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Middle Managers in the Norwegian School: Opportunities and Challenges in the Development of Professional Learning Communities

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Abstract

I denne masteroppgaven undersøkes muligheter og utfordringer som mellomledere i norske skoler, ofte referert til som avdelingsledere, møter i utviklingen av Profesjonelle Læringsfellesskap (PLF). PLF er i myndighetsrapporter sett som en forutsetning for lokalt læreplansarbeid i henhold til nasjonale styringsdokumenter. PLF forstås som en gruppe mennesker som deler og kritisk undersøker egen praksis i reflekterende, samarbeidende, inkluderende, læring-fremmende og utviklingsorienterte prosesser. Målet er at skolen skal være en lærende organisasjon, der skoleledelsen arbeider for å skape dette fellesskapet.

PLF har fått økt oppmerksomhet de siste tiårene fra praktikere i skoler, forskere og myndigheter. Effektiv ledelse anses som viktig for suksessen til PLF i skoler. Det er forskjellige muligheter og utfordringer som møter skoleledelsen i dannelsen og utviklingen av PLF. Ledelse av PLF er preget av interaksjon. En nordisk modell for skoleledelse er kjennetegnet av korte avstander mellom lærere og ledere, ofte basert på tillit, respekt og anerkjennelse. Å trekke ut og utnytte hverandres kompetanser og å lære av hverandre, både innenfor organisasjonen og på tvers av forskjellige organisasjoner, er viktige elementer i kompetanseutvikling i skoler.

I prosessen med å utvikle PLF spiller skoleledelsen en sentral rolle. Sammen skal det faglige fellesskapet velge og forme en vei. Skoleledere, i kraft av sin formelle posisjon, har ekstra innflytelse og stemme i denne prosessen. Skoleledere skal lede prosessen med å ta et utforskende og kritisk blikk på nåværende praksis for å identifisere utviklingsmuligheter. De skal lede den kollektive prosessen med å bestemme retningen skolen ønsker å utvikle seg i, og hvilke spesifikke endringer skolen ønsker å gjøre.

I denne avhandlingen vil jeg utforske mulighetene og utfordringene som møter mellomledere i norske skoler når de skal videreutvikle og forme PLF. Mellomledere kan ha forskjellige funksjoner og roller i forskjellige skoler. Spesielt kan størrelsen på skolen bestemme rollen til mellomlederne. I min avhandling har jeg fokusert på mellomledere i mellomstore og store videregående skoler i Norge. I tillegg skal jeg, i lys av mine egne funn og eksisterende forskning på feltet, drøfte mulige endringer som kan gjøre at avdelingsledere kan drive et enda mer effektivt arbeid med å utvikle PLF.

1 Introduction

In this project, I will examine the opportunities and challenges inherent when school leaders, with a focus on middle managers, work on the development of Professional Learning Communities (PLCs). In Norway, middle managers are often referred to as 'avdelingsledere'. The significance of PLCs is emphasized in governmental reports, and the development of PLCs is seen as a prerequisite for local curriculum work in our current national governance documents (Ballangrud, 2022; Kunnskapsdepartementet, 2017). PLCs are understood as a group of people who share and critically examine their own practice in ongoing reflective, collaborative, inclusive, learning-enhancing, and development-oriented processes (Aas, 2022a; Ballangrud, 2022; Stoll & Louis, 2007). The goal is for the school to be a learning organization (Paulsen & Jenssen, 2023). School management should work to create this community through prioritizing the development of cooperation and relationships and lead the collaboration between professionals in school in such a way that "everyone reflect on common values, and assess and develop their practice" (Kunnskapsdepartementet, 2017, p. 22).

PLCs have received increasing attention over the past decades from practitioners in schools, researchers, and authorities. Effective leadership is important for the success of PLCs in schools (Aas, 2022; Paulsen & Jenssen, 2023). There are various opportunities and challenges that face school management in forming and developing PLCs. Leading PLCs is an activity characterized by interaction. A Nordic model of school leadership is marked by short distances between teachers and leaders, often based on trust, respect, and recognition (Aas, 2022; Paulsen & Jenssen, 2023). Drawing out and utilizing each other's competencies, and learning from each other, both within the organization and across different organizations, such as between different schools or institutions, are important elements of competence development in schools.

In this process, school management plays a central role. Together, the professional community will select and shape a path. School leaders, in light of their formal position, have extra influence and voice in this process. Furthermore, school leaders are to lead the process of taking an exploratory and critical look at current practices to identify development opportunities. Thus, the school management must lead the collective process of determining

the direction in which the school wishes to develop and what specific changes the school wants to make (Aas, 2022; Paulsen, 2021; Paulsen & Jenssen, 2023).

PLCs can be linked to organizational learning (Bush, 2015). Jan Merok Paulsen argues that school leaders may encounter dilemmas between Norwegian ideals of trust and collaborative learning on one hand, and international ideas of control and performance management on the other (Paulsen, 2021; Paulsen & Jenssen, 2023).

In this thesis, I will explore the opportunities and challenges presented by PLCs for middle managers in Norwegian schools. Middle managers can have different functions and roles in different schools. Particularly, the size of the school can determine the role of middle managers (Abrahamsen, 2019, 2022; Abrahamsen & Aas, 2019). In my thesis, I have focused on middle managers in medium and large upper secondary schools in Norway.

1.1 Background of the Study

In the field of research and educational development, interest in Professional Learning Communities (PLCs) has significantly increased over the past decades. This is true among educational authorities, practitioners, and researchers alike (Aas, 2022a; Paulsen & Jenssen, 2023). In Chapter 3.5 of the overarching section of the curriculum LK20, "Professional environment and school development", the following guidelines for school practice are found: "School should be a professional environment where teachers, leaders and other members of staff reflect on common values, and assess and develop their practice" (Kunnskapsdepartementet, 2017, p. 22). This understanding of the school as an arena for professional development is consistent with the explanation of Professional Learning Communities (PLCs) given in the previous section.

There is a growing understanding that leadership is necessary to develop PLCs in schools. I will explore the challenges and opportunities that school leaders, specifically middle managers, face when leading PLCs. The questions in the interviews will be based on a table developed by Karen Seashore Louis, which describes various levels or strengths of PLCs (Louis, 2015). We will take a closer look at the leadership challenges that exist in relationship with the development of PLCs, and I will discuss these in light of theories that can contribute to a deeper understanding of the challenges.

My research is distinguished by a particular focus on middle managers in Norwegian upper secondary schools, commonly known as 'avdelingsledere' in Norwegian. Below is a review of the literature and research that exists. First, on the importance and significance of PLCs in schools. Then, the importance of middle managers in the development of PLCs.

1.2 School Leadership as a Collaborative Activity

Leadership in school development, including the development of Professional Learning Communities (PLCs), is primarily a collaborative activity involving interaction between leaders and between leaders, teachers and other pedagogical staff. Leadership as a collaborative activity has implications for the distribution of leadership tasks and responsibilities in schools, as well as for organizational and communication structures and relationships between leaders and teachers. In the Nordic model, the interaction between leaders and teachers is characterized by close proximity and communication marked by respect, trust, and recognition (Paulsen, 2021; Paulsen & Jenssen, 2023).

Leadership of change work in schools is, among other things, characterized by competence development among staff. There is a consensus that such development should occur through collective learning processes within PLCs (Aas, 2022a; Lillejord, 2022). This can, for example, be the leadership of a joint critical exploration of the school's practice, which can create space for the development of new teaching methods. PLCs can also lead to other forms of change and development. The requirements for collaboration, competence sharing, and school development set forth in LK20 presuppose the development of good and fruitful PLCs (Aas, 2022a; Paulsen & Jenssen, 2023).

1.3 Professional Learning Communities (PLCs)

PLCs in a Norwegian school context represent an approach where teachers and other school personnel systematically collaborate to improve teaching practices and promote student learning. The word 'systematically' is important, as this approach is based on the belief that *continuous* professional development is key to enhancing school effectiveness. Core elements of professional learning communities include shared goals and values, and a shared vision around these (Aas, 2022a). This implies a common understanding of good teaching and

learning, as well as a collective commitment to methods that facilitate the best possible school experience for each student (Paulsen & Jenssen, 2023). Collegial collaboration is also central, where teachers work together in teams, share practices, discuss strategies, and provide feedback to each other. This cooperation encourages interdisciplinary learning and innovation. Another important aspect of PLCs is a focus on student learning, with continuous attention to student performance and the use of data to inform and adjust teaching practices. Workshops, courses, and study groups can also contribute to PLCs by strengthening subject knowledge and pedagogical skills (Aas, 2022a; Paulsen, 2021; Paulsen & Jenssen, 2023).

Additionally, school leadership plays a key role in the development and maintenance of PLCs, by facilitating processes, being supportive, actively participating, and helping to create a culture of openness and trust. A culture with psychological safety is important, as this makes people more willing to reflect and self-assess. It contributes to create a safe professional space, where school professionals can reflect both individually and collectively on their practice, and are open to reflection and improvement (Aas, 2022a; Abrahamsen, 2022; Abrahamsen & Aas, 2019; Paulsen & Jenssen, 2023).

PLCs also represent a way to combine various development strategies. With the school as the center, PLCs serve as arenas for vision work and to choose a common development direction based on the competencies and experiences of the staff, supported by external resources. Individual knowledge development is important and can be particularly fruitful if it arises from the collective. The role of school leaders as inspirators and facilitators of collective learning processes is crucial (Aas, 2022a; Abrahamsen, 2022; Paulsen, 2021; Paulsen & Jenssen, 2023).

A main reason for the increased attention given to PLCs is the recognition that sustainable school development must be planned and systematic. System changes in a school can involve PLCs at a school participating in a larger network of collaborating schools to develop knowledge across schools and districts (Aas, 2022a; Fullan, 2018; Paulsen, 2021; Paulsen & Jenssen, 2023).

School leaders face a number of challenges in their work with PLCs. These include balancing between the school's daily operations and long-term development work, integrating PLCs into the school's strategy and practice, and ensuring that the learning communities receive adequate resources and support. Furthermore, leaders must manage the resistance and barriers

that can arise both internally among staff and externally from authorities or society. The underlying desire is to enhance students' learning outcomes, through developing the professional growth of the community; the teachers, the leaders, and possibly other staff (Aas, 2022a; Paulsen, 2021; Paulsen & Jenssen, 2023).

The history of PLCs can be traced back to the investigative pedagogy of John Dewey in the early 20th century and the idea that teachers should research their own practice (Aas, 2022a; Dewey, 1997). Lawrence Stenhouse emphasized the teacher's role in curriculum development, and Donald Schön introduced the concept of the 'reflective practitioner' (Aas, 2022a; Schön, 1991; Stenhouse, 1975). With the school-based curriculum development of the 1970s, the focus shifted from individual teacher learning to learning within a community. Jean Lave and Etienne Wenger's concept of 'communities of practice' and an increasing attention to collective learning and organizational learning with dialogue as a key factor, underscored the importance of PLCs (Aas, 2022a).

Research interest in PLCs grew further with Judith Little's work on collegiality and Susan Rosenholtz's studies of collective schools, which showed that teachers who collaborated on teaching improvement were more successful than those who did not have such a community (Aas, 2022a).

The connection between PLCs and school development has been central from early studies to the present (Aas 2022a; Paulsen & Jenssen, 2023). The understanding of school development in PLC projects correlates strongly with organizational learning. Paulsen addresses the dilemmas school leaders face when attempting to develop professional collective knowledge in organizations. They balance between international ideas of performance management and control on one hand, and Norwegian ideals of collaborative learning and trust on the other (Paulsen, 2021; Paulsen & Jenssen, 2023).

Critics of the PLC project point out that an increased focus on performance management and rule governance can transform PLC work into more of a management process than a learning process. Thus, PLCs can become a tool in national governance strategy where leaders are expected to implement national policy and ensure that schools meet national requirements. This can lead to the development of management communities rather than learning communities (Aas, 2022a; Hargreaves, 2007).

PLCs thus represent a dynamic and historically anchored concept that has evolved in step with educational and societal changes. Today's PLCs reflect a mature understanding of the complexity of the teaching profession and the challenges of school leadership in a landscape characterized by the balance between autonomy and accountability (Aas, 2022a; Paulsen, 2021; Paulsen & Jenssen, 2023).

1.4 Different Levels of PLC

Based on her research in collaboration with Sharon Kruse and Anthony Bryk, Karen Seashore Louis developed a table showing various strengths or levels of PLCs, as shown in figure 1 below. These are de-privatized practice, reflective dialogue, collaboration, collective focus on student learning, and shared norms and values (Aas, 2022a, Kruse et al., 1994; Louis, 2015).

Louis developed this table and placed aspects of PLCs in a hierarchical order to illustrate different levels of professional communities, clarifying how schools can work to create a school culture where student learning is seen as a collective responsibility. This table highlights key components of PLCs and consists of different levels, where each level represents a strength or depth of the community. At the foundational level, we find de-privatized practice, which means that teachers' work is no longer isolated but open for collegial insight and support. This level is considered the furthest from a true collective practice. At the other end of the scale, we find shared norms and values, which represent the highest level and connect the community's thinking with the value foundation of the school's educational mandate (Louis, 2015).

1. Shared norms and values: The presence of strong, ethically-based and morally binding norms of behaviour.
2. Collective focus on student learning: Educators emphasise the importance of understanding how well students are learning rather than emphasising their teaching practice. There are shared efforts to assess student learning beyond standardized tests.
3. Collaboration: Professionals in the school work together to develop new approaches to teaching and learning that reflect their shared values.
4. Reflective dialogue: Educators engage in deep conversations in which current practices are seen as problematic.
5. 'De-privatized' practice: Educators visit each other's classrooms to learn from observation and to provide ideas for reflective dialogue and development (Kruse, Louis, & Bryk, 1995).

Figure 1: Louis' table (Louis, 2015 p. 11).

Although Louis distinguishes between "professional community" and "professional learning communities" in her original 2015 article, Marit Aas argues that Louis' table functions as a model for measuring the degree of a professional learning community in schools, and also as a tool for discussing and reflecting on practice changes that can promote a more shared teaching practice (Aas, 2022a; Louis, 2015, p. 11). This table can be used as a starting point for school leaders and teachers to identify and implement strategies that can strengthen the school's PLC (Aas, 2022a).

The table suggests a sequential understanding of development, but in practice, these levels operate in a more cyclical and dynamic process, where each level continuously influences and shapes the others. Schools working with PLCs must therefore recognize that the development of such a community is a complex and iterative process that requires continuous reflection and adaptation (Aas, 2022a; Louis, 2015).

1.4.1 De-privatized Practice

One of the most fundamental steps in developing a PLC is the de-privatization of practice. This requires a culture where teachers feel safe to share and discuss their practice with colleagues, seek feedback, and collaborate to improve teaching and learning. It is the responsibility of school leadership to facilitate such openness and establish structures that encourage collaboration and professional dialogue (Aas, 2022a; Louis, 2015; Paulsen & Jenssen, 2023).

De-privatization of practice in PLCs represents a significant shift from traditional, isolated teaching practices. Historically, many teachers have operated in a privatized culture, characterized by individual instruction, limited collaboration and resource sharing, and a tendency to keep challenges to themselves. This approach has often led to a perception that seeking help indicates incompetence and has limited opportunities for positive collegial feedback. However, this privatized approach has been challenged by increasing expectations of collective responsibility and collaboration in schools (Aas, 2022a).

The proposal for de-privatization through observing each other's teaching practices, however, may face resistance, as it could be perceived as a form of control and evaluation of teachers' work. This resistance can be rooted in the traditional valuation of autonomy and individualism in the teaching profession (Aas, 2022a; Paulsen, 2021).

John Dewey emphasized the importance of sharing experiences as a basis for learning. Dewey's theory of experience encompasses both active and passive elements, where the active side involves experimenting and 'learning by doing', while the passive side is characterized by receiving and reflecting on experiences. Dewey argued that no meaningful experience is possible without reflection, where reflection is key to understanding the consequences of actions and thus promotes deeper learning (Aas, 2022a; Dewey, 1997).

Applying Dewey's model in school leadership, particularly in relation to de-privatization of practice, requires that school leaders facilitate both observation of teaching activities and systematic reflection on these activities. This will contribute to new learning and development, but school leaders must also be aware that the privately practicing teacher culture is still dominant in many schools. A leadership initiative focusing on sharing experiences of teaching practices, therefore, might face resistance from some teachers.

Teachers' professionalism is best developed through professional communities that value both individual contributions and collective knowledge development (Aas, 2022a; Hargreaves & Fullan, 2012). School leaders must ensure that there is strong psychological safety that makes sharing of practices safe, without fear of consequences for the one sharing (Paulsen & Jenssen, 2023).

1.4.2 Reflective Dialogue

The next level involves school professionals who engage in in-depth conversations with colleagues about practices that are perceived as problematic. School leaders must themselves develop metacognitive skills regarding their own practice. Furthermore, they must contribute to ensuring that the reflective dialogues about problematic practices become more than just single-loop learning. School leaders must also position themselves within the change process in order to practice a metacognitive leadership style (Aas, 2022a; Louis, 2015).

Learning in school leadership is not just about acquiring more knowledge, but also about developing a deeper understanding and reflection around this knowledge. Critical reflection is necessary for learning to translate into changes in practice. This concept is supported by Argyris and Schön's development of Dewey's experiential concept, where they introduce the concepts of single-loop, double-loop, and triple-loop learning (Argyris & Schön, 1978). These levels of reflection contribute to understanding how reflection about, in, and for practice can lead to significant changes (Aas, 2022a; Argyris & Schön, 1978).

Jan Robertson links metacognition and change management, highlighting how school leaders who actively engage in change processes and develop metacognitive skills become more effective. This is in contrast to leaders who position themselves outside the change processes and demonstrate a less effective single-loop learning style (Aas, 2022a; Robertson, 2013).

Theo Dawson argues that leaders with well-developed metacognitive skills are better problem-solvers, more critical thinkers, and better at managing complexity and conflicts. In Norwegian school leader training, group coaching is used as a method to develop these skills (Aas, 2022b; Dawson, 2008).

Argyris, Schön and Robertson point out leadership challenges related to facilitating reflective dialogues where teachers engage in in-depth conversations about practice. This requires the school leader themselves to have developed metacognitive skills and to lead dialogues that go beyond single-loop learning or Dewey's trial-and-error method. The school leader must also actively position themselves within the change process to be able to practice an effective metacognitive leadership style (Aas, 2022a; Argyris & Schön, 1978; Dewey, 1997; Robertson, 2013).

1.4.3 Collaboration

On the third level, there is a collective focus on, and awareness of, further developing a good collaboration culture. Here, professionals in school come together and share and develop perspectives on learning and teaching based on shared values. School leaders must clarify the purpose of the students' education. They need to clarify questions like "what do we want our students to learn", "what do we want our students to be", and "how can we know that the students are learning". Furthermore, they should facilitate collaboration between teachers, and they must clarify the purpose and priorities in such collaboration (Aas, 2022a; Louis, 2015).

Richard DuFour and Robert Marzano have presented four leadership tasks that are crucial for facilitating teacher collaboration in a professional learning community. These tasks include forming meaningful teams where teachers collaborate towards common goals, developing meeting plans that ensure regular time for teacher collaboration, and being clear about the purpose and priorities of the collaboration. In addition, the school owner has a special responsibility to support schools with adequate resources and competence development (Aas, 2022a; DuFour & Marzano, 2011; Paulsen, 2021; Paulsen & Jenssen, 2023).

Further, leaders must work to establish a results-oriented culture. To determine whether students are learning and to adapt teaching to their individual needs, teachers and leaders must seek evidence of student learning and use these findings in the continuous development of the learning community. Aas argues that a results-oriented culture is characterized by everyone working towards SMART goals, which are strategically linked to the school's and district's goals, measurable, attainable, results-oriented, and time-bound. This means that each teacher collaborates with others to collect and analyze student results to inform and improve their own practice and the team's collective practice (Aas, 2022a).

Andy Hargreaves argues that enforced collegiality can create a bridge between school development and teachers' personal development. Included in this are administrative measures such as binding to fixed time, mandatory participation, predictability, and other administrative regulation (Hargreaves & Torbjørnsen, 1996).

Administrative measures in the form of enforced collegiality can create tensions both among teachers and between school leaders and teachers (Aas, 2022a; Aas & Brandmo, 2018). In addition, managing interaction between teachers in the school's many teams or PLCs requires that school leaders practice close-to-the-ground leadership, which requires finding a balance between controlling and creating motivation for growth and development among the teachers.

1.4.4 Collective Focus on Students' Learning

The fourth level of PLC development involves staff developing a collective understanding of how students learn. Furthermore, this collective understanding manifests itself in joint work for the further development of specific practices (Louis, 2015). Here, teachers work together to develop and implement strategies that directly affect students' learning and performance (Aas, 2022a).

Schools as organizational units are loosely coupled systems, meaning there is often a disconnect between formal management structures and the school's core business, namely learning (Paulsen & Jenssen, 2023). This disconnection can lead to challenges with coordination and oversight across the school's various levels. It is therefore important to establish communication structures to promote sense-making, a process that involves conversations and discussions to achieve a common understanding of the school's intentions and activities (Paulsen & Jenssen, 2023).

Sense-making is seen as an important part of the collective action in the school as an organization, where actors together explore and define the school's core business. A strong, shared cultural understanding is essential for creating meaning and coherence between goals and actions. When collective decisions feel meaningful, the commitment to implement these actions is strengthened. Conversely, a lack of shared meaning can lead to inaction (Aas, 2022a; Paulsen, 2021).

To promote sense-making in schools, and thus a collective focus on student learning, it is crucial to establish arenas where this can happen. PLCs in Norway are examples of such arenas, where critical examination and exploration of teaching practices can take place to improve them and strengthen the structures that support this work. It can be challenging to lead such professional discussions towards a common understanding of potential practice changes (Aas, 2022a).

Therefore, there are various leadership challenges that arise when working to create a collective focus on student learning. This involves developing a shared understanding of student learning as the basis for joint work on student assessment that goes beyond test results. School leaders must be prepared for systemic contradictions and be skilled in leading professional discussions to ensure that dialogue is converted into real practice changes. Additionally, they must support this work by ensuring resources, time, and giving teachers the necessary autonomy to explore new approaches to teaching (Aas, 2022a; Louis, 2015).

1.4.5 Shared Norms and Values:

At the highest level, we find strong ethics-based and morally binding norms related to what is considered preferred behavior. School leaders must themselves model and live according to the values they wish to permeate the school. In doing this, they must have good ethical awareness and awareness of different ethical perspectives, including legal, care ethics, and professional perspectives (Aas, 2022a; Louis, 2015).

