfamiliar with the upcoming information or knowledge. To sum up, they were likely to spend time on discussion with both their peers and the leaders, demanding an all-around interaction.

(ii) Leadership in communication

As it has been argued, collaborative leadership demands a more comprehensive, holistic, and open discussion among group members. Thus, the discus-

sion highlights the needs of communication. As regards to this study, collaborative leadership was not constrained by face-to-face presentations or meetings. Moreover, various means of communication were adopted by the project group, such as remote technology, online systems and the teachers' lounge. Compared to the first two channels of communication, the teachers' lounge was preferred by most of the teachers, since it is a very casual place for solving difficulties and a proper platform for clarifying the possible confusion of the teachers. People tended to exchange their real ideas in a more relaxed and cosy environment. In addition, collaborative leadership was bound to an attitude of tolerance when the leaders confronted various opinions. Tolerance brought the triumph of diversity, which also fuelled individuals to be more creative and energetic.

(iii) Guiding the shared understanding

Unlike the features of new information and communication, shared understanding exists in the organizational sensemaking in a rather covert manner, since it belongs to human cognition. It is hard to manipulate the shared understanding of each member, since understanding is individually intercepted in accordance with peoples' personal backgrounds. When it came to the core curriculum reform, the recipients (both leader-subjects and the teacher-subjects) created new understanding by way of their current knowledge. However, most of the subjects did not share similar knowledge-based values. Thus, it is not easy to claim that each member had the same understanding towards the same topic. The diversity of shared understanding resulted in organizational sensemaking. Intra-organizational activities invite all sorts of parties to be involved in the procedure of the nationwide curriculum reform. Collaborative leadership allows intra-organizational activities to prevail in the organizations, as the leaders in the leading group try to enhance the readiness of articulation.

The results reveal that collaborative leadership had positively influenced sensemaking process within the leading group. One of the benefits of a collaborative and group-based leadership was supporting the decision-making processes of the curriculum reform during its different phases. Compared to these

benefits brought by collaboration, the roles played by the leaders could be strengthened according to the responses that are illustrated below:

All the issues discussed in the course of the curriculum reform were complicated and time-consuming, as the radical solutions, sometimes, lead to pressure and a rebounding of emerging problems. Hence, the leaders needed to be systematic controllers by fully realizing the nature of the reform. Making each member completely understand the procedure of the curriculum reform is was the primary job for the leaders, as individuals were burdened with the responsibilities of individual tasks. Thus, the leader is was not the only decision-maker in the group, but a systematic reformer who could patiently explain, support, respect, understand and discuss with others, enabling the members to be the energetic source of making educational change.

Since the newly-released curriculum inevitably demands alternation towards values, learning attitudes as well as the teaching behaviour, it is of necessity to minimize the fear and resistance coming from the teachers should they refuse to implement the new policies. Leaders should act as an efficient coordinator if members have conflicts between values and acting manners. Also, leaders should positively join the procedure and, when there is no sufficient information; try to provide details of the change issues. Being a dispute coordinator does not simply mean solving conflicts which have already happened, but to be prepared for a latent crisis

After the decisions and visions have been made, implementation is the next and the most important stage. The recipe of ensuring success is in the execution, which can be regarded as the discipline and strategy in guiding individuals to take actions. The execution demands that the leaders have a deep understanding of the group. Apart from the leaders, each member has to understand and implement the policies collectively. As the core part of the reforming procedure, the leaders have to:

- 1) figure out the features hindering and affecting the decision-making process;
- 2) focus on the primary objectives and the sequence;
- 3) optimize the limited resources;

4) provide adequate counselling for each member.

7.2 Significance of the Research

Guided by the research questions, this study aimed at making the contribution of: 1). identifying the elements promoting the ongoing process of sensemaking in a Finnish curriculum reform context; 2). enhancing the possibilities of being successful in the reform, especially in a dynamic environment; 3), as well as shedding the light on developing the local curriculum for less-instructed organizations; and 4), concluding-limitations of this study.

Organizational sensemaking has been discussed in many contexts, because it generates the way that individuals interpret the information in their organization (Weick, 1995), which in turn powerfully affects the results of a reform. Nevertheless, the preparation of the national curriculum reform demanded that leaders promptly take actions. The lack of instructions might have given rise to uncertainty, confusion and instability within the project group.