In the Norwegian school system, school leaders have historically been considered as prominent among equals, creating a flat hierarchical structure based on democratic principles with little distance between leaders and teachers (Aas, 2022a; Paulsen & Jenssen, 2023). However, this approach is under pressure from global trends focusing on control through testing and accountability of school leaders and owners. These new demands could potentially transform the traditional flat structure into a more hierarchical model, increasing the distance between teachers and principals (Aas, 2022a; Irgens, 2007; Paulsen, 2021; Wennes & Irgens, 2015).

The concept of democratic leadership has been central to distributed leadership practices, with arguments that the distribution of leadership contributes to more democratic patterns of

action in schools. However, democratic leadership is just one aspect of distributed leadership (Irgens, 2007; Paulsen & Jenssen, 2023; Wennes & Irgens, 2015).

The Norwegian democratic leadership tradition is based on the idea of short distances between leaders and teachers and communication characterized by respect, trust, and recognition. Democratic leadership is associated with the so-called Nordic leadership profile, combining system responsibility and demands with a democratic leadership style based on equality and collaboration (Irgens, 2007; Paulsen & Jenssen, 2023; Wennes & Irgens, 2015). Paul Otto Brunstad highlights gentleness as a valuable virtue or characteristic, especially within the framework of credible and listening leadership, a practice originating from antiquity. He argues that in Professional Learning Communities (PLCs), the conversation community is not only important but should also be characterized by moral and egalitarian dialogues (Brunstad, 2021).

Åse Slettbakk and Siw Skrøvset also emphasize the importance of morality and ethics in leadership, especially in developing PLCs (Aas, 2022a; Slettbakk & Skrøvset, 2021). They argue that an appreciative leadership style involves leadership that takes values seriously. This does not mean using values as a tool for efficiency, but rather the leader personally commits to and reflects these values. It involves increased awareness of the leader's own values and how they are expressed through his or her decisions.

Being a school leader involves having power and responsibility to use this power for the best of children and youth. Decisions related to this power should be considered from various ethical perspectives and how these perspectives contribute to the development of what he calls personal moral integrity. There are ethical considerations from multiple perspectives: legal, critical, care ethical, and professional. Each of these perspectives offers different ways to approach ethical dilemmas. A leader must consider all these alternatives, and if the decision is to be ethically correct, it must also be taken with moral integrity. Moral integrity is about instinctively doing what is right for others, focusing on others' interests rather than one's own (Aas, 2022a; Branson, 2010; Forssten & Söderström, 2019).

In light of the Norwegian democratic leadership tradition, listening leadership, appreciative leadership, there arise several leadership challenges in the work of developing shared, strong, and ethically-based norms related to desired behavior in schools. School leaders must find a balance between responsibility and demands at the system level and leading in a democratic

manner, characterized by equality and collaboration. Furthermore, they need to be conscious of how different ethical perspectives affect their decisions and work to develop their own and the teachers' moral integrity (Aas, 2022a; Paulsen & Jenssen, 2023).

There is a close connection between leading a common value work in Professional Learning Communities (PLCs) and living and clarifying the same values in one's own leadership. Being aware of how different ethical perspectives inform and influence one's own leadership decisions can be helpful when school leaders develop their own and teachers' moral integrity (Aas, 2022a).

1.4.6 Summary of Karen Seashore Louis' Table and Challenges Related to PLCs

Based on a table by Karen Seashore Louis, various leadership challenges at five levels of PLCs and relevant theory to understand these challenges are discussed. The five levels include de-privatized practice, reflective dialogue, collaboration, collective focus on student learning, and shared norms and values.

Middle managers and other school leaders can work systematically to establish, develop, and lead PLCs in their schools. This includes facilitating teachers to observe each other's teaching and engage in reflective dialogues about challenging practices. Furthermore, school leaders should promote a committed collaboration between teachers with the goal of developing new perspectives on teaching and learning. Organizational learning is another important aspect, where school leaders should contribute to developing a shared understanding of student and learning perspectives that underlie the school's teaching practice. The fundamental norms and values should be binding for the school's educational mission.

School leaders face several leadership challenges in leading collective processes among school professionals. Sharing experiences between teachers requires school leaders to facilitate both observation and reflection on teaching activities. Leading reflective dialogues requires the school leader to have developed metacognitive skills. School leaders must be willing to position themselves within change processes to be able to practice an effective metacognitive leadership style. Including all teachers in the development of the school's teaching requires administrative leadership measures such as enforced collegiality, which can meet resistance, especially in schools where the tradition of privately practicing teachers is

still strong. Another challenge in leading PLCs may be to lead conversations and sense-making to achieve a common understanding of the teaching mission that leads to practice changes. A structure for leading professional discussions can support the process when different mental models are to be united in a common student view, learning view, and norms and values that will characterize the school's behavior.

In chapters four and five, I present and discuss research findings that show that the middle managers I interviewed in my project identify with and encounter many of the various challenges and opportunities presented above.

1.5 The Role of Middle Managers in the Development of PLCs

So far, I have discussed the role of school leaders in the development of PLCs. There are various leadership roles in schools, and below, I will delve deeper into the role of middle managers and the unique position this role holds in the development of PLCs.

Middle managers in schools often have responsibility for development and change work in their departments and in the school (Abrahamsen, 2022; Paulsen & Jenssen, 2023). Their role has evolved from an administrative function to a more process-oriented and development-focused leadership role. They are positioned at a "middle level" between teachers and the principal, becoming crucial in shaping strategic levels and in planning visions, goals, and directions for development work (Abrahamsen, 2022).

While middle managers are increasingly seen as an important leadership resource, research shows that the role can also be an untapped resource in schools' efforts towards school development. Newer roles under middle managers, such as teacher specialists and subject leaders, have also begun to play an important role in development work (Abrahamsen, 2022; Abrahamsen & Aas, 2019).

Therefore, it is important for middle managers to participate in leading collective processes and contribute to creating meaning with the chosen directions the organization is working towards. They play a central role in this work, both in providing direction and exerting influence. The role of a middle manager can encompass many different behavior patterns, and

thus is not unambiguous in role formation and in creating meaning with one's own role development (Abrahamsen, 2022).

Middle managers become key to the work of leading learning communities and curriculum renewal. Middle managers have proven to be important in school leadership and have encountered various challenges and interpretations in different contexts (Abrahamsen, 2022; Abrahamsen & Aas, 2019).

Both the school system in Norway and the role of school leaders are changing. Greater demands and more external pressure contribute to the need to restructure school management and distribute responsibility more widely (Paulsen & Jenssen, 2023). A report from Skolelederforbundet shows that school leaders, especially principals, experience a lot of responsibility and a high workload (Baldersheim et al., 2023). In a Fafo rapport from 2019, it is emphasized that without measures, attracting applicants to leadership positions in schools will be challenging (Bjørnset & Kindt, 2019). Tasks related to school development are tasks school leaders enjoy, but they experience that there is too little time for these tasks, and the time for this has decreased over the years (Baldersheim et al., 2023; Bjørnset & Kindt, 2019).

It can be difficult to change teaching practices (Aas, 2022a; Paulsen & Jenssen, 2023). Nonetheless, there are conditions that influence professional practice, including the curriculum, legislation, and government initiatives and measures. School management and how teachers collaborate also matter for changing practice.

In this study, I focus on middle managers and the development of PLCs. The curriculum renewal LK20 and the work with PLC development are closely intertwined for many school leaders during the period this study is conducted, 2022-2023 (Paulsen & Jenssen, 2023). There is an expectation from political authorities that changes should be led through both the national curriculum and through local efforts to build collective understanding and motivation within the professional community (Paulsen, 2021). In part report 1 of "Evaluation of the Curriculum Renewal", it is emphasized that school leaders play a key role in the implementation of the Curriculum Renewal (Burner et al., 2022). It appears that there is a varying degree of support and effectiveness in school leaders' implementation work, which affects the success of the implementation. The implementation seems to work better where school owners are actively involved (Aas, 2022a; Baldersheim et al., 2023; Lillejord, 2022; Paulsen, 2021; Paulsen & Jenssen, 2023).

The report "Evaluation of the Curriculum Renewal for Vocational Education, Part Report 2" reveals that school leaders feel they have not had enough time to carry out sufficient preparation and implementation (Skålholt et al., 2023). This problem is more prominent in small municipalities with limited administrative capacity (Ottesen, et al., 2021). This report also points out that school leaders spend significantly less time on school development work than they find necessary and desirable (Skålholt et al., 2023). These reports indicate the importance of school leaders and owners being engaged in the implementation of the Curriculum Renewal, while they experience a lack of time to carry out the work as desired. A primary reason that many find the role of school leader challenging is the high workload and the constant balance between administrative, short-term tasks, and the need for long-term educational development. Regarding school leaders who are uncertain about or do not wish to continue in their professional career as school leaders, the workload is a significant factor (Skålholt et al., 2023). As I will show in my study, several of the interviewees point out that limited time and high workload are challenges in the development of PLCs.

1.5.1 Middle Managers and Leading the Development of PLCs in the Context of Existing Leadership Models

The difference between Instructional Leadership and Transformational Leadership can be illustrated by their different characteristics, where the former is often described as a top-down approach to school leadership with a focus on coordinating and controlling teachers' instruction, while the latter takes a bottom-up approach. Instructional Leadership is characterized by a directive role over teachers' instruction, while Transformational Leadership is more democratic, focusing on inspiring and motivating. A central issue has been the effect of different leadership functions on the school as an organization and especially on student academic performance. Studies have identified certain leadership behaviors as more effective than others. For example, communicating goals, high expectations, engaging and motivating staff, and monitoring student progress have been shown to have positive effects on student learning outcomes. However, it has been suggested that effects may vary depending on factors such as school size, school level, and socio-economic status (Aas, 2022a; Paulsen, 2021).

In recent years, the aforementioned models have undergone revisions, leading to them increasingly resembling each other, especially regarding functions, leadership behavior, and

key skills. Research suggests that Norwegian school leaders have a complex approach to leadership, drawing inspiration from both instructional leadership and transformational leadership while attempting to balance a combination of top-down and bottom-up leadership styles (Aas & Brandmo, 2018). Robinson has presented what she calls student-centered school leadership (Aas, 2022a; Robinson, 2011). These models present an important source of knowledge about school leadership, accumulated through decades of research. Norwegian school leaders typically use a mix of 'top-down' and 'bottom-up' approaches (Aas & Brandmo, 2018; Brandmo, 2022).

1.6 Importance of School Owners in the development of PLCs

Paulsen shows that school development often occurs in close collaboration with school owners (municipalities and county municipalities), as shown in figure 2.
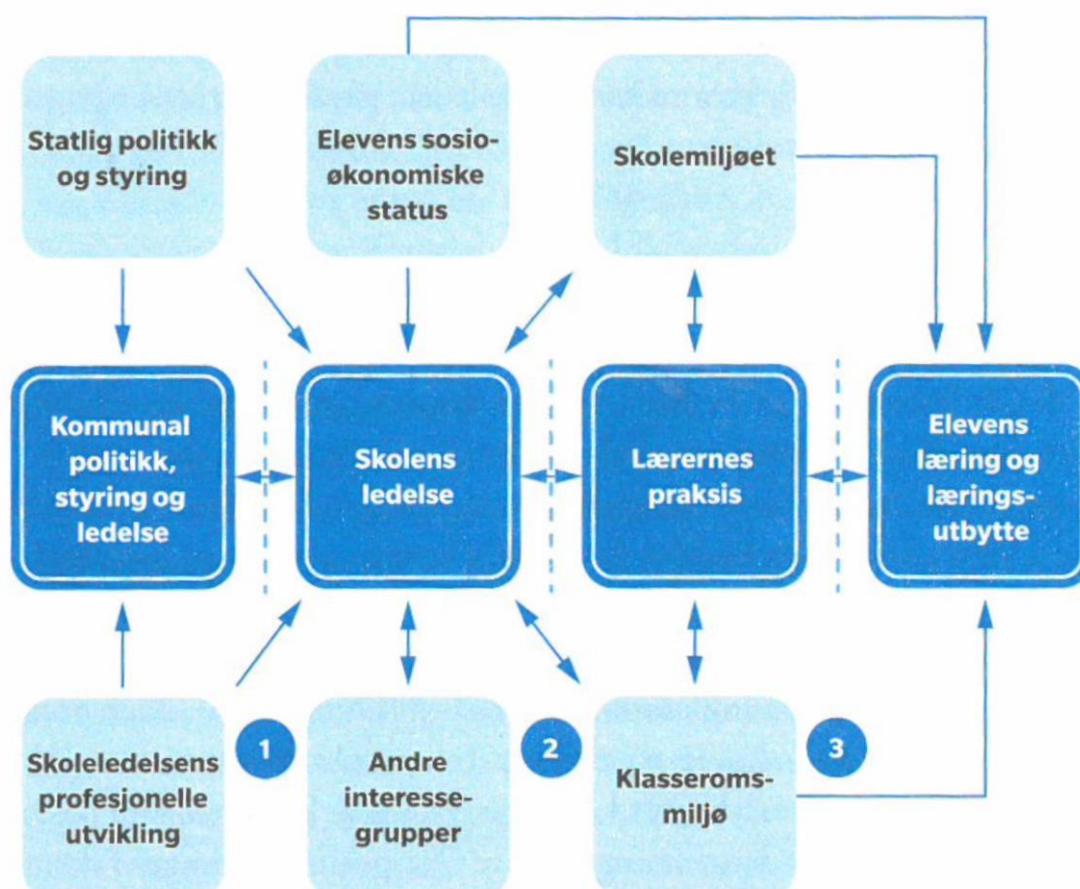
Figure 2: School development in collaboration with school owners (Paulsen, 2021, page. 18).

In the current curriculum, LK20, the Overarching part, chapter 3, "Principles for School Practice" are described. Here the professional community is the basis to ensure good school development, culminating in describing "Professional Community and School Development" in chapter 3.5 (Kunnskapsdepartementet, 2017). The focus is on the community, where the responsibility for facilitating good development of the school is shared between the school owner, school management, and teachers. Together, they must ensure that the school's practice is in accordance with the curriculum, LK20. School leaders and school owners should collaborate to facilitate the assessment and further development of a practice that contributes to learning and development for the student. As shown in my research, several middle managers wish for school owners to facilitate collaboration across different schools, and they state that they find such collaboration good for the development of PLCs.

1.7 Problem Area

The aforementioned constitutes the basis for the subsequent research. In an organization that is both complex and tasked with leading the development of PLCs, middle managers play an essential role. In addition, they have a variety of tasks beyond the development of PLCs. The focus of this study will be limited to the challenges and opportunities that middle managers encounter in the development of PLCs at their own schools. An underlying assumption is that school development occurs through interaction, and a shared understanding and purpose arise among all those involved when there is agreement on common goals that the organization is aiming for. This aligns with a relational and social constructivist perspective, where collaboration contributes to shaping a collective understanding and intention in the work. In other words, meaning is not created in isolation, but in conjunction with the employees (Berger & Luckmann, 2011; Paulsen, 2021; Paulsen & Jenssen, 2023). For the process to be meaningful for each individual, it is necessary for all employees to participate in shaping this understanding and actively contribute to the professional community (Kunnskapsdepartementet, 2017).
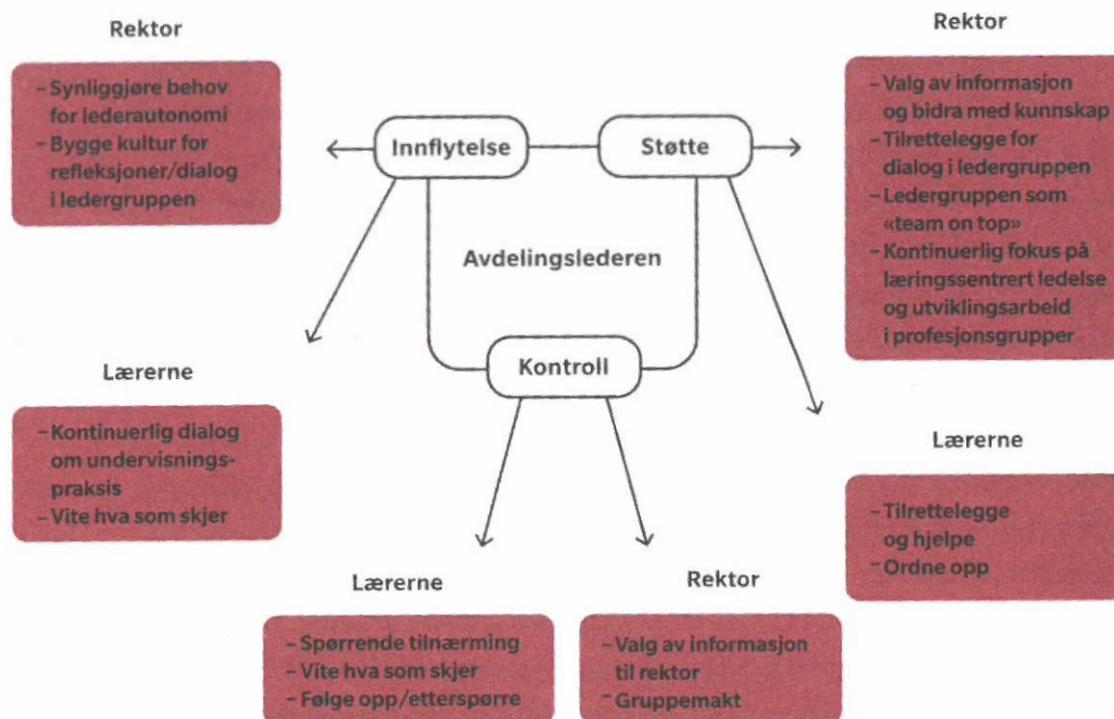
Figure 3: The importance of the role of middle managers in schools is illustrated by Hedvig N. Abrahamsen in the figure above (Abrahamsen, 2022, p.194).

1.8 Contributions to the Research Field and Professional Field

This research will provide insights into the academic field by examining the role middle managers play in the development of PLCs in the school sector. The study will explore middle managers' perspectives on their scope of action in this development process, looking at both opportunities and challenges. In light of my own research and the research that already exists in the field, I will finally discuss measures that can make middle managers even more potent in the development of PLCs in schools.

Much of the research available to date is from an international context (Abrahamsen, 2022; Abrahamsen & Aas, 2019). Therefore, I will contribute to this research area by addressing middle managers and the development of PLCs in schools in a Norwegian context. This paper seeks to answer the following question: "What do middle managers in Norwegian schools experience as opportunities and as challenges when it comes to the development of PLCs at their own school".

The project is based on qualitative methods, and data is collected through interviews. I have chosen to relate to middle managers in upper secondary schools, in schools with student numbers from 500 and up. As already mentioned, a middle manager can have a significantly different role in the development of PLCs at a school with, for example, 700 students, than a middle manager has at a school with, for example, 50 students. The focus will therefore be specifically on the role of middle managers in the development of PLCs in medium and large schools in Norway, at the upper secondary level.

The focus will be on how middle managers, together with their staff, create meaning within a professional community and develop a common understanding with the goal of improving various dimensions or aspects of PLCs. The information gathered will be further interpreted, and I as a researcher will critically assess which elements can be generalized and applied in different contexts. In addition, I will look at various administrative challenges associated with developing PLCs.

The arrow in figure 4 shows how general and context-neutral knowledge can be adapted and modified to be relevant in specific local practices, and vice versa (Postholm & Jacobsen, 2018). Research knowledge must be fine-tuned and transformed to meet local needs. The figure highlights two main processes in the transfer of knowledge from the local level to research-based insight. Ideally, in research, there should be an ongoing conversation between practical experience and theoretical knowledge. In this way, insights from the practical field can be validated for broader application, and the theoretical knowledge base can thus be expanded. The data I collect will be thoroughly and systematically interpreted, and I as a researcher will critically assess which elements can be generalized and applied in different contexts.
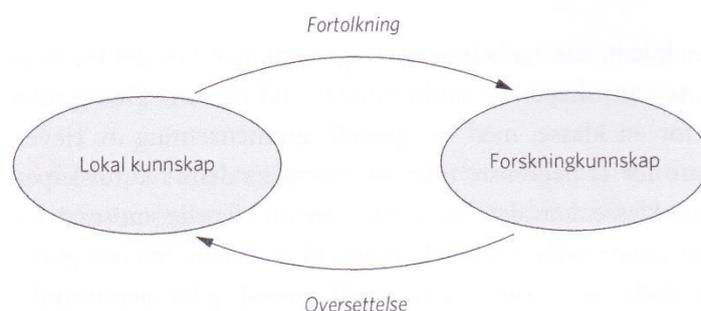
Figure 4: Mutual influence between local knowledge and research knowledge (Postholm and Jacobsen, 2018, p. 18).

To what extent can general and context-neutral knowledge be adapted and modified to be relevant in specific local practices? The goal of research is to produce knowledge that is valid beyond a single context. Practically, this means that we seek knowledge that can be valid in many different classrooms, schools, and potentially in different countries. However, over time there has been a recognition that the knowledge generated by research rarely can be directly transferred from one context to another. To achieve this, research knowledge must be adjusted and adapted to local knowledge (Postholm & Jacobsen, 2018; Røvik, 2007). Local knowledge is what a teacher gradually learns about their class, colleagues, and school. This knowledge is highly context-dependent, often limited to a specific class, collegium, or school. When a teacher gets a new class, the knowledge must, to some extent, be developed anew. Local knowledge is valid within a very limited context. Good teachers, school leaders, and others depend on such knowledge to perform their work well.

When we talk about research in schools, it means that teachers and other staff systematically gather and process information about their work situation. At the same time, one must be aware that knowledge developed locally can have significant limitations. Firstly, it is often strongly bound to time and place, and may only apply to a special class for a limited period. Attempts to transfer this knowledge to another class or school can result in a serious 'mismatch' (Postholm & Jacobsen, 2018).

For knowledge to be able to 'travel' from one context to another, it must be made more independent of the specific context. Thus, it becomes more abstract. Humans are fallible, and the collection of local knowledge can reinforce misconceptions we already have. Research shows that we often seek information that supports our own views and overlook conflicting

ones (Postholm & Jacobsen, 2018). This way, we can end up reinforcing prejudices instead of continuously learning something new. Research knowledge is often more abstract than local knowledge, more independent of the context because it is collected and processed by an outsider, such as a master's student. This provides a different view of reality than those who live in it at any given time can provide. But increased levels of abstraction and distance mean that research knowledge is often perceived as less valid or applicable (Postholm & Jacobsen, 2018).

Local knowledge and research knowledge are deeply dependent on each other, as illustrated in figure 4 above. The top arrow shows how local knowledge is processed and interpreted to appear more general and context independent. The bottom arrow shows how general and context-independent knowledge must be "translated" to be applied in a specific context (Postholm & Jacobsen, 2018).

The idea is that there should be a continuous dialogue between local and research knowledge. Through this dialogue, local knowledge can be made valid for more people, and the range of validity of knowledge can be expanded. School leaders should have a researcher's view of their own operations, and try to transform everyday learning into systematic mapping of their own reality, and continually confront this knowledge with more general research knowledge. The learner systematically combines insights into both local and research knowledge (Postholm & Jacobsen, 2018).

Through this study, I will be able to offer interpretations of the challenges that some middle managers experience in their work to develop PLCs within schools, which may be of value to the research community. It will also be advantageous for me, in my role as a middle manager, to understand how others interpret, lead, and develop their PLCs. Especially in the current moment, where there are challenges and opportunities related to PLCs and the implementation of LK20. The study's contribution lies in highlighting the opportunities and challenges middle managers face in development of PLCs and recognizing their important role in this process. This will be an important addition to the professional field; it provides insight into the opportunities and challenges middle managers experience in the development of PLCs at their own school, and suggests ways to make middle managers even more potent in the development of PLCs. To date, such studies have been conducted abroad, and the importance of middle managers in the development of PLCs has been theorized

(Abrahamsen, 2022; Abrahamsen & Aas, 2019). My contribution will therefore be to conduct relatable research, but in a Norwegian context.

1.9 Summary and Future Structure of the Thesis

This study focuses on the middle manager's role in the development of Professional Learning Communities (PLCs) in schools. Middle managers are often in a unique position, being the closest to teachers and other pedagogically responsible staff who make up the PLCs. Several researchers argue for the importance of middle managers' roles in the development of PLCs (Abrahamsen, 2022; Abrahamsen & Aas, 2019). I will now, through a qualitative study (interview), investigate the opportunities and challenges middle managers experience in the development of PLCs, and I will discuss ways forward that can enable middle managers to contribute even more to the development of PLCs.

The study is based on interviews with four middle managers who share insights into how school development is managed within their organizations. A key focus moving forward in the study is on the leadership aspect. I have now positioned the middle manager within a given context. This context includes overarching requirements for the development of PLCs. Middle managers are individuals who must fulfill a role, perform tasks, build relationships, and lead through interaction, based on their own personal experiences and competencies. I aim to convey middle managers' perspectives and contribute to research on how to improve school development and the development of PLCs by facilitating an enhanced scope of action for middle managers by raising awareness of opportunities and challenges for middle managers in this work. A middle manager does not stand alone in this task but is part of a leadership team at a school. The size of this team depends on the size of the school. In addition, colleagues and partners influence and contribute to the school's development. The study will highlight middle managers' challenges and opportunities while also pointing out that these challenges are influenced by the staff and the situation, which does not remove, but rather clarifies, the responsibility resting on the entire school's staff (Abrahamsen & Aas, 2019; Paulsen & Jenssen, 2023).

The theoretical foundation of the study, which centers on social constructivist theory and the co-creation of meaning by leaders in interaction with others during the development of PLCs at various schools, will be covered in chapter two. The methodology chosen and the data

collection process will be detailed in chapter three. Chapter four will present the empirical data and analyze the research findings. Finally, chapter five discusses the analysis and the research findings in light of the study's contribution to the research field and potential areas for further research.

2 Theoretical perspective

2.1. Social Constructivism

Social constructivism is based on the idea that social reality is not static over time like physical objects but is constantly changing through people's actions and interactions. This creates a dynamic that causes social phenomena to change over time. Therefore, all knowledge about social reality will be time-limited, and it is not possible to establish absolute laws that apply over a long period. A social constructivist approach also acknowledges that it is impossible to separate the study object from the researcher themselves. Immanuel Kant argued in "Critique of Pure Reason" that we as humans can never be entirely sure that our understanding of an object reflects the object's true nature (Kant et al., 2009). What we can talk about is our perception of the phenomenon. Modern scientific theory calls this view constructivism because we do not necessarily perceive objects as they actually are, but rather create a representation of them. Our understanding of reality, therefore, becomes one perception of reality, not reality itself. Since perceptions are not reality, they can change when new knowledge arises. Knowledge is therefore not static, but in continuous change and renewal.

When studying social phenomena, it is impossible to separate the researcher from the study object. The researcher must interact with those they are studying. By dissolving this distinction, the foundation is laid for an interaction between a person and the surroundings they operate in. The person is influenced by and influences the surroundings and is considered an actively acting and responsible actor. Furthermore, knowledge is considered a construction of understanding and meaning created in the meeting between people in social interaction. Researchers cannot position themselves above the world and claim that they have a neutral view of reality. The understanding of reality occurs in a continuous dialogue between the researcher and the research subject. Reality is constructed together with others, leading to new insights (Postholm & Jacobsen, 2018).

Lev S. Vygotskij's and Mikhail M. Bakhtin's views on words assert that words exist in connection with a person associated with a social setting, which means that the context people live in shapes and determines the meaning people place in different words and expressions. Therefore, words cannot exist as an abstract system. According to them, the social, cultural,

and historical setting in which people live has implications for their perception and understanding (Vygotskij et al., 2012).

In recent times, much of behavioral and social scientific research has adopted a social constructivist epistemology for their empirical studies. In short, such an epistemology assumes that people do not construct their perceptions of the world alone, but do so in interaction with others. Vivien Burr writes that "it is through the daily interactions between people in the course of social life that our versions of knowledge become fabricated" (Burr, 2015, p. 2). People, through interaction with others, create themselves. We see ourselves in others, and through this, we form an understanding of who we are (Postholm & Jacobsen, 2018).

All the constructivist epistemologies share a common starting point, namely that the world is not objective, but rather something that we humans more or less actively construct. Since there can be many different constructions of the same reality, it is difficult to say that one is true and another is false. It may be that different researchers emphasize different aspects of reality, or that reality presents itself in different ways to different researchers, and therefore they perceive it differently. Instead of talking about objective truth, we can at best talk about intersubjectivity, namely that several people have the same perception of reality. That several people agree that something is a good description of reality is still no guarantee that it actually is reality (Postholm & Jacobsen, 2018).

Knowledge about reality is thus something that develops through ongoing dialogue and interaction between people, nature, and culture. The meaning and knowledge about the world are formed in this dialogue and interaction (Burr, 2015). Social constructivism is based on the idea that there is no clear boundary between the examined object and the observer. Immanuel Kant argued that one can never be entirely sure of the actual existence of a study object. What we can speak about is our perception of the phenomenon. This knowledge is subjective and constructed by people who are part of a social context, to a greater or lesser extent actively involved (Burr, 2015).

2.1.1 Challenges with Social Constructivism

While social constructivism has provided significant insight into how people create and understand their social reality, it has also faced criticism. A central challenge with social constructivism is the tension between subjectivity and objectivity. Social constructivism emphasizes the individual's experience and interpretation of reality, which can vary significantly from person to person. This leads to questions about whether there is an 'objective' reality independent of individual perspectives. Critics argue that without an objective understanding of reality, social constructivism may undermine the possibility of common understanding and communication (Burr, 2015). Social constructivism's focus on how reality is constructed through language and discourse also opens questions about power and inequality. Who has the power to define 'reality', and how does this affect social inequality? For example, dominant groups within a society can influence and shape the social construction of reality in ways that strengthen their own position and marginalize others. Another challenge is how social constructivism relates to historical and cultural contexts. Different societies and cultures will have different ways of constructing reality, which can lead to misunderstandings and conflicts when these perceptions of reality meet. This raises questions about the degree of universality or relativity in social constructivist interpretations. Social constructivism, by considering scientific knowledge as a product of social processes and conventions, can contribute to undermining the authority and objectivity of science. This can lead to a rejection of scientific findings as 'just another narrative', which is problematic in discussions about, for example, climate change or vaccination. Methodologically, social constructivism represents a challenge for researchers. How can one study socially constructed realities in a way that is both valid and reliable? Researchers must navigate a landscape where 'data' are often subjective narratives and experiences, which can make it difficult to establish clear, transferable findings (Burr, 2015; Postholm & Jacobsen, 2018).

2.1.2 Social Constructivism as the Theoretical Perspective Utilized in this Thesis

Based on the aforementioned, this thesis positions itself with the understanding that our understanding of reality is constructed (Burr, 2015). Social facts are created through conventions or agreement that certain things have specific properties. Language is used to convey and teach these concepts to others.

2.2 Social Interaction, Construction, and Personal Identity

Berger and Luckmann developed a comprehensive theory of the social that integrates traditional science with 'everyday wisdom' (Berger & Luckmann, 2011). Their theory promotes three views: Society is created by people, society is an objective reality, and man is a product of society (Berger & Luckmann 2011; Postholm & Jacobsen, 2018). Their theory presents two distinct approaches to reality construction. The first approach is the construction of social reality, which includes habits, externalization, roles, institutions, and objectification that collectively shape social reality. The second approach is the construction of the subjective perception of social reality, which is the social world and norms internalized through the socialization process (Berger & Luckmann, 2011; Postholm & Jacobsen, 2018).

Social interaction is a fundamental component of social constructivism. Vygotskij explored social interaction with significant others to understand human consciousness (Postholm & Jacobsen, 2018; Vygotskij et al., 2012). He considered human consciousness as a product of social interaction with significant others, through cultural influence and psychological phenomena. He pointed out that semiotic tools, such as language, act as mediators of social interaction within a sociocultural context, and play a crucial role in the development of collaborative dialogic processes in humans (Postholm & Jacobsen, 2018; Vygotskij et al., 2012). In this study, I focus on these dialogic processes, where people shape and influence each other. I will also argue that psychological phenomena contribute to shaping the interaction and play a role in shaping and providing insight about other people and the situations they find themselves in.

The fact that language is a social construct created by people interacting affects how we perceive and recognize reality. Vygotskij argued for integrating theories of action and consciousness based on socially meaningful activities, and he asserted that activities that are socially mediated contribute to developing advanced forms of human consciousness. He emphasized the importance of language, culture, and social interaction over the individual (Postholm and Jacobsen, 2018; Vygotskij et al., 2012).

The use of language in learning processes acts as a cultural tool, for instance, to draw on past experiences or to reflect on one's practice. This study acknowledges that language contributes to shaping our knowledge, both through the community's collective reflection on knowledge and through how school leaders talk about their opportunities and challenges, thus

constructing knowledge about reality through dialogue. The words and expressions used reflect an understanding, knowledge, and culture that encompasses the personal, the local, and the national. This demonstrates the connection between the individual and society, and how the world makes sense to the individual.

Identity construction is an ongoing process: school leaders construct their own identity, among other things, by negotiating in relation to those around them (Møller, 2009; Postholm & Jacobsen, 2018). One can understand how school leaders understand their own identity through the stories they tell, or construct, about themselves. Those who listen to school leaders respond to what is said based on their own experiences and create meaning in the feedback to school leaders. Such co-creation of identity is important to be aware of as a middle manager in the development of PLCs. All parties contribute to this co-creation of identity and are mutually dependent on each other.

2.3 A Relational View of Leadership

From a relational perspective, I view leadership as a process consisting of social constructions, emphasizing participation in interaction. This implies that leadership operates in relation to other positions and is therefore interactive and culture-sensitive. Leadership is about relationships, and this can be observed in the interactions between middle managers and other employees in the work of developing PLCs. Leadership is shaped by positioning, negotiation, and trust-building work. A main point is that risk and opportunities constitute significant parts of the leadership work, and that the relationships affect the status of authority (Møller, 2009; Postholm & Jacobsen, 2018).

In trying to understand the opportunities and challenges with the work of developing PLCs, this perspective is important in my study. Understanding how leadership is shaped through interaction with others has its core in that several parties are involved in the interaction. With this thought in mind, the focus can shift away from the leader as an individual to more on the actual leadership activity. Here, attention is directed towards the leader's role, including valuing employees, providing feedback, and relationship-building, so that everyone feels well taken care of and understood (Paulsen, 2021; Paulsen & Jenssen, 2023).

In the overarching part of the curriculum, relational work is described as an essential tool to promote the professional community (Kunnskapsdepartementet, 2017). It is also pointed out that the responsibility for the professional community should be shared between the school owner, school leadership, and teachers. The focus in leadership shifts from being individual-based to being more a collaboration-driven activity. This collaborative aspect becomes especially clear in distributed leadership (Brandmo, 2022). I have already pointed out the social constructivist starting point, namely that what appears to be natural actions are often socially constructed. In other words, the actions occur within a larger context, and with a broader and different starting point than what is immediately visible. What may seem natural in an interaction is probably socially constructed. From the social constructivist perspective, this will also be culturally conditioned by how each individual is socialized into a culture, and how one reacts and understands oneself and others. The social construction will also affect the extent to which one utilizes and recognizes this knowledge and the signals sent to others.

Several middle managers in my research emphasize that in the development of PLCs, relational interaction with others proves both an opportunity and a challenge.

2.4 Distributed Leadership

Dialogic processes are fundamental in the practice of relational leadership, where an emphasis on distributed leadership contributes to cultivating an environment of collective engagement and collaboration within the organization. In such a context, where leadership is not just seen as a responsibility of individuals in hierarchical positions, but as a series of activities and interactions distributed across the entire organization, a more dynamic and participative leadership model arises. This perspective on leadership recognizes that the effectiveness and success of an organization cannot be attributed to isolated characteristics of individual leaders, but rather is a product of collaboration and collective effort (Einarsen & Skogstad, 2021; Paulsen & Jenssen, 2023).

Recent developments in leadership research have challenged traditional views that often glorified personal traits and characteristics of leaders as the key to organizational effectiveness. It has been found that while certain leadership styles can have destructive effects, such as laissez-faire leadership, there are no specific individual traits that universally contribute to increased effectiveness. On the contrary, effective leadership is situational, and

success comes from a leader's ability to adapt their approach to the unique needs of their organization and its members (Einarsen & Skogstad, 2021; Paulsen & Jenssen, 2023; Røvik, 2007).

Instead of focusing on the individual, the distributed leadership model promotes an understanding of leadership as a set of practices that are spread and integrated into the organization's structure and culture. This includes recognizing and valuing contributions from all levels of the organization and establishing processes that allow ideas and strategies to flourish from various sources. There is a growing recognition that through inclusive and dialogic processes, an organization can better utilize the full potential of its collective intellect and creativity to navigate complex and changing environments. As shown in my research, such an understanding of leadership is important in the development of PLCs, in part because it can lead to an increased feeling of shared responsibility for, and engagement in, school development.
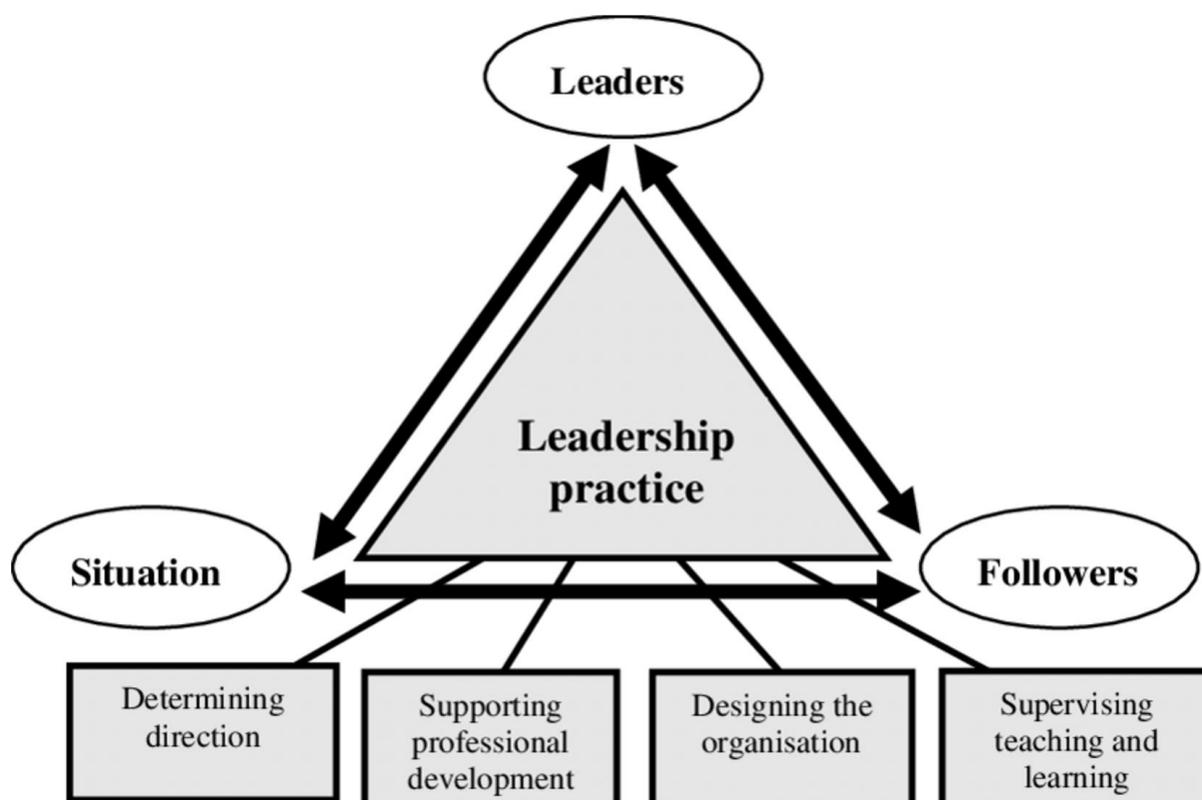

Figure 5: Fundamental Elements of Leadership Practice (Spillane, 2006)

James Spillane argues that the understanding of leadership practices is best achieved by considering it as distributed among leaders, staff, and their respective situations. He focuses on how leadership is exercised in schools, school systems, and communities through interactions between people in various situations (Spillane, 2006). In their research, John Diamond and James Spillane identified key aspects of the distributed leadership perspective. A crucial part of distributed leadership is that the leadership role is shared among multiple individuals, and this can manifest as collaboration, collective community, or coordinated action (Spillane, 2006; Paulsen, 2021; Paulsen & Jenssen, 2023). Another important element is the role of authority and legitimacy in distributed leadership practices (Spillane, 2006).

In school leadership, there is growing interest in the interplay between formal and informal leadership, as emphasized in several studies. This approach aims to shed light on how school leaders engage other staff in the school in educational leadership tasks such as planning, teaching, and assessment, while also exercising leadership through their positional power. Helen Marks and Susan M. Printy explain that shared pedagogical leadership means active collaboration between the school leader and teachers on curriculum, teaching, and assessment. They argue that school leaders should actively seek the ideas, insights, and expertise of teachers in these areas and apply this knowledge in decisions about school improvement. This practice was observed in a study of 24 successful schools in the USA, where these schools also stood out as strong learning organizations (Marks & Printy, 2003). The researchers argued that both position-based transformational leadership and more informal, engaging pedagogical leadership contributed to increasing teachers' commitment and willingness to contribute extra for the school's, colleagues', and students' best interests. Furthermore, this approach helped reduce the personal burdens for school leaders in their leadership role, as school leaders who share leadership responsibilities with others are less prone to burnout compared to those who try to tackle the challenges and complexities of leadership on their own (Marks & Printy, 2003).

Paulsen advocates for such a holistic approach to school leadership (Paulsen, 2021). But he emphasizes the importance of using leadership teams in distributed leadership practices in schools (Paulsen, 2021; Paulsen & Jenssen, 2023). He points to four key elements in developing distributed leadership practices in schools, namely: involvement of teachers through distributed leadership; strengthening middle managers' leadership from the middle

line of the school's organization; the school's leadership group as a learning integration unit; school leaders' leadership collegium in the municipality and county (Paulsen, 2021). Paulsen's argument for strengthening middle managers' leadership from the middle line will be relevant in my analysis of research findings in part five of this thesis.

The concept of distributed leadership stems from the idea that the organizational characteristics of schools, with the inherent complexity in teaching and student learning, are best managed by distributing decision-making authority between both formal leaders and the so-called 'non-leaders' or informal leaders (Paulsen, 2021; Paulsen & Jenssen, 2023). This is often referred to as the 'leader plus argument' (Paulsen, 2021). With this understanding of school leadership, school leaders should facilitate the teaching staff's participation in decision-making processes, work together with the teachers as partners, and thereby develop leadership capacity beyond those with formal leadership roles (Paulsen, 2021). This is particularly important for the large group of team leaders, coordinators, and other teachers who take on extra functions for the school beyond their teaching duties. It is essential to strengthen their capacity and competence to engage in decision-making processes and thus take responsibility in practical leadership. Empirical studies have shown that the ability to exercise student-centered leadership is actually possessed by multiple leaders in various roles, through mutual dependence and commitment via mutual adaptation (Spillane et al., 2001). When school leaders involve teachers in various decision-making processes and workshops on pedagogical and organizational topics, their sense of empowerment also increased as an expression of trust in practical school development (Paulsen & Jenssen, 2023).

Several international studies have also shown that distributed leadership, through an engaging practice from formal leaders, is not only normatively preferred for its democratic approach but is also a systematic characteristic of consistently high-performing schools. In a longitudinal study, Ronald H. Heck and Phillip Halllinger found a direct effect of distributed leadership practices on the school's learning capacity and an indirect effect on students' growth and progress in academic subjects (Brandmo, 2022). But despite the warm and collegial rhetoric surrounding the concept of distributed leadership, Leithwood and colleagues note that distributing and involving teachers in leadership activities is not a way to reduce the workload for school leaders. On the contrary, distributed leadership increases the need for coordination of those performing leadership functions, developing others' capacities to master

these tasks, and providing constructive feedback on their efforts (Brandmo, 2022; Leithwood et al., 2020). As my research will show, these elements of distributed leadership are important to the way middle managers work to develop PLCs at their respective schools.

2.4.1 Criticism of Distributed Leadership

The perspective of distributed leadership offers a framework for understanding how leadership is distributed, but it does not extend to providing a theory of how to act based on what one discovers. Distributed leadership is descriptive rather than normative; it provides no guidelines for what is desirable or undesirable leadership. The leadership concept itself can appear vague and abstract, defined as "something" that arises in the interaction between people and their situations, and often leadership activities can be difficult to distinguish from other actions that take place in an organization. Additionally, the implementation of distributed leadership practices can challenge a school leader's power base and lead to uncertainties around tasks and responsibilities between leaders and teachers (Paulsen, 2021; Paulsen & Jenssen, 2023). Paulsen argues that distributed leadership does not necessarily reduce the workload for the school leaders; rather, it requires a high degree of coordination and interaction, as well as a clear distribution of responsibilities with specific areas of responsibility (Paulsen & Jenssen, 2023). The middle managers interviewed in my research find distributing leadership practices a balancing act between including others but also having the final say and responsibility.