7.3 Limitations and Recommendations

The limitation of this research could be categorized as below:

Methodological limitation: adopting the online survey was necessary due to the lack of contact hours with the subjects. Though the online survey provided the convenience of collecting data, the richness of the data was not enough. Some of the participants detailed their situations in several rows, while the others choose to keep the answers as simple as possible. The partially insufficient data, in a way, hindered the procedure of coding at the initial stage. Moreover, certain applicable measurements could be complementarily utilized to enrich the data, such as the field observation and the semi-structured interview. In fact, online survey is not a traditional measurement in qualitative research, because some researchers still prefer collecting data face-to-face, not via the remote

technology. Lacking contact hours with interviewees can be a drawback for researchers, because some facial expressions and body language cannot be sensed during the online investigation. It might be an open occasion allowing participants to freely speak out their real feelings towards their leaders, colleagues and the organization. Additionally, it was a convenient way to meet participants as the subjects were geographically dispersed (Salmons, 2012).

The limitation of the case group: this paper only presents sensemaking and leadership within one leading group in the central Finland. As the specific situation of different regions can be diversely various, the focal point of each leading group will also differ. Further studies conducted on promoting the features of organizational sensemaking with various leadership styles in wider areas will be of great value.

The limitation of the language translation: English was adopted as the official language in this research. However, some of the participants could not fully express their ideas with English; thus, they were allowed to use Finnish to answer the questions. Thus, I invited a bilingual Finnish person to translate it into English. However, as all the participants were experts in education, some psychological and teaching-related terminologies were used in their answers. There was a risk of using inaccurate words for the translator. Thus, it was necessary to use translators who were familiar with both the educational and management terms.

7.4 Conclusion

This paper investigated if collaborative leadership efficiently affected the ongoing process of organizational sensemaking in a dynamic context (in this research, the dynamic context refers to the 2016 national curriculum reform). As it is shown in the qualitative findings, collaborative leadership did play a significant role in promoting the whole process of making sense, which also indicated that the function of collaborative leadership could be strengthened in the course of sensemaking. For example, leaders could provide feasible paths for pro-

cessing new information, interacting with others as well as sharing the common ideas within the group. The strategies adopted by the leading group were the grounds guiding the members to: 1) keep going on, since the flow of experience where action is embedded did not stop; 2) understand that incorporating meaning and mind into their behavioural philosophy because it is of importance; 3) realize that actions are just the small parts ahead of cognition and meaning; 4) call for the increased skill of sensemaking when they were confronted with the uncertain and dynamic context (Weick et al., 2005).

In this research, the practice of organizational sensemaking in the case group aiming to reform the local curriculum was analyzed. The findings of the qualitative data were contributable as they demonstrated that organizational sensemaking was of necessity for the decision-making stage. The findings also revealed that collaborative leadership did support the dynamic process of making sense among the members. What is worth mentioning is that the organizational sensemaking of the case group bore the following unique characteristics: First, although the support from the leaders was sufficient, the teacher-subjects in this case group preferred to have as much detail on information supplement (they demanded the leaders to support them with as much information as possible). Second, the subjects preferred to have more diverse approaches on dealing with new information, communication and sharing, such as the remote technology, teacher's lounge and regular meeting time.

In conclusion, this research sought the elements of promoting sensemaking process within a project group in Finland. It was necessary to correlate the synthesis to the practice. This study has contributed to further discussion and holistic understanding towards organizational sensemaking in an educational change. I hope this paper has shed light on guiding the leaders to have wiser management means in educational organizations.

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APPENDICES

Appendix 1 the Questions of the Survey

For teacher-subjects

1. What do you feel when confronting with new information? Could you simply describe the situation.
2. Do you have some suggestions that the organization could do when you process the new information? Could you give an example.
3. How you communicate with other group members while you are unsure about the new information? Could you give an example
4. What kinds of communication are normally used in your organization? Could you give an example.
5. Do you share you understanding in complex issues with other members in your organization? If yes, could you specify why and how?

For Leader-subjects

1. As a leader, could you describe strategies, activities or processes that have been used to foster collaboration in your organization. You can use bullet points to specify your ideas.
2. How do you support the teachers when they confront with the new information? Could you give an example.

Appendix 2 Research Permit Request

Department of Education

Institute of Educational Leadership

P.O. Box 35 (Ruusupuisto)

40014 University of Jyväskylä, Finland

Hi, I am a student in the Master's Degree Programme in Educational Leadership, where I am writing my Master's thesis on the topic of organizational sensemaking. The purpose of the study is to explore the elements of supporting the process of organizational sensemaking. I am requesting for your kind permission to collect the research data in your institution at the time of your convenience. The data is collected and used for research purposes only and will be dealt with anonymously.

Please contact me if you have any problems.

Thanks for your contribution.

Hong Wang

honwang@student.jyu.fi