Leadership groups, especially in larger schools, can become very fragmented. On the other hand, some schools achieve a more unified practical leadership of school development by delegating and involving many actors, as well as actively using leadership and planning groups as integrating communities to create coherence and shared sense-making within the school's organization.

Spillane points out that distributed leadership is not always unequivocally positive or negative. The effectiveness depends on the context it is distributed in and the purpose of the distribution. Thus, distributed leadership is a framework for analyzing leadership practice, looking at how leadership activity is shaped through interaction between leader, follower, and their situations (Spillane, 2006). This distribution of leadership can be observed through

collaboration, community actions, and how coordinated these activities are. The distribution unfolds in dialogic processes and is therefore relational.

Developing a shared understanding, or sense-making, is a critical aspect of middle managers' work in promoting PLCs in the school context. Sense-making is a dynamic concept that involves all members of a community as active participants in shaping and redefining their understanding of their collective work. This relational view of knowledge development recognizes that learning and leadership are interactive processes that create a shared direction and understanding through dialogue and interaction (Abrahamsen, 2022; Paulsen, 2021; Paulsen & Jenssen, 2023).

In contrast to a transactional perspective, which sees knowledge as fixed and transferable from person to person, sense-making promotes a more interactive and mutual process. It transcends the idea that, for example, a school leader's understanding a topic is something that can only be handed over to teachers. Instead, it suggests that all staff are engaged in a dialogue that shapes their collective understanding and practice.
In the work of developing PLCs, it is therefore crucial for middle managers to be aware of and knowledgeable about the various dimensions that contribute to sense-making (Aas, 2022a; Abrahamsen, 2022; Paulsen & Jensen, 2023).

2.5 Summary

By adopting the perspective that social realities and subjective perceptions of these are constructed, opportunities arise to question and explore these phenomena. The primary focus of my research is to explore and understanding the opportunities and challenges that middle managers experience in the development of PLCs. To get a full and thorough understanding of these, one also needs to explore and reflect on the social constructions behind these opportunities and challenges. I have particularly focused on the dynamics that arise in interactions between people, and how middle managers use relational competence in interaction with others to drive and strengthen the development of PLCs. Interactions capture the moments' events and reflect the experiences individuals bring into situations.

The leadership activity is seen as a result of the interaction between the leader and the employee in the specific situation. Leadership activity is thus not an isolated action performed by an individual but a dynamic process that arises in the interplay of these elements. I have pointed out that all parts involved contribute to shaping the leadership activity, including both the people and the situation they find themselves in.

The situation itself is a product of societal constructions, shaped by people who may not be directly involved, such as overarching curricula, legislation, and guidelines that define how the school should be organized and what views on students and people are prevailing. All these elements are integrated into the school's professional community and are also influenced by a local culture that dictates how things are done and understood. Much of this knowledge is often implicit and unspoken, yet still plays a role in leadership activities. The challenge arises when different individuals' perceptions can diverge. Here, clarification, negotiation, and positioning are required, and a process filled with power plays and interests must lead to a common agreement on the understanding of tasks and goals. School leaders have the responsibility to lead this process in the school organization. The study shows that school leaders are shaped by these interactions and the way they work in the professional community. It also reveals that school leaders do not always know how best to carry out these processes, but must themselves be in a continuous process to find the most appropriate way forward.

3 Method

In the further work with the empirical material, the construction of understanding and meaning in social interactions between people is important. Based on a social constructivist perspective, understanding and meaning is created in the meeting between researcher and participant. There is a mutual influence between people, and the empirical material explored arises through this reciprocity.

3.1 Methodology

As previously mentioned, the research methodology in this study is based on a social constructivist viewpoint. This perspective considers knowledge as something that is created through interaction and interpretation. Social constructivism challenges the established by constantly seeking deeper understanding and underlying causes. Qualitative interviews have been chosen as the method for this research because they allow in-depth exploration. As a researcher, for example, I can ask for additional examples from the informant. The knowledge that emerges in the interview is a result of the interaction between us. Language functions as an essential tool for social interaction, dialogue, and reflection. I investigate how the middle managers participating in this research project interpret and describe opportunities and challenges related to the development of PLCs. Language shapes and is shaped by these interactions (Postholm & Jacobsen, 2018).

3.2 Conversation as Research Method - The Qualitative Research Interview

Quantitative methods are fundamentally based on conveying information about reality through numbers. Social phenomena are converted into numerical values that are analyzed statistically. The most typical way to quantify social phenomena and human behavior is through questionnaires with fixed response options (Postholm & Jacobsen, 2018). On the other hand, qualitative methods can capture reality through words or language. Descriptions of reality are presented in text, either as direct transcriptions of statements or through the researcher's own observations. It would be very difficult to quantify the opportunities and challenges middle managers experience in the development of PLCs, and therefore I have chosen a qualitative method and interview.

Qualitative methods are often found in a constructivist paradigm. Reality is seen as something created or constructed by the researcher and the participants of the study. Reality is shaped by the people in the given situation. The key to understanding qualitative research is the idea that meaning is socially constructed by individuals in their lifeworld, and this construction and understanding of reality are in constant change and development. Qualitative researchers focus on understanding these interpretations at a specific point in time in a specific context. The researchers' goal is to understand and highlight the meaning people have constructed in relation to their lifeworld and experiences. This is done by focusing on the participants' perspective and the interaction with the researcher's perspective (Brinkmann & Tanggaard, 2022; Postholm & Jacobsen, 2018).

Even though I have chosen a qualitative approach, it can also be mentioned that this method also has its opponents. For example, a positivist approach builds on the idea that there is a reality 'out there': To capture this reality, accurate descriptions are essential. Collecting empirical data in the form of numbers allows phenomena to be studied thoroughly and with great precision. This can be done by analyzing existing statistics, or we can quantify phenomena through various types of tests or questionnaires. Furthermore, statistical methods can assist us in handling large amounts of information, which increases the possibilities for aggregating knowledge. Since numbers are not open to interpretations in the same way as other data, this also contributes to making the knowledge more transferable and generalizable (Postholm & Jacobsen, 2018).

Many researchers within a constructivist approach would argue that quantitative data cannot measure the complex reality people live in realistically, and certainly not their understanding of the world. To achieve a deeper understanding of social phenomena, we should understand how people interpret social reality. We only achieve this by observing them - what they do and say - and letting them express themselves in their own words. Fieldwork (observation) and open interviews have been highlighted as ideal methods. Through such open approaches, one gains insight into how people themselves construct reality, and one uncovers the variations and nuances that exist in different interpretations (Brinkmann, & Tanggaard, 2022; Postholm & Jacobsen, 2018).

May Britt Postholm and Dag Ingvar Jacobsen argue that there is little conflict between numbers and words (Postholm & Jacobsen, 2018). There are different ways to collect

information about reality, whether we consider it constructed or real. Information encoded into numbers is called quantitative data, while information in the form of words is called qualitative data. A pragmatic approach is based on the idea that both numbers and words are equally important and useful in social science research, but that there are different strengths and weaknesses associated with both the qualitative and the quantitative (Brinkmann & Tanggaard, 2022; Postholm & Jacobsen, 2018)

There are certain aspects of social life that can be reasonably measured and described with numbers. This is particularly evident in studies of human behavior where the frequency of specific actions is counted, such as student absenteeism, frequency of teacher meetings, or the number of times a teacher addresses a student in a lesson. Also, objective measures like classroom size, the number of students per class, or teaching hours allocated to a subject are quantitative data that are relevant in research on social structures (Brinkmann & Tanggaard, 2022; Kvale & Brinkmann, 2015; Postholm & Jacobsen, 2018).

But when it comes to expressing human relationships and attitudes, one should be cautious about reducing these to just numbers. In social science, numbers do not have an inherent value as in mathematics. We can therefore distinguish between quantitative and qualitative numbers. Quantitative numbers have an independent meaning, such as age or weight. A question about age is answered with a number that is meaningful in itself (Brinkmann & Tanggaard, 2022; Kvale & Brinkmann, 2015; Postholm & Jacobsen, 2018).

Qualitative numbers, on the other hand, function as symbols that represent deeper meanings. For example, "1" on a survey may indicate agreement with a statement, but the number itself makes no sense without context. It is a simplification, a categorization of often complex opinions (Brinkmann & Tanggaard, 2022; Kvale & Brinkmann, 2015; Postholm & Jacobsen, 2018).

Today, we see a trend where the quantification of social phenomena becomes more prominent. Movies, restaurants, and wines are ranked with numbers that provide a condensed overview, but which do not provide detailed information. A 'dice roll three' may suggest the quality of a film, but it does not provide a deeper understanding as a full review would. Both quantitative and qualitative data have their advantages and disadvantages and provide valuable information, but of different nature and depth (Brinkmann & Tanggaard, 2022; Kvale & Brinkmann, 2015; Postholm & Jacobsen, 2018).

Quantitative studies can be criticized for creating an appearance of objectivity. This may be true in some cases, but the problem lies not in the use of numbers. No methods can provide anything other than human interpretations of the world or descriptions of their actions. Neither qualitative nor quantitative data can deliver definitive and objective answers. In other words, sometimes words provide a richer picture of reality than numbers, and other times it's the opposite. The choice between words and numbers should be guided by the research question, rather than by principled views on ontology or epistemology (Brinkmann & Tanggaard, 2022; Kvale & Brinkmann, 2015; Postholm & Jacobsen, 2018).

The interview method thus provides insight into thoughts and feelings. The interview can contribute to a rich and comprehensive picture of how individuals perceive their own situation and what perspectives they have on the topic they discuss. This makes the interview a good method for grasping the relational experiences of middle managers and the underlying thoughts and theories behind the decisions they make, and the opportunities and obstacles they face in the development of PLCs (Brinkmann & Tanggaard, 2022; Kvale & Brinkmann, 2015).

The interview itself is a relational act, an active exchange between people, where the outcome can be influenced by several factors such as question formulation, the relationship between the participants, and variables such as gender, social status, and age. It is important to acknowledge that interviews do not provide unfiltered answers, but the dialogue between the interviewer and the interviewee dictates what insight is gained. In a social constructivist framework, the study subject cannot be separated from the researcher; both parties in the interview contribute to knowledge construction (Kvale & Brinkmann, 2015).

3.2.1 Semi-structured interview

The choice of semi-structured interviews allows me to ask specific questions to delve deeper into the topics of interest. At the same time, the method opens up for the middle managers to share their own thoughts and reflections that extend beyond the pre-formulated questions. The goal is to understand the middle manager's perspectives on challenges and opportunities related to the development of PLCs. I wanted to formulate some key topics while letting the informants express their thoughts and ideas. Knowledge is shaped in the meeting between the

researcher's and informants' perspectives, which can lead to spontaneous questions and discussions that are not planned in advance. Through a mutual willingness to create meaning, there is a continuous analysis that can give rise to new questions or new narratives from the informant (Postholm & Jackobsen, 2018).

A thorough acquaintance with the subject beforehand ensures that I can conduct a more insightful interview than if I had been less informed. This means that I can ask relevant and insightful questions that shed light on the topic from various angles. With a semi-structured interview, I can pursue the stories that are shared while also asking questions that can potentially pull the discussion in new directions. To achieve this, I must know the topic well, prepare my own reflections in advance, and be listening and present in the interview moment (Kvale & Brinkmann, 2015; Postholm & Jackobsen, 2018).

The semi-structured interview, also known as the half-structured interview, aims to understand the perspectives of the participants (Kvale & Brinkmann, 2015). This interview format creates knowledge through the interaction between the researcher's and the interviewee's viewpoints. The researcher prepares themes and some questions in advance, but the order and application of these are flexible. Questions are posed where they naturally fit into the conversation, and the researcher is open to participants introducing new topics that were not anticipated. This interactive format allows the researcher to ask new questions that arise during the interview, based on the participants' responses. In a semi-structured interview, there is a continuous analysis, where the researcher constantly assesses the information that emerges to understand and interpret the participants' actions and thoughts. This form of interview is particularly common in case studies, ethnographic studies, phenomenological studies, and narrative studies, where the goal is to delve deeper into participants' experiences and opinions (Kvale & Brinkmann, 2015; Postholm & Jacobsen, 2018).

Observation is often considered a fundamental way to gather data in qualitative research where observations are conducted in natural situations (Kvale & Brinkmann, 2015; Postholm & Jacobsen, 2018). The researcher observes both human activity and the physical environment in which it occurs, which differs from laboratory-based or controlled experimental research. The combination of observation and interview as data collection strategies in qualitative research allows the construction of an intersubjective understanding

between researcher and participants. Observations and interviews can provide contextual information to each other and function as complementary strategies in studies, for example, in ethnographic studies and case studies (Kvale & Brinkmann, 2015; Postholm & Jacobsen, 2018). In my research, it would be very difficult to practically conduct observations of how middle managers perform the development and change of PLCs, and what opportunities and challenges they encounter in this process. Therefore, I have not included this.

With all this in mind, I use interviews to investigate how middle managers talk about their opportunities and challenges in the development of PLCs. There can be factors such as the relationship to colleagues, to the principal, and how other contextual aspects provide opportunities and challenges. I do not get direct information about the middle managers' leadership activities; how they think and act in given situations. But I capture the thoughts and reflections that the middle manager shares in the conversation with me as the researcher. This provides insight into the leadership practice and makes it possible to say something about how middle managers work to develop PLCs at their schools, and challenges and opportunities related to this.

3.3 Assessment of Interview Guide, Preparation and Conduct of Interview

3.3.1 Assessment of Interview Guide

The interview guide was designed with five questions. I will now go through the questions and reflections around the design of the interview guide.

Karen Seashore Louis and colleagues identify key components in PLCs, as shown in figure 1 (Kruse 1994; Louis, 2015). This table of key components in PLCs is the basis for the structure of the interview. By structuring the interviews in this way, we get a systematic overview of the various opportunities and challenges that middle managers face at the different 'levels' in the development of PLCs. Leveling in this way can, in some ways, be artificial, and there is overlap between levels. However, structuring my interview around this table will still provide a very good insight into different aspects of PLCs, and will contribute to giving me rich information about the middle manager's work with PLCs at the different schools, and the challenges and opportunities related to this.

The table creates a basis for a systematic and clear structure of the interview. Her table allows for starting the interview with relatively concrete and simple questions that are easy for the interviewee to talk about. Gradually, the interview is built up with more complex questions that require more reflexivity from the interviewee's side. Structuring interviews with relatively simple questions at the beginning, which are easy for the interviewee to answer, can be a good way to structure interviews (Brinkmann & Tanggaard, 2012; Kvale & Brinkmann, 2015). Below are reflections on how these questions contribute to gathering information about the opportunities and challenges middle managers face in the development of PLCs.

How do you work with de-privatizing practice at your school? What is your role as a middle manager in this? What opportunities and challenges do you experience in this work in your role as a middle manager?	This is a specific and straightforward question for the interviewee to talk about, and it can be a good way to start an interview (Brinkmann & Tanggaard, 2012). Here, the starting point is how the school (via middle managers and/or other leaders) works and facilitates so that staff can observe each other's practice and provide feedback on it. This could involve teachers observing each other in the classroom. This is PLCs at a superficial level.
How do you work with reflective dialogue? What opportunities and challenges do you experience in this work in your role as a middle manager?	This question is based on how the middle manager works to change attitudes and create psychological safety that can provide space for teachers and other staff to open up to each other and dare to receive input and thoughts on their own and others' teaching practices.
How do you work on developing a culture of collaboration? What opportunities and challenges do you experience in this effort in your role as a middle manager?	Here I ask how the middle managers facilitate teachers and other professionals working together to develop existing teaching practices, as well as creating new perspectives on learning and teaching, based on shared ideas.
How do you work on developing a collective focus on, and understanding of, student learning? What opportunities and challenges do you experience in this work in your role as a middle manager?	Here I ask about how they work to develop a collective understanding of how students learn and how they work for this (collective) understanding to concretely manifest itself in practical actions.
How do you work with shared norms and values related to PLCs? What do you experience as opportunities and challenges in this work in your role as a middle manager?	This question delves into what is referred to as cultural change at a deeper level, also described as underlying assumptions (Schein & Schein, 2017; Blindheim, et al., 2021). Here, the goal is not merely changes in what is said and done on the surface but rather cultural changes at a deeper level. Thus, the questions move from asking about how things are done 'on the surface' to how work with PLCs involves collectively shaping shared norms and values at a deeper level. The questions transition from relatively concrete and 'simple' ones at the beginning to gradually requiring more reflection from the interviewee's side. Allowing the interviewee to 'warm up' before asking demanding questions can be wise (Kvale & Brinkmann, 2015; Postholm & Jacobsen, 2018).

Reflections around the questions. I sent out information about the five different key components of PLCs in the interview guide in advance of the interview. This enabled the respondents to better understand and answer the questions during the interview.

Active listening must be emphasized as much as asking good questions. Therefore, I tried to be conscious of my own body language throughout the interviews. Interviewers should use active listening and be attentive to opportunities to ask follow-up questions that can deepen the understanding of the participant's perspectives. This includes observing non-verbal signals and being sensitive to topics that may require further exploration (Kvale & Brinkmann, 2015). No test interviews were conducted, as I have previously conducted similar interviews myself.

3.3.2 Preparation for the Interview

I sent out the interview guide in advance. This allowed the interviewees to read through the questions and think about their responses. The social context of the interview can influence the outcome of the interview study. I wanted to conduct the interviews in person, as physical interviews have several ramifications (Kvale & Brinkmann, 2015).

First and foremost, physical interviews allow the researcher to observe and interpret non-verbal signals such as body language, facial expressions, and gesturing. The depth of understanding these signals offer is often lost in digital formats. Physical presence can also facilitate a better connection between interviewer and interviewee. The shared physical space can create a more comfortable and trusting atmosphere, which is conducive to open and honest communication (Kvale & Brinkmann, 2015).

Furthermore, contextual insights through being present in the interviewee's environment provide the interviewer with contextual clues that can inform understanding. This may include environmental factors, social dynamics, and other nuances that would not be visible through a digital medium. Physical interviews can also help ensure that both parties are more engaged and less prone to distractions common in digital environments, such as email alerts or connectivity issues. Personal interactions can be more fluid and allow for spontaneous follow-up questions and clarifications, enabling a richer and more adaptable conversation. Personal meetings are also not subject to technical issues such as poor internet connection or software problems, which can interrupt the flow of a digital conversation (Kvale & Brinkmann, 2015).

Personal interviews can also contribute to commitment and respect for the interviewee and the research process, which can be ethically significant. Personal interactions can be more fluid and allow for spontaneous follow-up questions and clarifications, enabling a richer and more adaptable conversation. Face-to-face interviews tend to produce more detailed and nuanced data, as interviewers can dig deeper based on the immediate responses and reactions they observe (Brinkmann & Tanggaard, 2012; Kvale & Brinkmann, 2015).

Although there are various practical advantages of digital methods, the qualitative richness of personal interactions is difficult to replicate in digital formats. It is important to consider these advantages in light of the research objectives and the practical considerations involved in choosing an interview method (Brinkmann & Tanggaard, 2012, 2022; Kvale & Brinkmann, 2015).

3.3.3 During the Interviews

All interviews were conducted in person. The times were coordinated to fit the interviewees' schedules, and each session was allotted one hour. The interviewees were already known to the researcher as they worked as middle managers in the same county municipality. This meant there was less need to spend time establishing contact and trust or creating a certain atmosphere. Instead, it was possible to quickly confirm that informed consent for audio recording was in place, that all necessary questions were addressed in advance, and that conditions were conducive for the interviews.

During the interviews, the questions served more as a guiding thread for the interview. Some of the middle managers interviewed stuck more directly to the questions, while others talked more also beyond the questions. To keep to the schedule, I allocated a maximum of twelve minutes to each question. I asked additional questions if any of the middle managers made statements or claims that I needed clarification on, or which I thought could be interesting to explore further.

To stay aligned with the overall research question, I asked the following question several times to guide the interview in the right direction: "And what do you think about your own role in this context?" During the interview, I could steer the conversation by clarifying my intention and giving direction to the questions (Brinkmann and Tanggaard, 2022). Examples

of such directive questions are "I am interested in you and the role you have in the development of PLCs in your role as a middle manager base on what you just said" and "in what ways do you work towards the development of PLCs at your workplace with regards to what you just mentioned".

Asking for concrete examples when something is mentioned can contribute to obtaining deeper and more detailed explanations that eliminate the need for assumptions in the subsequent analysis, which also simplifies the work with the analysis (Brinkmann & Tanggaard, 2022; Kvale & Brinkmann, 2015). I tried to integrate this to varying degrees. Questions asking for examples and further elaboration were not part of the interview guide from the start, but I included them spontaneously when there was a need to clarify and illustrate points. This was to improve my own understanding with practical examples. I also asked direct questions to confirm my interpretation of what the interviewees expressed (Brinkmann & Tanggaard, 2022). Examples of such questions are "can you tell more about what you mean by external parties" and "what do you mean by capacity in this context". Such interpretive questions help to inform and adjust one's own interpretation so that it is as accurate as possible (Brinkmann & Tanggaard, 2022).

3.4 The Role of the Researcher

From the perspective that knowledge is constructed in interaction and dialogue with others, it is important to discuss the researcher's role in the data foundation (interviews). The values and norms I hold as a human being influence what I observe and study, and one must therefore be conscious of this (NESH, 2021).

I work myself as a middle manager and have my own understanding of that role. As a middle manager, I therefore have tacit and explicit knowledge about the profession, and I know that others in similar roles also have it (Paulsen, 2021; Paulsen & Jenssen, 2023). There might be much that is not said but perhaps lies there 'implied'. Even if this is not included in the data foundation, it is something that is present in consciousness. It is important to clarify that the people being interviewed are also different from myself, and they have a context and tacit knowledge that is different from my own.

As already mentioned, I therefore actively used clarifying questions in the interview process precisely to make the data foundation as accurate as possible. I also kept a reflection log both before and after the interview. Before the interview, I wrote notes on how my day, and perhaps my week, had been so far. Whether I am rested, tired, stressed, and similar. Such states of being can to some extent color the interview itself (Brinkmann & Tanggaard, 2020; NESH, 2021; Thagaard, 2018). After the interview, I tried to write a more 'objective' log about what had happened that day. Were there details, body language, or similar that I noticed. Since audio recordings were made, body language would not be apparent in the transcription.

In my role as a researcher, I acknowledge that I influence the data I collect. My goal has been to delve deeper than the superficial narratives, the well-rehearsed stories individuals often use to present themselves in conversations with others, which they tend to repeat. I consider myself to be an observant listener who picks up what is, and is not, communicated. But I am also aware that my own feelings, my relationship to the role of middle manager, and my impressions during and after the interview, color the information I receive. Therefore, it is essential to consider and present the research work from a meta-perspective and integrate this into the analysis to ensure openness about how it may affect the results (Kvale & Brinkmann, 2015).

The questions asked during the interviews are influenced by my own understanding and knowledge of the subject, which in turn affects both the way I ask questions to the interviewee and how I interpret the answers given (Kvale & Brinkmann, 2015; Postholm & Jacobsen, 2018). In the further work, which involves transcription and analysis, the understanding becomes more aligned with the interviewee's perspectives and insights. This approach has enriched my own understanding, which is valuable to carry forward both within and outside the research study.

3.5 Units of study

Interviews were conducted with four middle managers at various upper secondary schools in the same county municipality. The upper secondary schools are large enough that the middle manager often has a different role than at smaller schools. At smaller schools, there is often more contact between the principal and teachers; it can often be that the principal is the only

one in the school's leadership, whereas the larger the schools get, the more contact between teacher and middle manager occurs. Then, the principal becomes the leader of the 'leadership team', while direct contact with teachers and other employees often occurs through middle managers (Abrahamsen, 2022; Paulsen, 2021; Paulsen & Jenssen, 2023). The size of the sample was considered sufficient for a qualitative study and can provide a basis for identifying similarities and connections that exist despite differences in the size of the schools and the leaders' experience.

A brief presentation of the middle managers Aksel, Beate, Cecilie, and David. Aksel is a middle manager at a school with 800 students and a leadership team of six. He has over 15 years of experience in leadership roles within the education sector. Beate has recently taken over as a middle manager at a school with 500 students and a leadership team of four. Previously, she was in a teaching position at the same school. Cecilie is a middle manager at a larger school with 1200 students and a leadership team of seven. She has ten years of experience as a leader. David is a middle manager at a division of a secondary school with 700 students and six in management. He has worked as a leader at the same school for 14 months.

3.6 Transcription

An interview study involves a series of translations. Questions from the research must be transformed into questions suitable for the interview, and conversations from the interview must be transferred from oral to written format as transcriptions. Then, the transcribed material must be analyzed and reworked into a research product of value (Brinkmann & Tanggaard 2022; Kvale & Brinkmann, 2022).

The purpose of qualitative analysis methods is primarily to organize the collected data material from a study to make it understandable. The type of analysis, where the material is structured and made report-ready, is called descriptive analysis (Postholm & Jacobsen, 2018). This phase in the analysis work forms the basis for further research.

The data material in qualitative studies is often extensive, and during the analysis process, the goal is to get an overview of the material in order to be able to present it in writing to others. This does not mean that the analysis starts only when all the material is transcribed. It starts

already when the researcher is in the field or in the interview and collecting material. During observation, the researcher tries to understand what is happening and notes both events and immediate interpretations. In an interview, it is important that the researcher is engaged and makes immediate analyses in order to be able to ask follow-up questions. A qualitative researcher should always have a notebook or dictaphone available to jot down thoughts and preliminary analyses (Postholm & Jacobsen, 2015). Taking notes was something I actively did during and after the interviews.

Working with the transcription was very insightful, but time-consuming. The experience of the interviews was different when I went through them again. Here it was also useful to have my reflection notes. When I listened to the conversations again, I noticed that there were places where the flow to some extent stopped, but then one party continued.

In working with the transcription, I became aware of how important body language is; how much is shared face to face, and how people read each other through body language. Such information does not come across in audio recordings or in transcription. Even though the focus is on what is said, not how it is said, body language can help shape the perception of what is said.

It is essential to transcribe verbatim to avoid misunderstandings of both sentences and context. Nevertheless, one faces choices such as including small "ee" and "eh" sounds which were sometimes so faint that it was difficult to determine if they represented an actual sound or just a breathing pause.

In the process of transferring sound to text, a significant amount of information is thus lost. The audio recording does not capture body language, and it is also difficult to accurately reproduce tonal nuances and linguistic nuances such as irony (Brinkmann & Tanggaard, 2012).

When I went through the interviews, several reflections arose that were insightful. One of these was the realization that missing details in a conversation can lead to misunderstandings. Sometimes the answers in the transcriptions were not direct responses to the questions asked, but rather what the respondent assumed they were being asked about. In addition, there were aspects in the answers that should have been explored further, but which may have been lost in communication. As a middle manager, in an environment of daily meetings and

conversations, it is a valuable insight that listening requires attention and sensitivity. Listening skills are skills that must be developed and refined over time (Kvale & Brinkmann, 2015).

3.7 Analysis

The analytical work involves elements of coding, classification, reflection, and ongoing descriptions. It is crucial to contemplate the interpretation of the data (Kvale & Brinkmann, 2015). I have written reflections before and after the interviews, as well as during the actual analysis of the data. Documenting thoughts throughout the process has been advantageous to contribute to an understanding of the progress of the analysis, and to ensure that important layers of meaning in the data material are not overlooked. As previously mentioned, constructivism utilizes an interpretive approach. By interpreting the data, with a special focus on the opportunities and challenges middle managers encounter in the development of PLCs, and from an understanding of leadership as something that occurs in social interactions, I improve my insight into the challenges and opportunities middle managers face in their work with developing PLCs, their perception of their role, and how these opportunities, challenges and perceptions are conveyed to, and shaped in dialogue with me as a researcher.

It is central to reflect on how data is understood and the concepts that are best suited for describing it (Postholm & Jacobsen, 2018). Writing down reflections during the analysis work has been useful to provide good input on how the analysis process has progressed, and it has helped me in not overlooking valuable meaning content in the data material.

By interpreting data, I can achieve a deeper understanding of both what middle managers think about their role and opportunities in relation to the development of PLCs, but also how this meaning is created in conversation with me as a researcher. The process of analyzing data actually started when I conducted the interviews. As previously mentioned, I worked during the interviews to try to understand what the interviewees meant by what they said, or to get them to talk about what I wanted to investigate further. As I have also shown, reflections begin while I transcribe the material. When I then start to read through the entire data material, I coded the material along the way. From the coding of the material, I created categories, under which I collected relevant quotes. After this, I went back to the theory, to

create a good coherence between theory, research question, and data material. From this, I changed the categories, based on both the data material (inductive) and theory (deductive). In this way, I anchor the categories both empirically and theoretically (Postholm & Jacobsen, 2018). An important reflection in this is that I interpret the material when I place statements under an overarching category. It is my understanding that underlies how data is categorized, and it is not further investigated whether this corresponds to what the interviewees themselves meant. At the same time, this is where the work starts to become exciting. By going deep into the material, and taking the time to read it many times, view the statements in different categories or through different theoretical perspectives, one gradually gets a more thorough grip on it (Postholm & Jacobsen, 2018). Another reflection in the work of categorizing the data material is that some of the material is assessed as not relevant, and some of it may belong to several categories at once. The focus is directed towards parts of the material, and important information may have been overlooked. It has therefore been useful to go back and work with the entire material several times, to nuance the analysis (Postholm & Jacobsen, 2018).

3.8 Methodological Discussion – Validity and Reliability

In research, validity refers to the degree to which the researcher can actually support the conclusions drawn from the collected data. Reliability refers to the trustworthiness of the research, and concerns the extent to which we can rely on the findings produced by the research project. Questions like "Can we trust what people say in interviews?" or "Has the researcher captured all important information?" are central (Postholm & Jacobsen, 2018).

In qualitative research, quality means that the research must be credible. Trustworthiness, validity, and transferability stand as core concepts in assessing the research's credibility and indicate the project's quality level (Kvale & Brinkmann, 2018). Trustworthiness concerns the sustainability and credibility of the research. This is essential for quality work, but not alone sufficient to ensure high quality. The research must also have validity, which in this study encompasses both internal and external validity. Below, I will explain how quality is maintained in this study.

It is important to reflect on several factors such as what limitations exist in one's own research, and how the way the research was conducted might have influenced the final results.

3.8.1 Reliability

In traditional research, often based on positivist thinking, reliability was viewed as the ability to replicate research results in subsequent studies (Kvale & Brinkmann, 2015). The 'test-retest' method, performing the same study again to check if the results are consistent, was considered a reliability test. However, this method assumes an objective reality that does not change, which is rarely the case in behavioral and social science. The variability of phenomena means that a study is not necessarily unreliable if it cannot be replicated; conditions may have changed (Postholm & Jacobsen, 2018).

Replicating qualitative studies is problematic, partly because researchers' personal and theoretical approaches influence the research, and partly because human behavior and societal conditions continuously evolve. The question is whether a study becomes more credible if it can be replicated, and whether this indicates a single truth. In qualitative research, findings reflect contextual knowledge and the researcher's subjectivity, which must be acknowledged as part of the context. Therefore, replication has little significance for the study's reliability (Postholm & Jacobsen, 2018). The researcher must reflect on their own influence and make the research process transparent for others' reflection. It is essential that the researcher is aware of their subjectivity, which can be achieved by keeping a logbook of one's role. This can contribute to a meta-perspective on the researcher's role and how observations and interview content are interpreted. The researcher can unconsciously collect data that confirms their own assumptions. Logging before and after data collection helps the researcher identify and reflect on their own preconceived notions. The final point emphasizes that reliability and credibility are the results of a dialogue between the researcher and others interested in the research results (Kvale & Brinkmann, 2015; Postholm & Jacobsen, 2018).

In any discussion of reliability, the researcher must be able to describe for themselves and others, and critically reflect on various factors. In social and behavioral science research, the relationship between researcher and research participant is central, whether it involves observation, interviews, or questionnaires. People's behavior adapts in these relationships. In interviews, for example, participants may tailor their responses based on what they think the interviewer wants to hear. Factors such as the interviewer's gender, age, clothing, and voice can influence this, and different participants may interpret these aspects differently. It is

impossible to control for all these conditions. Therefore, the researcher should be open about their experience of the relationship to allow the reader to reflect on the research's credibility (Kvale & Brinkmann, 2015; Postholm & Jacobsen, 2018).

Furthermore, the relationship between the research question and the research participant is important. For questions seeking to understand specific phenomena, the participants' competence in the area is central. This is particularly relevant when the research is aimed at a phenomenon and less at the understanding of individuals. Thus, the competence of the participants becomes an important aspect to consider. In addition, different research questions can be perceived differently by those being studied. For example, questions perceived as threatening or critical evaluations may lead participants to withhold information, give selective or strategic information, and in some cases provide false information. The researcher must therefore reflect on how the questions may affect participants' responses (Postholm & Jacobsen, 2018).

Research always occurs within a specific context, which is limited in time and space. It is important for the researcher to describe this context and reflect on how it may have influenced the results. The researcher's role is to describe the context so that the reader can reflect on its potential impact on data collection. In research, the data collected always represents a snapshot of reality, and participation is voluntary. Therefore, one must critically reflect on which sources were not accessed, and why, to understand what information might have been omitted (Postholm & Jacobsen, 2018).

When it comes to recording important data in research, we face the limitation that we can only analyze what we manage to record. Human memory is not sufficient to store large amounts of detailed information, so researchers rely on good notes, audio or video recordings. However, these aids are not always available, for example in classrooms, where teachers may refuse filming or audio recording. Researchers must then rely on notes, a method that requires training and often the development of a personal coding language for efficient notation. The main problem with relying only on notes is that they represent a highly filtered form of information, where only a few details are recorded. This can make it difficult for others to verify whether the researcher's conclusions match the raw data collected. Notes can also be subjective, as the researcher may tend to record data that confirms their own worldview. This

reliability issue is particularly prominent in qualitative research methods (Kvale & Brinkmann, 2015).

I am specific and clear in how I have proceeded in the study, which research method has been used, and how I have worked with the analysis. This also contributes to making the research transparent, allowing outsiders to evaluate the research process step by step. I also have relatively good competence in the area, which creates greater understanding of what is being studied. I have kept a logbook that can help me identify and reflect on my own preconceived notions. I was sensitive to body language because I wanted to reduce the chance that my questions were perceived as threatening or critical evaluations.

3.8.2 Validity

Validity can be further divided into two types: internal and external. Internal validity focuses on whether the conclusions we draw are valid for what or who we have studied. This involves both causal validity, i.e., the ability to infer cause and effect, and conceptual validity, which concerns the extent to which we actually measure what we claim to measure. External validity or transferability addresses the extent to which results from a study can be transferred to other contexts than what was actually studied. For example, if we have studied one school, to what extent can the results then be applied to other schools? (Postholm & Jacobsen, 2018).

All these concepts - internal and external validity, as well as reliability - constitute criteria for a study's overall credibility. If the researcher takes these aspects into account and shows how the research process is conducted to ensure the study's quality, the overall credibility of the study can be improved (Postholm & Jacobsen, 2018).

The study is generalizable because the context descriptions allow the reader to understand to what extent this can be transferred to their own context and practice. The theory functions as a tool that describes and explains what has been studied, and can thus both support and deepen findings in similar studies and contribute new insights. The connection to the theory ensures that the research results are placed in a broader context and thus made more general. Finally, it should be valid for those who have been studied. Participants should be able to recognize themselves and see a connection between the concepts that I use to describe the

significance of middle managers in the development of PLCs, and what they themselves have informed about (Kvale & Brinkmann, 2015).

3.9 Ethical Perspectives

The overarching ethical principle in research is that the researcher should show responsibility first and foremost towards the research participants, then towards the study, and finally towards themselves (NESH, 2021). The ethical domain can be divided into internal and external considerations. Internal considerations are related to rules and norms where it is ethically important to be factual, honest, and open, which pertains to how the research is conducted and reported. External considerations are related to the researcher's relationship with participants and the role of science in society. Dishonesty violates ethical principles both internally and externally and can involve producing false data and reports, as well as promoting political or economic interests.

In my study, I have worked to ensure that the research is factual, honest, and open. At the first contact with the middle managers, requests for participation in the research were sent out, along with information about the study. These four received consent forms, and it was clarified before the interview started that all questions were resolved, and they consented to audio recording. Thus, the requirement for free, informed consent was fulfilled before the interview started (NESH, 2021).

When it comes to the study, responsibility lies in the handling of data. Upholding ethics involves carefully handling information both during data collection and when presenting the material to others. This also contributes to ensuring quality in the work. I must have a perspective that does not elevate itself above or is not know-it-all. The approach must be respectful, and I must be clear that the understanding is not complete (Kvale & Brinkmann, 2015; NESH, 2021).

3.9.1 Handling of Personal Information

In this study, I received data that can be linked to the individuals participating. There are specific ethical guidelines I must follow according to The National Committees for Research

Ethics in Norway (NESH, 2021, 2022). As a researcher, I have tried to work from a fundamental respect for human dignity, which upholds participants' autonomy, integrity, freedom, and co-determination (NESH, 2021). The project was reportable to the Norwegian Centre for Research Data (NSD) as I gained access to personal information and stored these on a computer.

There are three basic principles for ethically justifiable research practice. Firstly, participants' informed consent must be in place. This comes from sufficient information about the project so that participants can assess whether they want to participate, giving participants a certain control over their own participation in the project. The ethical responsibility and principle will thus last throughout the study, and participants must be informed along the way, and consent possibly renewed (Creswell & Poth, 2018).

The second basic principle of ethically justifiable research practice is the researcher's requirement for confidentiality. This involves that personal information should be de-identified, and the publication of research material should be anonymized (NESH, 2021). Here, it was important that data storage was done in a secure manner. It has been important to be particularly tidy in where I store data, labeling of data, and how I handle data in all processes and procedures throughout the study. Since I have studied middle managers in secondary schools, it is possible that some who know the involved may recognize statements, arguments, and results that I refer to. Here I have tried to anonymize as much as possible without the characteristic features disappearing.

The third basic principle of ethically justifiable research practice is related to the consequences the research may have for the participants. It is my responsibility that the research does not result in the participants being subjected to serious physical or other unreasonable burdens as a result of the research (Kvale & Brinkmann, 2015; NESH, 2021). To uphold this, I, as a researcher, commit to protecting the participants' identity throughout the research process. Through all the methodological choices I make in the process, I have considered the ethical consequences it can have for the participants.

3.10 Summary

This chapter has explored the research process itself. I account for the methodological approach that shaped the choice of research methods and the treatment of data. An evaluation of how the project was conducted is also undertaken, including considerations that were made before, during, and after research activities. This contributes to making the research understandable and transparent. The goal is that readers can easily follow the progress of the research and understand how the results were achieved, which contributes to ensuring the quality of the research.

4 Main Findings from Research

In this section, I present the collected data, divided into three primary categories. These categories are created from the central research question: 'What opportunities and challenges do middle managers experience in the development of PLCs' based on interviews with four middle managers. The interviews were structured based on the table developed by Louis (Louis, 2015).

When I first began this research project, I was planning on organizing my findings into categories corresponding to the different levels of PLCs, as presented in chapter one. However, after my interviews were conducted, I realized this would be an inappropriate way of structuring, as there is too much overlap between the different levels of PLCs. I would therefore force myself into an artificial categorization structure that would not be a good nor fruitful way of presenting my findings in this research.

Instead, I chose a method of categorizing them that I considered to be the most appropriate for bringing out my research findings, and which to the greatest extent possible makes my study a contributor to the field of research.

The first category deals with the opportunities a middle manager experiences in the development of PLCs. This first category contains statements and information from middle managers where they talk about opportunities that they encounter in the development of PLCs at their schools. They discuss approaches, organization, and engagement in this development process. This covers both direct responses to questions, as well as information that is revealed through their thoughts and actions related to leadership and development of PLCs.

Within this category, I have further divided the findings based on which methods, tools, opportunities the middle managers use and encounter. I start by examining frameworks and organization in the work of developing PLCs, then I focus on relationships and meaning-making and how the development process plays within these frameworks.

The second category deals with the challenges a middle manager experiences in the development of PLCs. Like the first category, this is further subdivided into two categories.

In the third category I look at findings related to specific changes that can be made to make middle managers even more potent in the development of PLCs.

4.2 Middle manager's opportunities in the Development of PLCs

In the first category, I present statements from middle managers that give insight into their opportunities to promote, structure, and drive the development of PLCs. This category is divided into two. First, I have looked at how middle managers use their formal authority to control formal frameworks and action spaces to develop PLCs. Then I will look at how middle managers work relationally to develop PLCs.

4.2.1 Middle managers' Use of Structural Frameworks to Drive Development of PLCs.

Middle managers talk about how much time is allocated to joint time during the week, and how it is managed. For all the middle managers, joint time is central to the development of PLCs. Aksel says that he manages the joint meetings, and the structure is tight:

> ... and when there are joint meetings, it's me who's in charge. ... And then it's set up, right, what will happen at these joint meetings. It's really a very tight structure on it. Yes, it is. If the structure is too loose, I've at least discovered that then it quickly becomes all talk and no action.

For Aksel, an effective use of joint time is an important tool for developing PLCs at the school:

> In our school, we see joint time as an invaluable resource for developing our professional learning community. ... It's in these collective moments that we share experiences, challenge each other's thinking, and learn together. This time allows us to reflect on our teaching practice, explore new pedagogical methods, and strengthen our collective competence. By collaborating and supporting each other in joint time, we can better meet our students' needs and continuously improve the quality of teaching at our school.

Cecilie says that a key component in the process of further developing PLCs has been to transform the structure and culture of joint meetings. She also talks about the importance of

having a firm and clear structure for the meetings. Cecilie explains: "We have worked over several years to implement a standard template for all teacher meetings. This has resulted in a more inclusive and dynamic meeting culture, where roles like meeting leader and note-taker rotate among teachers". In her work with LK20 from the Directorate of Education, Cecilie has particularly focused on deep learning. She reflects: "We chose approaches and strategies based on our own convictions about what works best for our organization and our professional community, which led to a more targeted and relevant competence development plan". Her leadership team, which consists of seven members, meets weekly to review, discuss, evaluate, and develop the plan for PLCs at the school. Cecilie describes this: "We meet once a week, and then we discuss and review what will happen next week. This is based on an annual wheel that I have created, which is both flexible and dynamic, but also contains certain fixed elements".

Cecilie has experienced this process as very positive and says that teachers now ask if the agenda is not set:

> What's happening now, what are we going to discuss, what's on the agenda? And I see now that if we have been a bit behind, they are on the ball immediately. This tells me that this has been implemented. The way we have our meeting structure.

Cecilie describes the professional community as something that belongs to everyone: "Yes, and I think that about the professional community, it's not just a group of individuals; it grows and develops through collective effort and commitment. …What is it we are doing at the school". She is a clear leader of this community and further says that she has an important role in facilitating the work that the teachers will do.

> My role is to create the tasks that we are going to work on. That is, I formulate what we are going to work on. I formulate the issues, which they get out, which we are going to sit and discuss. And then I also formulate what we should end up with.

In this way, she leads the school development and the professional learning community. The teachers themselves are the ones who should work with the issues, reflections, and come to a conclusion, a product, or increased competence: "And it is me who has the responsibility to find the good, the good places or what can help us to increase our competence", Cecilie says, explaining how she plans the development work and how she involves the leadership team in

this process. She carries out and has the thread in the work with curriculum renewal among the teachers.

She emphasizes the importance of feedback from the leadership group and teachers on the annual wheel to ensure its relevance. Cecilie points out, "It is important that both the leadership group and the teachers give feedback on the annual wheel and its content, so that it continues to be relevant and adapted to the school's needs". She states that "collaboration and continuous development" are key to success.

Beate, the middle manager at another school, emphasizes the importance of the morning meetings she has introduced as an important structural step to develop PLCs at her school. She explains the significance of these meetings: "We have half an hour three days a week which we call morning meeting... I lead those meetings. And it is, it's sort of…this is happening now, so there is a fixed agenda". She explains that it is not just a communication channel, but also a platform for building PLCs. Beate emphasizes the fixed agenda and how it contributes to the school's professional community: "It's a time for us to come together, discuss upcoming events, and make sure everyone is on the same page. It also provides an opportunity for teachers to share concerns or ideas". Through these meetings, Beate wants to promote a culture of openness and collaboration, and ensure everyone is always up-to-date. She emphasizes the importance of physical interaction in these meetings: "There is something special about meeting face to face. It creates a commitment and trust". Beate says that by giving teachers a set time and structure to share and reflect, she contributes to creating a more integrated and dynamic learning environment. She believes that these meetings underline the importance of leadership's role in promoting PLCs, and that her structure contributes to creating a professional culture with reflection and openness. She says: "Through these morning meetings, we not only strengthen our shared understanding but also build a culture where all voices are heard and valued. ...At our school, we think this is the foundation for a strong and well-functioning professional learning community".

The joint time is similarly organized at both Beate, Aksel, and Cecilie's schools. They have a 'long day', where there is a fixed time after teaching. They alternate between using this time to give administrative information and to use the time for development work, either jointly or in teams.

David clearly expresses his dissatisfaction with how he and the rest of his leadership team have established the framework for development work within his organization. He expresses a feeling that insufficient time is allocated for this purpose, noting "I think we work too little with it (development of PLCs). I think there is too little time allocated, and it gets interrupted and used for, for a lot of other things than, than direct school development". David shows frustration that the effort for school development is sidetracked by other tasks. Further, he expresses a desire to increase the time spent on school development regularly, indicating an acknowledgment of the need for more dedicated effort in this area: "Unfortunately, it gets planned a bit from hand to mouth. Yes, I must be honest and say that". Unlike how Beate, Aksel, and Cecilie organize their joint time, David only has two joint meetings a week. At his school, teachers' fixed working time is distributed differently.

David explains that "development work requires time...but in a busy school day, this is a rare luxury". He wants to get better at utilizing the time he has available. For him, it is important and challenging to use the time in a way that inspires and creates enthusiasm: "It is important but difficult to achieve something that inspires and motivates". David talks a lot about how he navigates in meetings with his colleagues to lead them: "...I try to be clear in a smart way. Not by forcing it through, but rather by gently and kindly pushing it through". It is clear that David is working to find the balance between school development and meaning-making for the individual, and that this happens in interaction with the employees.

Middle managers do not feel alone in the leadership work and work to develop PLCs at the school. Aksel says, among other things, that "we in the leadership team move together towards common goals. It helps to create a stronger and more cohesive school culture". Beate says that being a part of a leadership team helps with "making more balanced and well-considered decisions". For her, it's a place "to air thoughts and ideas" before she takes them further. She also says that being several in the management means they can "collaborate and share experiences and strategies".

For her, it is also important to meet middle managers and other leaders from other schools in the county municipality. She says, "having a network of leaders to turn to gives a sense of community and strength. ...It's like saying, we're all in this together, and together we can do great things".

Aksel says he experiences a sense of community in the work of developing PLCs: "I don't feel like I'm alone in driving this work. There is a sense of collaboration and community here", he says. He expresses a desire to have even more support in the work of school development, for example, more support from the school owner, which is the county municipality: "One thing I would really appreciate in this work is a more visible school owner. Someone who can contribute resources to our school", explains Aksel. At the same time, David talks about well-functioning network groups, across different schools in the county municipality, which he participates in. For him, they have been a great help: "In the county municipality, we have some really good network groups. This is something I definitely would like more of", he expresses. He values the supportive network for the positive influence it has on his own development, both personal and professional.

As the middle managers work in the same county municipality, they are all involved in various forms of networks. Beate says about this: "Participating in networks with other school leaders gives me invaluable perspectives and new ideas that I can bring back to my own school. For me, it's a place for the exchange of knowledge, experiences, and strategies".

Although there is much talk about PLCs and dedicated development time, the middle managers emphasize the importance of PLCs that extend beyond organized meetings. David highlights that everyone, no matter where they are or what tasks they perform, must contribute to the community and school development. He places great emphasis on recognizing and utilizing employees' skills and knowledge for the benefit of the community. David expresses this by saying:

> My role is largely about facilitating, inspiring, and motivating, as well as planning when time allows. However, I am clear that I cannot lead this alone. We must collaborate and take advantage of each other's competencies. We must work together to create the best possible development for each other.

So far, I have looked at how middle managers use external factors as design factors to drive the development of professional learning communities (PLCs). These factors, which are carefully planned and implemented, lay the foundation for substantial work in school development. From my findings, I see that middle managers play a key role in setting these frameworks. Together with others in the leadership group, they determine how time should be allocated to school development, with a special focus on organizing the time, establishing a

clear agenda, creating a structured plan, and delegating tasks to other employees. Furthermore, middle managers want support from the school owner and the school owner can facilitate common meeting arenas across schools.

4.2.2 Middle managers' Use of Relational Processes to Drive Development of PLCs.

Beate emphasizes the importance of establishing a culture of openness and trust among the teachers. She clearly expresses this principle: "To create an environment where teachers feel safe enough to share and explore, we must first build a foundation of trust". This involves regular meetings where teachers are encouraged to share their experiences and challenges without fear of judgment. Beate stresses that "'it's not just about sharing what works, but also what doesn't. This is how we learn and grow together". Beate mentions that she herself has actively worked to be genuinely open to other thoughts and ideas, to see things from different angles. She has caught herself being a bit prejudiced at times but has worked on this in recent years. She says: "I've worked to be a bit less assertive in recent years...to be open to other thoughts and ideas…to see things from different perspectives. There have been times when I have...hmm...caught myself being a bit prejudiced, but I've worked on this". She adds that this openness is not just a personal journey but also part of the school's leadership culture: "This has also been worked on by the school management at leadership meetings. Admitting and confronting our own prejudiced attitudes is an important part of creating an environment where all voices are heard and valued". For Beate, openness and inclusion are central to a good PLC. She adds that working with shared norms and values is challenging, but all the more important to have an open, exploratory, and challenging culture. Beate points out: "It takes effort to build a culture where everyone feels included and valued".

Aksel's strategy of promoting individual recognition is central in his relational approach. He says that "it is essential to acknowledge and value each teacher's unique contribution to our community". This philosophy manifests in his practice through regular one-on-one conversations with teachers, where he encourages them to share their experiences, challenges, and successes. Aksel emphasizes the importance of this, "by actively listening and providing constructive feedback, we strengthen each individual teacher's sense of worth and belonging".

Another critical component in Aksel's approach is the development and maintenance of shared objectives within the PLC. He points out, "for a professional learning community to be effective, all members must have a shared understanding and commitment to our collective goals". To achieve this, Aksel focuses on inclusive decision-making processes where all teachers are encouraged to contribute to the formulation of these goals. He believes that this creates stronger ownership and commitment among the teachers.

Conflict management also plays a vital role in Aksel's work. He sees conflicts as opportunities for growth and learning within the PLC. "Conflicts, when handled in a respectful and constructive manner, can lead to deeper understanding and stronger relationships," he explains. Aksel practices this by facilitating open discussions and encouraging a culture where disagreements can be expressed and explored in a safe and supportive manner. Continuous professional development is another key point for Aksel, who further says, "our goal is not just to teach but also to learn continuously from each other".

Conflict management is also a critical element in Beate's relational processes. Beate explains: "Disagreements and conflicts are inevitable, but how we handle them can either strengthen or weaken our community". She emphasizes the importance of open dialogue and respectful discussions. She says, "it's about listening to each other and trying to understand different perspectives, even when we disagree".

Cecilie, like Aksel, also places great emphasis on aspects such as individual recognition, shared objectives, constructive conflict management, and continuous professional development. She clearly expresses this principle: "It's crucial to acknowledge each teacher's unique contribution to our community". This principle is expressed through regular personal conversations with teachers, where she encourages them to share their experiences, challenges, and successes. Cecilie emphasizes the importance of this: "I want these conversations to contribute to being heard… and to give mutual respect and trust".

Cecilie stresses the importance of shared goals: "I work to ensure we have a shared understanding and commitment to our collective goals". To achieve this, Cecilie focuses on inclusive decision-making processes where all teachers are encouraged to shape these goals. She believes this creates stronger ownership and commitment among the teachers: "Everyone can contribute to our goals…then they become more meaningful".

Continuous professional development is another key point for Cecilie. She strongly believes that learning is an everlasting process for both students and teachers. "Our goal is not just to teach but also to learn continuously from each other", she says. This includes participation in professional development programs, workshops, and sharing best practices in PLCs, which Cecilie actively promotes and participates in. Beate shares Cecilie's view that collective professional development takes time, saying, "Learning is a continuous process…both for the student and for us".

Cecilie is also clear that she does not have all the answers, and that meaning must be created together: "I don't believe in a leadership style where I have all the answers. Now you must listen, and you just have to accept that it will be like this…I don't believe in that". She wants to be a clear leader by having thoughts about how she wants to lead the processes, and she has thoughts about where the goal is, but the actual process of creating common meaning is done together. Cecilie further talks about the importance of everyone enjoying their work, and that this is something everyone contributes to. "There is a high degree of job satisfaction, and that is very important. And it's not just my merit. It's the whole team, everyone contributes". She says the job satisfaction is linked to there being a good atmosphere in the organization. "It's nice to be here", and that this is something substitutes and others who visit, give feedback on. This is an expression that there are good feelings associated with being an employee in the organization, and that this creates an atmosphere that others from outside experience when they are among the employees.

Like Aksel, David and Cecilie also emphasize the importance of effective conflict management. David believes conflicts can be an opportunity for growth and learning. "Conflicts, if handled in a respectful and good way, can lead to deeper understanding and stronger relationships. It has to be a constructive way", he explains. Cecilie says she tries to facilitate open discussions and encourage a culture where disagreements can be expressed and explored in a safe and supportive manner. At the same time, she knows this is difficult in practice: "Navigating conflicts is…challenging. I believe the key lies in understanding that conflicts can be an opportunity to…like…build bridges where walls previously stood".

Cecilie reflects on the effect of her relational approach: "Through recognizing each teacher's value, working towards common goals, handling conflicts constructively, and committing to continuous learning, we can together shape a learning community that is not only cooperative

and productive but also deeply supportive and adaptable". She adds, "it's these relationships that are the cornerstone of such work".

Similarly, Aksel shows great respect for his colleagues:

> This is an important reflection I have in relation to leading a department. Firstly, I am surrounded by people who are at least as intelligent as myself, wonderfully skilled and competent individuals. As a group, they are verbally strong, without stigmatizing them

With many years of experience as a middle manager, Aksel feels confident in his role. He has clear ideas about how he wants to work with PLCs. "I try to be an example of a behavior that I think also applies to their work. We must be clear that praise works. When someone does something well, everyone should acknowledge and rejoice that they are seen", explains Aksel. He talks about how he acknowledges and highlights all his employees throughout the year: "I strongly believe in highlighting the good examples".

He notes that some teachers stand out and are important supporters in the development work due to their great commitment and drive. "It's not random who is asked to be team leader. These are skilled teachers whom I perceive have authority among their colleagues. They are curious and willing to take extra responsibility to drive the school forward". In this way, Aksel leads the professional community and school development by actively highlighting and using employees who pull in the same direction.

Furthermore, Aksel talks about how he involves teachers in the development work by sending out small surveys for reflection: "From the responses, I extract the essence and signal how I think we should work with our projects going forward. In this way, I get the employees' involvement and use parts of their answers to lead the development work further", concludes Aksel.

Furthermore, the middle managers describe how they facilitate school development, by planning what the teachers should work on, in addition to time and organization as mentioned earlier. I perceive this facilitation as an interactive process with the teachers, where feedback from the teachers about whether it 'hits or misses' is important for Aksel, Beate, Cecilie, and David. It is a collaboration to create common meaning in school development. Through

dialogue and interaction, trial and further development, they collectively determine how this can make sense for the organization.

Aksel explains that he uses teachers who are skilled and engaged as important supporters by setting them as team leaders. David encounters challenges in engaging teachers in the school development process. He believes that part of the problem lies in the fact that many teachers have long experience and do not automatically adapt to new changes that are introduced, for example, through updates in the curriculum. He reflects on the situation:

> The most challenging for me is to lead a staff that has many years behind them in this school. They have seen various trends come and go, and often perceive new changes as a repetition of the old. I do not believe in pressuring these experienced teachers, as they have their own strong opinions. Therefore, I focus on listening and highlighting their previous positive experiences, while trying to point out the aspects of the new trends that are already working well for us. It is about being diplomatic and strategic, and carefully promoting changes.

David continues:

> Being too dominant in discussions can kill engagement and lock the conversation. My approach is to navigate carefully, while listening and promoting what I want to see more of. I give the teachers time to process the changes and subtly try to guide them towards what we need to improve.

He aims to create a balance between respecting the teachers' experience and leading them towards new development goals.

Aksel, for his part, focuses on the importance of individual recognition and support. He points out that "each teacher has unique strengths and areas for growth. By recognizing and supporting these individually, we contribute to a stronger community". Aksel's approach includes personal guidance and encouragement for teachers, so that they feel valued and part of a larger community. He emphasizes that by recognizing the individual's contribution "we strengthen the sense of ownership and engagement in PLCs".

Aksel emphasizes the importance of promoting positive feelings and ensures that this is clearly communicated and visible, to create an inviting atmosphere. He receives feedback

from his team confirming that he is a clear leader. Aksel reflects on these feedbacks, and he considers the balance between giving teachers room for participation and maintaining his leadership. The interaction between him and the employees works well, and Aksel feels secure in his leadership role. He is open to influence and input, especially regarding the content of the work, but still maintains his authority as a leader.

Similarly, Beate exhibits clarity in her leadership, especially when it comes to defining fixed structures and clear goals. She is open to suggestions and participation from the teachers on how to achieve these goals. However, Beate ensures that her role as a middle manager is respected, and that her authority is not challenged or questioned. Beate elaborates: "I want everyone to feel heard and included, but it is also important that the decisions ultimately lie with me as the leader. It creates a necessary structure and direction for the team".

All the middle managers place great emphasis on being present and available for their own staff. Beate says: "My goal is to be a leader who is accessible and trustworthy". She continues: "We must all be on the same page regarding what we want to achieve with our learning community. …It is important that these goals are not just imposed from above, but that they are developed in collaboration with the teachers". Beate further explains that this creates a sense of belonging and purpose among the teachers. Beate also mentions that development work is a continuous process. She says: "Learning is a continuous process, not just for the students, but also for us teachers".

Above, we have seen how the middle managers in this research project use their relational approach in the middle manager role to promote the development of PLCs. Through relational approaches, often targeted and conscious use of relational processes, the leaders aim to lay the foundation for a learning community that is not only effective, but also supportive and sustainable.

4.2.3. Middle managers' Challenges in Using Structural Frameworks to Develop PLCs.

Beate has several reflections related to the meeting culture: "Nothing is as meaningless as sitting in a meeting and not feeling that it is useful". Beate says that having good content in meetings is important to ensure that people are 'on' in the professional community. Therefore,

she strives to fill the meetings with good content, but it can be challenging to fill the meetings with content that promotes PLCs: "Creating meaningful meetings is not just an art, but also a necessity". Beate experiences that "the principal appreciates and feels that the job becomes easier when teachers are involved and engaged in what needs to be done". She further says, "at least I feel that it's really fun when, when you see that it works. I find that very fun".

Cecilie also talks about challenges in filling the collective time with the right content: "When it does not make sense... or is perceived as relevant, the teachers are not as engaged or participating". She further describes her colleagues: "And it is a huge resource when you have such a group, it is such a resource. Yes. So it is very much so". For Cecilie, it is a challenge to utilize colleagues as a resource in the community as much as possible. Thus, the collective competence becomes both an opportunity and a challenge.

Aksel points to time use as a challenge: "But the biggest hindrance is time. ...Between teaching, meetings, and administrative tasks, it is difficult to find enough room for development work". Aksel notes that time constraints affect not only the quantity but also the quality of interactions within the PLCs: "When we are pressed for time, the meetings often become a bit 'superficial'. We don't have enough time to really delve into things". Aksel also emphasizes that time pressure can affect teachers' engagement. "Many already feel a lot of pressure", he explains. "I think that too many meetings can lead to reluctance rather than enthusiasm". Aksel further says,

> ...a major challenge is that change in schools takes a long time. I have heard that change in schools can take up to 6 years. Much of this has to do with established patterns, such as the dynamics between teachers who have collaborated for a long time. It's related to textbooks, teaching methods, and places where teaching occurs.

At David's school, teachers have a shorter fixed teaching time every day, but in return, they have two days of joint meetings a week. Further, David says that many at his school have reduced positions, which makes it difficult to get everyone to meet at the same time. He explains that "development work requires time...but in a busy school day, this is a rare luxury". He goes on to say,

> at our school, teachers have little fixed teaching time every day. But we have two days a week set aside for joint meetings. But, many of our teachers are in reduced

positions, which makes it challenging to coordinate meetings so that everyone can participate simultaneously. ...We have thought that meetings two days a week can be a good idea…

Beate faces challenges in maintaining engagement in the development work: "It's hard to keep up the motivation and interest over time", she expresses. "And I notice that the enthusiasm is starting to wane. Some lose the spark, get a bit tired. I heard someone say:

Can't we just get new books now?' So that the new books cover the new knowledge requirements, and then we continue as before. Not many say it, but it happens that some mention it. So maintaining enthusiasm, that's a challenge. It really is.

Beate explains that the way she handles this challenge is by changing the work method a bit. The competence packages are put aside, and they work more concretely with the subject sections at the school. This has given new motivation to the teachers, as it is experienced as something new and concrete. They work on finding good teaching methods and creating setups in the subjects, based on the new curriculum.

As shown above, there are various structural challenges that middle managers face in the development of PLCs. Available time is highlighted as the biggest challenge, and it is also linked to another challenge; namely, filling the meetings with good content.

4.1.4. Middle managers' Challenges in Using Relational Processes to Develop PLCs

Beate explains that, although she places great emphasis on creating an open culture, she also finds it challenging: "To create an environment where teachers feel safe enough to share and explore, we first need to build… a foundation of trust". The challenge lies in finding time and resources to have regular meetings where teachers can share their experiences without fear of judgment. As previously mentioned, Beate has found her preconceived attitudes to be a challenge: "There have been times when I have… hmm… caught myself being a bit prejudiced, but I have worked on this".

Aksel, as also mentioned, uses individual recognition as a relational method to promote PLCs, but he also experiences challenges related to this: "It is essential to recognize each

teacher's unique contribution", he says, but adds the challenge of maintaining regular one-on-one conversations in a busy school day. He says, "it's about having enough time in an always busy school day".

Aksel points out that curricula and policy documents are often formulated in language that is difficult to access: "They express it in very bureaucratic pedagogical formulations which make it difficult to understand". He continues: "Well, my job is, at least I feel, to be very clear that it's not like everything we have done before is bad, many of the things we do fit very well into the curriculum renewal". This implies sharing an understanding that the curriculum renewal to a greater extent allows for some of the teaching and activities the school has already been involved in. This is about connecting with businesses, working on projects in the local community, and allowing for practical work and alternative ways of demonstrating competence, for example, through band methodology in music.

> ... I think it's an important task for me to assure teachers that what we are doing now, even though we have been doing it for 5 years, is completely in line with what we will continue with. And then I try to exemplify when I see things that I think are good examples of what happens when we dare...".

Aksel often highlights examples from the staff of what he wants to see more of. He also talks about how practical discussions about operation in the planning group can also become a reflection on how this fits into the curriculum:

> And then we connect the curriculum renewal here, right, and ask the question, does this take us in a direction in relation to the new curriculum? And then we get a reflection around that: 'Well, this is about varied teaching, it's about taking the student voice seriously, it's about being allowed to spend a whole day building a model. So, there's a certain degree of depth learning', right. So some of the things that are operation also become a reflection around the curriculum.

He seems confident in his understanding of what the curriculum renewal entails in practice. He has participated in a competence-raising initiative related to the curriculum renewal and says this has given him good input in relation to how he can drive the work with the

curriculum renewal at his own school. For him, there is both a relational challenge and an opportunity in assuring colleagues that existing practices often are a good starting point for further development. To him, the relational challenge is primarily about "saying things the right way" and having enough time to do so.

Cecilie links relational challenges to balancing between 'top-down' and 'bottom-up' leadership. She says: "We must all be on the same page regarding what we want to achieve. To really create such a feeling". Cecilie is clear that not everyone can always have it the way they wish or want, but that she still tries to recognize everyone's contributions.

As mentioned, Cecilie tries to facilitate open discussions and encourage a culture where disagreements can be expressed and explored in a safe and supportive manner. She experiences this both as an opportunity and as a challenge: "Navigating conflicts is...challenging. I think the key lies in understanding that conflicts can be an opportunity to...like...build bridges where walls previously stood". Thus, conflicts become both a relational opportunity and a challenge for her as a middle manager.

Cecilie reflects on her own leadership style, and whether she is clear enough as a leader, or whether she is too accommodating by involving the teachers too much:

> I feel that I involve the teachers to a great extent, that they feel they are heard, and sometimes I think that: 'Yes, maybe you are too nice, take detours and such.' But when I ask the teachers, they respond that they experience the management as clear

By including the teachers in the process, Cecilie experiences that the teachers are satisfied with the management. Teachers feel heard because she takes an extra round in the process or lets the teachers' voices be included further in the process. The teachers say that the management is clear, which is perceived positively by Cecilie. An example is the sending out of forms to the teachers. "I start with a simple survey... And it gives me a good picture of how the teachers think about this". Through such actions, Cecilie argues that everyone gets the opportunity to express their opinion and reflections around their own work. She explains that she often finds it challenging to "say the right things", and that as a leader people can "overanalyze" what she is saying.

Beate emphasizes how fun it is when collaboration works and when shared meaning creates engagement. This can be a positive way to shape the leader's role, by showing clear engagement for what 'hits'. It creates positive feelings for all parties and gives a sense of achievement and engagement when they feel that the work is meaningful. She says: "When we work together towards a common goal, and see that our collaboration bears fruit... that's when the magic happens. It is in these moments that we truly feel that our work is not only important but also rewarding". However, Beate also experiences challenges in balancing different needs and perspectives within the team. She acknowledges that not all meetings or initiatives always result in immediate success or agreement. "It can be difficult to find the right balance between different opinions and approaches. …But even in the more challenging moments, it's important to remember that all contributions are valuable for our joint development". Beate emphasizes that it is through these processes of trial and error that the team learns and grows together. "It's not always about getting it perfect from the start", says Beate. "The learning process of adaptability is what ultimately strengthens us as a school".

David sees conflict management as a relational method and a tool that can create stronger understanding and relationships. At the same time, it is also a challenge for him. He explains that navigating between different opinions and interests can be a complex and delicate task. David acknowledges that not all conflicts can be resolved to everyone's satisfaction, which he views as a challenge: "Finding a solution that everyone is happy with... it's not easy".

Above, we see that many of the relational opportunities also present challenges, whether it's creating a community where everyone's voice is valued and balancing this against making decisions and choosing a path, or in conflict management.

4.1.5. Changes That can Strengthen Middle managers' Scope for Action in the Development of PLCs:

So far, the research project has uncovered various challenges and opportunities middle managers have in the development of PLCs. Now, I will discuss some possible changes that could help middle managers strengthen their work with PLCs.

One of the primary challenges that middle managers like Beate, Cecilie, Aksel, and David experience is the limitations on time available for development work. To address this, schools might consider revising time scheduling and task prioritization. This could include allocating specific time periods exclusively for PLC activities, so that these are not interrupted by other tasks. Schools could also consider delegating some administrative tasks to support staff or specialized roles to free up more time for middle managers to focus on PLCs.

Furthermore, schools need to consider the quality of interaction and collaboration during PLC meetings. To improve this, it might be beneficial to introduce structured meeting formats that promote active participation, dialogue, and meaningful discussions. This could include the use of workshop-style meetings and rotating meeting leadership to ensure that all voices are heard and valued.

Schools must recognize and protect the relational aspects of school leadership and school development. This involves building a culture where teachers feel valued, supported, and engaged in the school development process. This can be achieved through regular individual recognition and support, as highlighted by Aksel. One-on-one conversations with teachers can strengthen their sense of worth and belonging.

Furthermore, middle managers should try to create open and inclusive decision-making processes, as well as recognizing and valuing the diversity of perspectives and experiences that each teacher brings to the community. Middle managers can work to develop common objectives in collaboration with the teaching staff, so that everyone feels ownership of the PLC process (Abrahamsen, 2022; Paulsen, 2021; Paulsen & Jenssen, 2023; Skrøvset, 2022). By promoting participation in professional development programs, workshops, and the sharing of best practices between school leaders, school owners can help middle managers develop their relation competence (Abrahamsen, 2022; Paulsen, 2021, 2022).

Conflict management is another critical component that must be addressed. Schools can provide training and development for middle managers to improve their conflict management skills, and to facilitate safe and supportive environments where conflicts can be constructively handled. This will help to strengthen relationships and understanding within the PLC (Hjertø, 2022).

Combining external networking and internal engagement is also important for effective leadership in an educational context. It provides a balanced approach where middle managers can benefit from external resources and insights while maintaining a strong, personal connection with those they lead daily. Individual schools can facilitate collaboration between leaders and teachers at different schools. Developing and strengthening such networks across schools can be a way to enhance PLCs at individual schools. These networks can themselves constitute PLC that spans across schools (Paulsen, 2021).

Leadership teams in schools represent a vital arena for experimentation, modeling, and development of desired behaviors and practices that can be spread throughout the entire school organization, and using the full potential of such teams can be a way to strengthen the middle managers overall potential and potency in the school, including PLC development.

These teams, consisting of principals, middle managers, and other key personnel, function as microcosms of the school, where new ideas can be tested, mistakes can be made and learned from, and successful methods can be modeled and adopted (Abrahamsen, 2022; Ballangrud, 2022; Paulsen, 2021; Paulsen & Jenssen, 2023).

In leadership teams, members can try out new strategies for teaching, management, and interaction in a safe and supportive environment. Making mistakes here is not seen as a defeat but as a valuable part of the learning process. This approach models a culture of learning and continuous improvement that can be transferred to the teaching staff and students (Hjertø, 2022; Paulsen, 2021; Paulsen & Jenssen, 2023).

The teams also function as laboratories for behavior modeling. Leaders can demonstrate desired behaviors, such as empathic communication, effective conflict management, and openness to change, which can later be reflected in the behavior of teachers and students. Through these actions, norms and values are gradually filtered out into the entire school culture (Hjertø, 2022; Paulsen, 2021; Paulsen & Jenssen, 2023).

Furthermore, leadership teams offer a platform for collective reflection and discussion about pedagogical and organizational decisions. This stimulates a shared understanding and commitment to the school's goals and direction. Sharing experiences, both successes and challenges, strengthens team spirit and creates a sense of community among the leaders (Aas, 2022a; Abrahamsen, 2022; Paulsen, 2021).

In addition, leadership teams can be catalysts for change. By modeling adaptive and flexible approaches to school management, they can set the tone for how the school as a whole responds to changes in the educational landscape. This includes responses to new pedagogical trends, technological advancements, and changes in the needs of the student population (Aas, 2022a; Abrahamsen, 2022; Hjertø, 2022; Paulsen, 2021; Paulsen & Jenssen, 2023).

Overall, leadership teams in schools serve as important venues for developing and strengthening a school culture characterized by innovation, collaboration, and a positive attitude towards learning and development. By promoting these values internally within the team, the leaders contribute to spreading an atmosphere of optimism, curiosity, and engagement throughout the entire school (Aas, 2022a; Hjertø, 2022; Paulsen, 2021; Paulsen & Jenssen, 2023).

As such, there are several changes that could make the middle manager even more potent in the development of PLCs. This includes revising time scheduling and task prioritization and specific time periods exclusively for PLC activities, and introducing neatly structured meeting formats that promote active participation, dialogue, and meaningful discussions. Moreover, school owners should facilitate participation in professional development programs and networks across schools that can help middle managers develop their relation competence and other aspects of their leadership, including sharing of best practice. Also, the leadership team serves as a vital place for sharing, testing and modelling behavior that is necessary to bring into the PLC development work. The leadership team can itself be model for how one wants the PLC at a school to be. As such, improving the way the leadership team functions can also aid the middle managers PLC work.

4.2 Summary of Research Findings

1. Through organized meetings and shared time, middle managers can structure the work with PLCs. Middle managers can use tight structures and clear agendas to ensure effective use of time and to promote productive discussions. This can contribute to the sharing of experiences, exploration of new pedagogical methods, and strengthening of collective competence. Having the opportunity to shape the structural frameworks is both an opportunity and a challenge, and it is a matter of finding the balance between maintaining structure and allowing flexibility.

Additionally, it requires continuous evaluation and adjustment to meet changing needs and priorities in the school environment.

2. Secondly, there is a challenge related to finding the right balance in the interaction with staff. They need to be listened to and feel that their voice is heard. At the same time, the middle manager must ensure that everyone is involved, and relate to the overarching goals of school development. Here, the middle manager's task is to work with the professional community, a community that is built through relationships and collaboration. The professional community should work together to find meaning – a collective sense-making, a process that the middle manager leads.

As a middle manager, one can promote a culture of trust and openness through personal conversations and inclusive decision-making processes. This can create opportunities for deeper engagement and personal growth among teachers. There are also challenges related to time use, time management, and balancing different needs and perspectives. Navigating these relational dynamics requires skill and attention from the leaders. At the same time, constructive conflict management and encouragement of continuous professional development can contribute to a more robust and adaptable learning environment. Here, middle managers encounter opportunities and challenges in the application of cultural and relational capital to promote psychological safety and professional development.

3. Thirdly, the middle managers report that it is challenging to facilitate development programs that hit the mark with teachers. This means that teachers must find it relevant and concrete enough to be tied to practice in the classroom, while also being relevant to the overarching goals for school development. It must be meaningful for both the teacher and the leader to spend time on.

4. Middle managers experience time constraints as a significant challenge in the development of PLCs. Between teaching, meetings, and administrative tasks, it becomes difficult to find sufficient time for dedicated development work, which can lead to superficial meetings and reduced teacher engagement. This is about having enough time, maintaining engagement over time, and good use of the time allocated for school development.

5. Middle managers value networking and collaboration with leaders from other schools. This provides opportunities to share experiences, strategies, and gain new perspectives that can

strengthen PLCs at their own school. Such networks offer support and resources that are crucial for school leaders' professional development and effectiveness.

6. The middle managers feel included in the management group at the school. This contributes to support and security in the work they do, and gives them someone to reflect with in order to develop in the leadership role.

4.3 Final Summary

Overall, these findings show that the success in the development of PLCs depends on the middle managers' ability to navigate between the various opportunities and challenges. Effective use of structured processes and strong relational leadership are key components. Middle managers must apply cultural and relational capital to promote psychological safety and professional development. Time management and balancing different leadership styles require continuous attention and adaptation.

5 Further Analysis and Discussion

5.1 The Important Role of Middle managers in PLC Development and Meaning-Making Work

In the presentation of the research findings and the initial analysis, I have reviewed how middle managers themselves respond to the issue. These findings can be characterized as surface phenomena (Postholm & Jacobsen, 2018). Now, I will take a deeper dive into my own findings and place them in the context of existing research in the field of middle management and the development of PLCs in schools.

Leadership practices are formed in the interaction between leaders, teachers, and the specific situation. It is important to recognize the interdependence between these elements. By looking at these factors, one can identify and address the challenges middle managers face.

A challenge lies in the process of creating shared meaning within PLCs. This involves finding the balance between overarching expectations and what makes sense in the local practice. New curricula require interpretation and adaptation to the school's unique context, which can be a time-consuming and complex process. Language plays a crucial role in creating this shared understanding. Each teacher has their understanding of the language based on their unique experiences both within and outside the professional community. Thus, language becomes an essential tool for explaining, reflecting, and creating a shared understanding. This process requires time and an open approach to knowledge development, motivated by a willingness to cooperate, trust, and a focus on relevant data (Paulsen, 2021; Paulsen & Jenssen, 2023).

For middle managers, it is crucial to understand and navigate these processes. They must balance between the overarching expectations and what makes sense locally, while managing challenges that arise in interaction and dialogue with colleagues. This balance is necessary to create a culture that is open to knowledge development and that promotes a practice that is both relevant and meaningful to all involved (Abrahamsen, 2022).

The middle manager must own their identity as a leader, a process that involves understanding oneself and responding to colleagues, meeting challenges, and managing a

hectic everyday life. This also involves building cultural capital that is crucial for how leadership is distributed, where the individual leader depends on the school management's ability to build trust and achieve integrity and authority.

The relationship between leader and colleague, and how this relationship is managed through positioning, negotiation, and trust-building, is also important. Middle managers report feelings of joy and energy when they experience mastery and meaning in their work, and have faith that they will be able to participate in the shaping and forming of PCLs in particular directions. This underscores the importance of their role in driving school development, and how the process towards the goal is managed.

The school's management has a central task in steering and facilitating development within the school's collective arena. This involves a continuous responsibility to develop both one's own and colleagues' practices, according to the Ministry of Education (2017). To effectively develop learning professional communities across the school, it is crucial that the leadership team focuses inward on the development of such communities within the leadership group itself. Using the leadership group to explore how learning and leadership occur in different contexts, and to assess various leadership configurations can contribute to internal reflections on the leadership group's exercise of leadership in the school (Abrahamsen, 2022; Paulsen & Jenssen, 2023).

The role of middle managers as a link in the leadership group and as a leader for the teachers is central. The ability to influence, provide support, and exercise control are all important aspects of the leadership work. It becomes important to reflect on what types of leadership work best in the specific school. When is it important to exercise control, and how should it be done? Should it be concentrated, individual-oriented leadership, or a form of atomistic or holistic execution?

The leadership group's presentation to the teachers, whether as individual leaders with delegated tasks or as a cohesive group representing the diversity, complexity, and culture of the various departments and levels at the school, is also important. A leadership group that evolves into a learning professional community by building a supportive culture for

collaboration and with a high degree of latitude for middle managers can serve as a model for the school's learning professional community.

Leadership, whether in the leadership group or of learning professional communities, is closely linked to various leadership configurations where different learning activities can be described through a holistic distributed perspective or as "collaborated distribution" (Abrahamsen, 2022). Leading learning professional communities is about building a supportive culture for collaborative learning and professional development (Aas & Vennebo, 2021), which means that roles as leaders and 'followers' will vary depending on who can contribute to the learning community (Diamond & Spillane, 2001).

In this space for action, the principal and middle managers can build a supportive culture for collaborative learning and contribute to professional development that benefits all. They can provide direction by modeling good practice and facilitating by creating structures and motivation for continuous improvement work in the teachers' professional groups (Abrahamsen, 2019). The middle managers in the school play a crucial role in this process.

At the same time, this raises the question of what could happen if middle managers develop too much autonomy and latitude related to their departments, especially in larger secondary schools. This could potentially reinforce the phenomenon of 'schools within schools' and reduce the opportunity for collective professional learning groups that can contribute to developing the whole school, whether it is small or large (Paulsen & Jenssen, 2023).

Further, I will take a deeper dive into three research findings: 1) middle managers' opportunities and challenges in the application of cultural and relational capital to promote psychological safety and professional development; 2) opportunities and challenges school leaders face when they are to strengthen PLCs by facilitating networks that allow for collaboration, exchange of experience, and knowledge sharing across schools; 3) opportunities and challenges related to structural changes that allow school leaders, particularly middle managers, more time to work on the development of PLCs.

5.2 Middle managers as Cultural Architects in the Development of Culture and Psychological Safety - at the Leadership and Organizational Levels - Which Promote the Development of PLCs.

The middle manager does not stand alone in the leadership work, and leadership is an activity influenced by many factors, including how well the leadership group functions. Psychological safety is a prerequisite for good leadership groups (Paulsen, 2021; Paulsen & Jenssen, 2023). A group climate based on mutual trust is crucial for effective leadership groups. A significant task for these leadership groups is to establish, maintain, and develop a climate of psychological safety, both within the leadership group itself and throughout the organization. This climate involves a shared experience that the group represents a risk-free zone, where it is safe to bring up all types of problems and challenges without fear of psychological sanctions such as negative criticism or isolation. Psychological safety in leadership groups is necessary to address mistakes, quality deficiencies, and necessary improvements in the school environment, the student learning environment, or undesirable behavior among staff. Building psychological safety within the leadership group, and spreading it throughout the organization, is crucial for good development work (Paulsen, 2021).

With strong psychological safety, people are more open to new ideas and willing to try them out in practice. It means creating an atmosphere where it is accepted to experiment, fail, and learn from mistakes. This is a powerful source of innovation, especially in schools where pedagogical experiments and small-scale trials are key methods for change work. These are all key components of PLCs. Middle managers must therefore actively work to create psychological safety in interactions with others around them (Paulsen, 2021; Paulsen & Jenssen, 2023).

In situations approaching whistleblowing, where critical issues concerning the school's operations are raised, psychological safety in the leadership group is crucial. A leadership group with such a climate is better equipped to handle such critical cases constructively. This type of openness in the leadership group contributes to better decision-making quality, as none of the members need to withhold information or fear social sanctions (Paulsen, 2021).

As mentioned in the research findings in chapter four, several of the middle managers reported actively working towards creating such a climate. Cecilie emphasized the importance of this with the quote: "I want these conversations to contribute to being heard... and to provide mutual respect and trust".

In schools where there is low psychological safety, the result can be false conformity, where members become too cautious and avoid honest discussions during meetings and in dialogue with others. This can result in real discussions being taken outside the meeting rooms, which can undermine the effectiveness of meetings and conversations and ultimately harm the school's development and operations. This applies both within the leadership group and in the school as a whole (Paulsen, 2021; Paulsen & Jenssen, 2023).

Leaders are shaped by and positioned to shape culture through relational work with mutual influence. In the education sector, collaboration across disciplines and professional traditions is essential to provide optimal learning and develop good school environments (Abrahamsen, 2022; Hjertø, 2022; Paulsen & Jenssen, 2023).

Being confident, yet able to explore and develop one's own identity as a leader is therefore important. This is a process that involves understanding oneself and responding to colleagues, meeting challenges, and managing a hectic everyday life. This also involves building cultural capital that is crucial for how leadership is distributed, and the middle manager must build trust and achieve integrity and authority in this work (Abrahamsen, 2022; Paulsen, 2021).

Middle managers must systematically evaluate their behavior to become more aware of the signals they send and how these are interpreted in different aspects of leadership. This can be achieved through increased self-awareness of how one's own behavior is perceived by others. A deeper understanding of the symbolic aspects of leadership can give school leaders at different levels an expanded repertoire to develop their leadership. This can lead to better conditions for handling the complexity of schools and driving organizational and cultural development as transformation entails. This is also advantageous in extreme situations like crisis management, which school leaders may have to handle. Not least, this is relevant when the organization undergoes extensive changes, such as the Curriculum Renewal represents (Fullan, 2011; Hillestad, 2022; Hjertø, 2022; Paulsen, 2021; Paulsen & Jenssen, 2023).

At the same time, it is important to emphasize that cultural change processes are very time-consuming, complex, and unpredictable. Leadership is one of several important factors that play a role in these processes. School leaders have both room for maneuver and real opportunities to influence, but also clear limitations, when it comes to steering school cultures in a clearly defined and desired direction (Blindheim et al., 2021; Paulsen & Jenssen, 2023).

Middle managers, therefore, have both opportunities and challenges in helping to build and cultivate a culture characterized by openness and trust, and woven into a climate of psychological safety. Such a culture, in turn, will be an important cornerstone in PLCs.

5.3 Middle manager as Facilitator and Participant in Learning Networks as a Factor in PLC Development

In my research, it emerged that networks between middle managers and other leaders at the municipal and county levels were perceived as constructive. For instance, Beate expressed this by saying: "Having a network of leaders to turn to gives a sense of community and strength. …It's like saying, we are all in this together, and together we can accomplish great things".

Research indicates that cross-school networks that contribute to a professional community for school leaders can be a resource that ensures professional development (Abrahamsen, 2022; Paulsen, 2022a). There is a demonstrated need for leadership communities under the auspices of a school ownership system in a primary municipality or county, arenas that function as the school owner's leadership forum or leadership group for the affiliated school leaders (Paulsen, 2022b). In a study of the organizational traits of Swedish schools that respectively succeeded or failed regarding goal achievement, a common characteristic was that in successful schools, school leaders participated in learning communities together with their school owner (Jarl et al., 2021; Paulsen, 2022b).

Local and regional school systems are by nature relatively open institutions with few or no incentives to 'protect' their own expertise, making them a favorable context for inter-

organizational learning between schools located near each other. However, effective organizational learning across collaborating schools does not occur automatically, even if the intentions are good. One factor that appears crucial is absorptive capacity (Paulsen, 2022a, 2022b).

An organization's absorptive capacity denotes its ability to identify and value new knowledge in its surroundings, assimilate it into its own organization, integrate new knowledge with existing practices and procedures, and thus utilize what has been learned from others for the organization's core activities (Abrahamsen, 2022; Paulsen, 2022a, 2022b). Within a school owner system in a municipality or county, corresponding with school districts in other national systems, absorptive capacity is crucial for school leaders and teachers to learn from each other: by building new knowledge through interaction and also collective sense-making in the work of interpreting performance data.

The processes that take place in the meeting between the school owner and school leaders reinforce the school leader's role as educational leaders. It is the unique opportunity of the school owner to design a good infrastructure for learning and thus organize knowledge work optimally. At the same time, it is up to the individual middle manager to utilize this space to strengthen their own practice as a leader. Professional communities across schools enhance the professional communities at each individual school (Abrahamsen, 2022; Paulsen, 2022a, 2022b).

Middle managers must not only participate themselves but also work to facilitate networks among teachers from different schools. Such facilitation aligns with the conclusions and recommendations from the Expert Group for School Contributions (Lillejord et al., 2021). A recognized study on the implementation of curriculum reforms in large and complex high schools in the USA, conducted by researcher Susan M. Printy from Michigan, demonstrated the importance of the practice community (Printy, 2008). The practice communities took place both internally among close colleagues and externally with colleagues from other schools, with the latter contributing new perspectives and knowledge influx. Both forms of learning were essential for maintaining organizational learning in the school. Through participation in practice communities, teachers could establish common norms and mutual accountability (Paulsen, 2022a, 2022b).

In Finland, a study on professional learning engagement in Helsinki's primary schools found that teachers' practice communities had two distinct features: firstly, a strong commitment to teamwork within the same subject area, and secondly, collaboration with external professional colleagues. This engagement strengthened the teachers' affiliation with the school and their self-efficacy belief. The results indicated that strong learning communities not only promoted core competencies but also loyalty, mastery, and the conviction that the teachers' efforts positively impacted students, colleagues, and the school's overall organization (Paulsen, 2021, 2022a, 2022b). In light of my own research conducted in this project, existing research also emphasizes the need for school leaders to participate in networks across schools. At the same time, school leaders also have an opportunity to drive PLC development by facilitating such networks across schools. However, creating such networks as a middle manager is significantly more demanding and may involve more limitations than if they were organized by the municipality or county (Aas, 2022a; Paulsen, 2022a, 2022b).

5.4 Reorganization as a Measure to Increase Capacity and Time for PLC Development

In my research, it became apparent that timeframes were a factor that impacted development work. Middle managers felt that they did not have enough time to engage in development work and wished for more. Research in the field indicates that this is a widespread problem for middle managers in schools.

Middle managers in schools face the challenge of an often unclear and varied job description, which means they function as a support and protective intermediary for the principal while also receiving ad hoc delegated tasks. This situation can lead to middle managers spending a significant portion of their time on administrative and immediate tasks, which can reduce their capacity to focus on the development of professional learning communities (PLCs) in the school (Abrahamsen, 2022; Baldersheim et al., 2023; Bjørnset & Kindt, 2019; Paulsen, 2021; Paulsen & Jenssen, 2023).

To give middle managers more time to work on the development of PLCs, a clearer definition and demarcation of their roles are necessary. This can be achieved by establishing a more

structured and defined job description that clearly distinguishes between administrative tasks and those tasks that are directly related to pedagogical leadership and the development of PLCs. This will help to prioritize and focus efforts on areas that directly strengthen learning communities (Abrahamsen, 2022; Baldersheim et al., 2023; Bjørnset & Kindt, 2019; Paulsen, 2021; Paulsen & Jenssen, 2023).

Furthermore, it should be considered to delegate some of the administrative tasks to other staff members or administrative personnel. This will free up middle managers' time and resources, allowing them to concentrate more on educational leadership and the development of PLCs. The implementation of time management tools and efficiency strategies can also aid middle managers in their daily work by reducing the time spent on less essential tasks.

The principal, and other members of the leadership team should also recognize and value the efforts of middle managers in developing PLCs. By providing recognition, whether through verbal acknowledgment or other incentives, it will enhance the motivation and commitment of middle managers to this important work. This was evident in both my research and in research already existing in the field (Abrahamsen, 2022; Einarsen & Skogstad, 2021; Paulsen, 2021; Paulsen & Jenssen, 2023).

Even though I have pointed out some measures that can provide middle managers with more time to facilitate and develop PLCs, there is a need for further research in the area.

5.3 Summary of Analysis and Discussion

In this chapter, I have delved deeper into my own findings and compared them to existing research in the field. My focus has been particularly on the application and acquisition of school leaders' relational capital and their scope to build a culture characterized by psychological safety. A key element of this is having an open and inviting mind in the process of creating a common understanding in the work. Language is a tool to create a common understanding of words and concepts and to create shared meaning, and how the professional community conducts its conversations is significant for how the processes unfold. The interactions in PLC development involves positioning, negotiation, and trust-building, and

middle managers must be sensitive to the individual and the cultural contexts they operate in. This presents both opportunities and challenges for middle managers in the development of Professional Learning Communities (PLCs).

Additionally, I have examined the opportunities and challenges school leaders face in strengthening PLCs through facilitating networks that allow collaboration, experience sharing, and knowledge exchange across schools. I have also looked at suggestions on structural changes that enable school leaders, especially middle managers, to have more time to work on the development of PLCs.

There is also a need to give middle managers more time to work on the development of PLCs. Clarifying expectations, providing clear guidelines, and defining their roles can contribute to this. A clearer distinction between administrative tasks and those directly related to pedagogical leadership and the development of PLCs should also be established. Furthermore, it should be considered to delegate some of the administrative tasks to other staff or administrative personnel. This will free up middle managers' time and resources, allowing them to focus more on pedagogical leadership and the development of PLCs.

The elements identified contribute to the complexity of the school leader role and are full of potential challenges. Middle managers speak of joy and a sense of achievement when they accomplish desired results and goals. They express expectations and faith in their employees and view processes related to the development of PLCs constructively.

6 Conclusion

In this research, a thorough investigation was undertaken to understand the experiences, roles, and strategies of middle managers in the development of Professional Learning Communities (PLCs) within schools. Drawing from detailed interviews with four middle managers, the study highlighted significant opportunities, challenges, and areas for potential enhancement in PLC development.

The research revealed that middle managers are instrumental in nurturing and steering PLCs. They utilize their formal authority effectively to shape the structural frameworks of PLCs. A critical aspect of their role is managing and optimizing joint meeting times, which serve as vital platforms for collaborative learning, sharing pedagogical methods, and collective reflection. The ability of these leaders to structure these meetings effectively was identified as a key factor in ensuring their productivity.

Leaders like Aksel and Cecilie emphasized the importance of a tightly organized structure for these meetings, which has led to a more dynamic and inclusive meeting culture. This approach ensures focused and productive discussions, essential for the growth and effectiveness of PLCs.

However, the role of a middle manager in fostering PLCs is not without challenges. A significant issue faced by these leaders is the constraint of time. Balancing teaching responsibilities, administrative duties, and the development of PLCs often leads to limited time for the latter. This was particularly evident in the experience of David, who expressed frustration over the insufficient time allocated for school development activities, which often get overshadowed by other pressing tasks.

Another challenge lies in the relational dimensions of leadership. Establishing an environment conducive to open sharing and discussion within PLCs requires building trust and facilitating open communication. This aspect of leadership is complex, involving delicate negotiation, positioning, and trust-building among teachers and staff.

The study suggests several enhancements to better support PLCs development. One primary area is allocating more dedicated time for middle managers to engage in developmental activities. This could be achieved by clearly defining roles to separate administrative tasks

from pedagogical leadership responsibilities, potentially offloading some administrative duties to other staff members.

An important theme that emerged from the research is the value of networking and collaboration. Leaders like Beate and Aksel highlighted the benefits of networks of fellow leaders for sharing experiences and strategies. Such networks create a sense of community and strength, providing mutual learning and support, enhancing the PLCs within and across schools.

In conclusion, the role of middle managers in PLCs development is complex and multifaceted. It involves balancing structural, relational, and collaborative aspects of leadership. Despite facing significant challenges, particularly in terms of time constraints and the intricacies of relational leadership, there are substantial opportunities for enhancing the effectiveness of PLCs. These include strategic utilization of meeting times, fostering a culture of open communication and trust, and leveraging networks for collaborative learning and support. The findings from this research offer valuable insights into the dynamics of PLCs development and present practical implications for strengthening the role of middle managers in educational settings.

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Content

To: ███████████████████████████

From: Lars Ask

Subject: Invitasjon

Date: October 2, 2022

Kjære avdelingsleder,

I forbindelse med min masterstudie i endringsledelse ved Universitetet i Stavanger ønsker jeg å invitere dere til å delta i et forskningsprosjekt som fokuserer på utviklingen av Profesjonelle Læringsfellesskap (PLF) i den videregående skolen. Som 33-årig student med en sterk interesse for endringsprosesser innen utdanningssektoren, anser jeg dette som en unik mulighet til å dykke dypere inn i hvordan skoleledelse kan påvirke og forme effektive læringsmiljøer.

Formålet med mitt forskningsprosjekt er å undersøke og forstå de ulike metodene og strategiene som benyttes for å fremme og utvikle PLF i skolen. Jeg er spesielt interessert i å lære om de utfordringene og mulighetene som avdelingsledere møter i dette arbeidet, samt hvordan de navigerer i disse for å skape et positivt og produktivt læringsmiljø.

For å oppnå dette, ønsker jeg å gjennomføre kvalitative intervjuer med avdelingsledere ved ulike videregående skoler. Hvert intervju vil vare i omtrent en time, og jeg håper å kunne gjennomføre disse intervjuene enten fysisk eller digitalt, avhengig av hva som passer best for dere.

Deltakelsen i dette prosjektet vil ikke bare gi innsikt i deres verdifulle erfaringer og kunnskap, men også bidra til en større forståelse av PLF-utvikling i norsk skolesektor. Resultatene fra dette studiet vil bli brukt i min masteroppgave og kan potensielt bidra til fagfeltet ved å fremme innovative tilnærminger til profesjonell utvikling i skolen. Ettersom jeg skriver oppgaven min på engelsk vil intervjuene foregå på engelsk. Vi kan selvsagt benytte norsk dersom det oppstår behov for avklaringer og lignende.

Jeg er overbevist om at deres deltakelse vil være uvurderlig for denne studien, og jeg ser frem til muligheten for å lære fra dere. Vennligst ta kontakt med meg på telefon 45292487 eller via e-post l.ask@uis.no for å diskutere dette videre eller for å avtale et intervju.

Takk for at dere vurderer denne invitasjonen, og jeg håper å høre fra dere snart.

Med vennlig hilsen

Lars Ask

Masterstudent i Endringsledelse

Universitetet i Stavanger

Tlf: 45292487

E-post: l.ask@uis.no

Invitation to participate in the research project:

"Development of Professional Learning Communities (PLCs) in Upper Secondary Schools - A Qualitative Study"

I am approaching you with a request for participation in a research project focusing on how middle managers in secondary schools work to develop Professional Learning Communities (PLCs). This information letter will provide you with details about the project's goals and what your participation involves.

Purpose:

This research project is part of my master's thesis in change management at the University of Stavanger. The purpose is to explore and understand the various methods and strategies used to promote and develop PLCs in secondary schools. The study will particularly focus on the challenges and opportunities that middle managers face in this work.

Research Questions:

• How do you work on de-privatizing practice at your school? What is your role as a middle manager in this? What opportunities and challenges do you experience in this work in your role as a middle manager??

• How do you work with reflective dialogue? What opportunities and challenges do you experience in this work in your role as a middle manager??

• How do you work on developing a culture of collaboration? What opportunities and challenges do you experience in this effort in your role as a middle manager??

• How do you work on developing a collective focus on, and understanding of, student learning? What opportunities and challenges do you experience in this work in your role as a middle manager?

• How do you work with shared norms and values related to PLCs? What do you experience as opportunities and challenges in this work in your role as a middle manager?

Data Collection:

Data collection will consist of qualitative, semi-structured individual interviews and one focus group interview with middle managers. The interviews will be recorded as audio, transcribed, and all names will be anonymized.

Scope:

We are looking for four middle managers from different secondary schools for participation

in this project..

Responsible for the Research Project:

The project is part of a master's thesis at the University of Stavanger..

Your Role as a Participant:

As a participant, you will be asked to participate in an individual interview and a group interview. The individual interview will last about 60 minutes.

Voluntariness and Privacy::

Participation in the study is voluntary, and you can withdraw your consent at any time without consequences. Your personal data will be treated confidentially and in accordance with applicable data protection regulations. The information will be stored securely and anonymized after the project's completion..

Your Rights:

You have the right to access the personal data registered about you, and you can request that these be corrected, deleted, or submit a complaint to the Data Protection Authority..

Consent to the Processing of Personal Data:

We process your personal data based on your consent.

Contact Information:

If you have questions or wish to exercise your rights, you can contact me, Lars Ask, at l.ask@uis.no or phone: 45292487.

Sincerely,

Lars Ask

Master's Student in Change Management

University of Stavanger

Phone: 45292487

Email: L.Ask@uis.no

Consent Form

I have received and understood information about the project "Development of Professional Learning Communities (PLCs) in Upper Secondary Schools - A Qualitative Study" and have had the opportunity to ask questions. I consent to:

___ to participate in an individual interview where audio will be recorded.

I consent to my information being processed until the project is completed, approximately August 1, 2024.

(Signed by project participant, date)

Preparation and Facilitation of the Interview Situation	In advance, I would like to request to conduct the interviews in a geographically suitable place within the agency's premises, where we will not be disturbed by noises, movements of others, etc. It would be desirable to have a room where one cannot see other people, and which is well soundproofed. The informants will be sent the information letter before the interview, and have given written, informed consent before we meet.	Based on Kvale og Brinkmann (2015).
Introduction	**Brief:** I explain the purpose of the interview, about the voice recorder, the time frame, and other practical matters (turn off the mobile phone), and ask if the informant has any questions before the interview starts. I mention that I am primarily interested in the team interaction and the informant's experiences of this. I inform that everything will be anonymized and encourage them to speak up if any questions are experienced as uncomfortable.	Based on Kvale og Brinkmann (2015).

Research question number	Question	Reflection around the question
1.	*How do you work on de-privatizing practice at your school? What is your role as a middle manager in this? What opportunities and challenges do you experience in this work in your role as a middle manager?*	This is a specific and straightforward question for the interviewee to talk about, and it can be a good way to start an interview (Brinkmann & Tanggaard, 2012). Here, the starting point is how the school (via middle managers and/or other leaders) works and facilitates so that staff can observe each other's practice and provide feedback on it. This could involve teachers observing each other in the classroom. This is PLCs at a superficial level.
2.	*How do you work with reflective dialogue? What opportunities and challenges do you experience in this work in your role as a middle manager?*	This question is based on how the middle manager works to change attitudes and create psychological safety that can provide space for teachers and other staff to open up to each other and dare to receive input and thoughts on their own and others' teaching practices.
3.	*How do you work on developing a culture of collaboration? What opportunities and challenges do you experience in this effort in your role as a middle manager?*	Here I ask how the middle managers facilitate teachers and other professionals working together to develop existing teaching practices, as well as creating new perspectives on learning and teaching, based on shared ideas.
4.	*How do you work on developing a collective focus on, and understanding of, student learning? What opportunities and challenges do you experience in this work in your role as a middle manager?*	Here I ask about how they work to develop a collective understanding of how students learn and how they work for this (collective) understanding to concretely manifest itself in practical actions.
5.	*How do you work with shared norms and values related to PLCs? What do you experience as opportunities and challenges in this work in your role as a middle manager?*	This question delves into what is referred to as cultural change at a deeper level, also described as underlying assumptions (Schein & Schein, 2017; Blindheim, et al., 2021). Here, the goal is not merely changes in what is said and done on the surface but rather cultural changes at a deeper level. Thus, the questions move from asking about how things are done 'on the surface' to how work with PLCs involves collectively shaping shared norms and values at a deeper level. The questions transition from relatively concrete and 'simple' ones at the beginning to gradually requiring more reflection from the interviewee's side. Allowing the interviewee to 'warm up' before asking demanding questions can be wise (Kvale & Brinkmann, 2015; Postholm & Jacobsen, 2018).

Conclusion	**Debrief #1**: I conclude by thanking for an interesting conversation, and ask if I can contact the informant directly if I have any questions afterwards. Then, I ask if the informant has anything to add or any questions, or if there's anything they would like to include. After that, I ask how they experienced the interview and what they think about my conduct. During this time, I will spend 10 minutes summarizing my impressions of the non-verbal cues I observed, which cannot be captured on the recording: Body language, facial expressions, comfort level, interest/engagement, in short, how I "read" the informant and whether there were any questions or situations that elicited particular non-verbal reactions.	Kvale og Brinkmann (2015). 1. May I contact you if I have any questions related to the interview? 2. Do you have anything you would like to add or ask? 3. How did you find the experience of participating in this interview? 4. Do you have any comments about my conduct during the interview? Anything you reacted to?

Introduction to the Interviews: Contextualization and Validation.

Welcome to the interview. Thank you for taking the time to speak with me. I really appreciate it.

- My name is Lars, and I'm a master's student in change management at the University of Stavanger. Normally, I work as a middle leader.

- I am working on a master's thesis about challenges and opportunities middle leaders face in the development of PLCs

- Therefore, I am very pleased to have the opportunity to talk with you about how you experience this in your job.

- And it's precisely your experience that is important here. I work qualitatively, which means that I am interested in how you experience and understand the concepts we will talk about, and how you experience the creative interplay in the team.

- This also means that there are no right or wrong answers to my questions. I am interested in you and your experiences. But I am primarily interested in the interplay in the team you are part of.

- Voice recorder – Everything will be anonymized and stored securely. Information letter – you can read the transcript if you want to.

- I am interested in your role as a middle manager in the development of PLCs.

- Time frame: about an hour. Please turn off your mobile phone.

- Some of the questions may feel repetitive, but this is intentional to gather solid data for my research question.

- If anything becomes uncomfortable, please let me know. If you do not wish to answer something, feel free to say so.

- Do you have any questions before we begin?

How is the transcription carried out? (Kvale and Brinkmann, 2015)

When: Interview at 15:30-16:30, January 27, 2023. Transcription on January 30.

Platform: Psyical meeting at the middle leader's own school.

How: Relatively verbatim. Filler words and hesitations are cut to a certain degree for better flow. The language is generally cleaned up for better written flow, without loss of meaning. Notes I took were used in the transcription process to enhance self-reflection.

By whom: Lars Ask

I: Can you briefly tell me about your school??

R: ███
██
██
██
██

I: How many are you in the leadership team, and how many are there at the school??

R: ███
████████████████████████████

I: Regarding PLCs, which are the basis for this interview, how do you work on de-privatizing practice at your school?

R: Eeh. Good question. We do it all the time, always in a way...At our school, joint time is central to the development of PLCs. I try to manage these joint meetings with a tight structure. It's crucial to ensure that we use this time effectively for sharing experiences and learning together. I see this time as an invaluable resource for developing our professional learning community. It allows us to reflect on our teaching practice, explore new pedagogical methods, and strengthen our collective competence.

I: Could you tell me a bit more about how you do it in practice?

R: I have a lot of freedom to do tasks in my own way. As a middle manager, I'm responsible for managing these joint meetings. I try ensure that there's a very tight structure on them. I feel, if the structure is too loose, it quickly becomes all talk and no action. My role is to create tasks that we are going to work on, formulate the issues for discussion, and then also define what we should end up with.

I: And this freedom of action feels useful to you in the aforementioned work?

R: Yes, very much so. It also stimulates the desire to work when you are allowed to choose, choose ways you want to approach certain things. But then, that also means that one must be interested in the task...

I: Good! Can you tell me more about your role as a middle manager in this, and opportinuties and challenges related to this?

R: Oh, I have a mix of tasks and roles. As I already mentioned, I try to stick to a tight schedule and structure. The opportunity lies in creating moments where we can share and challenge each other's thinking. The challenge is in maintaining the structure and ensuring that these meetings are not just about talk but lead to concrete actions and improvements in our teaching practices

I: With regards to PLCs, how do you work with promoting reflective dialogue at your school?

R: In reflective dialogue, I focus on guiding discussions that prompt teachers to reflect on their practice and student learning. It's about asking the right questions that lead to critical analysis and actionable insights.

I: What challenges do you face in this aspect?

R: The main challenge is ensuring that these reflective dialogues are not just theoretical but translate into practical changes in the classroom. It's about balancing reflection with action. But I feel maybe that the concept of relective dialogue has become a bit watered down over time. It's become one of those "fluff words" that is just tacked onto things. But sharing thoughts is fun. I mean, it's fun to share ideas and thoughts with collegues... Emm...The main challenge is ensuring that these reflective dialogues are not just theoretical but translate into practical changes in the classroom. It's about balancing reflection with action.

I: Interesting! Can you elaborate on your efforts in developing a culture of collaboration?

R: Uh. I'm a bit curious about what you mean when you're asking about culture of collaboration?

I: Just generally.

R: Yes…there are team meetings and so on...Developing a collaborative culture involves organizing team teaching initiatives and collaborative planning sessions. It's also about recognizing and celebrating collaborative efforts. We alternate between using our joint time for administrative information and for development work, either jointly or in teams.

I: Can you tell me more about how you do this, what challenges and opportunities do you as a middle manager encounter?

R: The significant obstacle is the resistance to change. Some teachers are used to working independently, so it's a challenge to shift them to a more collaborative mindset…Yes, like that. People often work on their things, they like solving things in their own way… As a middle manager, my role involves…hmm...what to call it...orchestrating these opportunities for collaboration and reflection. I focus on creating a safe environment where teachers feel comfortable discussing and sharing, both specific ideas about teaching they have, as well as successes and challenges in using these ideas in practice...

Attachment 5: Example of Coding a Transcript

I: Can you briefly tell me about your school??

R: ██
██
██
██

I: How many are you in the leadership team, and how many are there at the school??

R: ██
█████████████████████████

I: Regarding PLCs, which are the basis for this interview, how do you work on de-privatizing practice at your school?

R: Eeh. Good question. We do it all the time, always in a way...At our school, joint time is central to the development of PLCs. I try to manage these joint meetings with a tight structure. It's crucial to ensure that we use this time effectively for sharing experiences and learning together. I see this time as an invaluable resource for developing our professional learning community. It allows us to reflect on our teaching practice, explore new pedagogical methods, and strengthen our collective competence.

(A)

I: Could you tell me a bit more about how you do it in practice?

R: I have a lot of freedom to do tasks in my own way. As a middle manager, I'm responsible for managing these joint meetings. I try ensure that there's a very tight structure on them. I feel, if the structure is too loose, it quickly becomes all talk and no action, and I feel that time is a challenge. There is not enough time to work with PLCs in the normal school day. My role is to create tasks that we are going to work on,

(A) + (B)

(B)

(B)

(A) + (B)

11

(A) + (B)

formulate the issues for discussion, and then also define what we should end up with.

I: And this freedom of action feels useful to you in the aforementioned work?

R: Yes, very much so. It also stimulates the desire to work when you are allowed to choose, choose ways you want to approach certain things. But then, that also means that one must be interested in the task...

I: Good! Can you tell me more about your role as a middle manager in this, and opportinuties and challenges related to this?

R: Oh, I have a mix of tasks and roles. As I already mentioned, I try to stick to a tight schedule and structure. The opportunity lies in creating moments where we can share and challenge each other's thinking. The challenge is in maintaining the structure and ensuring that these meetings are not just about talk but lead to concrete actions and improvements in our teaching practices

(B)

I: With regards to PLCs, how do you work with promoting reflective dialogue at your school?

R: In reflective dialogue, I focus on guiding discussions that prompt teachers to reflect on their practice and student learning. It's about asking the right questions that lead to critical analysis and actionable insights.

(C)

I: What challenges do you face in this aspect?

R: The main challenge is ensuring that these reflective dialogues are not just theoretical but translate into practical changes in the classroom. It's about balancing reflection with

(C) + (D)

(C+ D)

(action.) But I feel maybe that the concept of relective dialogue has become a bit watered down over time. It's become one of those "fluff words" that is just tacked onto things. But sharing thoughts is fun. I mean, it's fun to share ideas and thoughts with colleges... Emm...The main challenge is ensuring that these reflective dialogues are not just theoretical but translate into practical changes in the classroom.

I: Interesting! Can you elaborate on your efforts in developing a culture of collaboration?

R: Uh. I'm a bit curious about what you mean when you're asking about culture of collaboration?

I: Just generally.

R: Yes…there are team meetings and so on...Developing a collaborative culture involves organizing team teaching initiatives and collaborative planning sessions. It's also about (C) recognizing and celebrating collaborative efforts. We alternate between using our joint time for administrative information and for development work, either jointly or in teams.

I: Can you tell me more about how you do this, what challenges and opportunities do you as a middle manager encounter?

R: The significant obstacle is the resistance to change. Some teachers are used to working independently, so it's a challenge to shift them to a more collaborative mindset...Yes, like that. People often work on their things, they like solving things in their own way… As a middle manager, my role involves…hmm...what to call it...orchestrating these opportunities for collaboration and reflection. I focus on creating a safe environment where teachers feel (C+ D) comfortable discussing and sharing, both specific ideas about teaching they have, as well as successes and challenges in using these ideas in practice...

(C)

Attachment 6: Final Categories for Analysis.

Each category and theme is derived from the analysis of the transcribed interviews, identifying key patterns, similarities, and differences in the informants' responses. This coding helps in structuring the qualitative data for more detailed analysis and interpretation (Kvale & Brinkmann, 2015).

Categories	Theme	What is this category about?
A	Opportunities in using structural frameworks to drive development of PLCs.	How middle managers use their formal authority to control formal frameworks and action spaces to develop PLCs, and opportunities related to this.
B	Challenges in using structural frameworks to drive development of PLCs.	How middle managers use their formal authority to control formal frameworks and action spaces to develop PLCs, and challenges related to this.
C	Opportunities in using relational processes to develop PLCs.	How middle managers work relationally to develop PLCs, and opportunities related to this.
D	Challenges in using relational processes to develop PLCs.	How middle managers work relationally to develop PLCs, and challenges related to this.
E	Changes that can strengthen middle managers' scope for action in the development of PLCs.	Changes that can be made in order to strengthen middle managers' scope for action in the development of PLCs.

Attachment 7: Final Analysis Template

Category	Theme	What do the informants tell us?	Overlap	Informant
A	Opportunities in using structural frameworks to drive development of PLCs			
B	Challenges in using structural frameworks to drive development of PLCs			
C	Opportunities in using relational processes to develop PLCs			
D	Challenges in using relational processes to develop PLCs			
E	Changes that can strengthen middle managers' scope for action in the development of PLCs			

Attachment 8: Examples of overlap in the analysis when I did the transcription.

In example, to middle manangers, something can be both a challenge and an opportunity at the same time in the development of PLCs.