

Case-based Instruction for Leadership Learning in the Norwegian National School Leadership Program

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Abstract

This article focuses on the use of case-based instruction in the National School Leadership Program offered by universities in Norway. The research addresses the following research question: How can case-based instruction promote leadership learning when used in school leadership programs? The study demonstrates case-based instruction's ability to create promising learning possibilities for leadership learning. Hence, to effectively use case-based instruction in formal school leadership programs, there is a need for more empirical research on case-based instruction in practice, especially related to case content, case organization **and facilitation**, case analysis, case application, and linking case-based instruction to authentic learning in schools.

Keywords

Case-based instruction, professional learning, school leadership learning, leadership education, qualitative empirical research

International research has documented a variety of strategies for fostering the professional development of school leaders (Lumby et al., 2008; Young & Crow, 2017).

In school leadership development programs, case-based instruction is a widely used strategy (Taylor et al., 2009). The goal of using case-based instruction is to challenge students to struggle with multifaceted issues related to the cases and to serve the

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need for educational leadership programs to address the application of theory to practice (Tucker & Dexter, 2011). As seen in empirical research on case-based instruction, discussing cases and their attributes provides a potentially viable approach for increasing leadership knowledge (Avolio et al., 2009; Yukl, 2010). First, case-based or experiential knowledge allows leaders to make sense of complex, unfolding situations, to understand the expectations of followers and to formulate visions, and new practices (Mumford et al., 2012). Second, case-based knowledge appears to be relatively easily acquired, such as through narratives presented by actors who are engaged in problem solving. Third, the evidence also indicates how strategies for working with case-based knowledge foster learning and depend on the *content, analysis, organization, and application of cases* in leadership development programs (Mumford et al., 2012).

The current article follows this line of reasoning and reports on case-based instruction used for leadership learning and addresses the following research question: How can case-based instruction promote leadership learning when used in school leadership programs? Empirically, the article is grounded in a larger qualitative observation research study of case-based instruction for leadership learning used in a National School Leadership Program in Norway, situated at two universities, for newly appointed school leaders (Hybertsen et al., 2014). In the current article the use of case-based instruction in the leadership program offered by one of the universities in 2019 are examined. The article aims to document and discuss how case-based instruction in a National School Leadership Program might foster leadership learning related to handling complex problem situations and developing decision-making skills, which is perceived as crucial in educational leadership (Merseeth, 2015).

In the article, we first describe the National School Leadership Program, after which we present research on case-based instruction for leadership learning and explain the school case narrative in use. Next, we provide an overview of the methodological approach before presenting and discussing the findings. Finally, we conclude by briefly foregrounding some of the study's implications for practice and some directions for future research.

The National School Leadership Program

The Norwegian authorities, influenced by the OECD project *Improving School Leadership* (Pont et al., 2008), launched a nationwide education program for newly appointed principals in 2009 with the goal of improving their qualifications as leaders and supporting national policies. The National School Leadership Program, offered by selected universities and colleges, was to be built around five curriculum themes deemed important by the Norwegian Minister of Education and Research deemed important: students' learning, management and administration, cooperation and organization building, development and change, and the leadership role (Hybertsen et al., 2014). According to Timperley (2011), one of the fundamental principles of professional learning is having multiple opportunities to learn and apply information. Therefore, a process of ongoing reflection and discussion challenging the current way of thinking is valuable in terms of building new practices. This theoretically informed

knowledge is the reason why we, as university teachers and researchers, utilize reflective methods like case-based instruction, and group coaching in the school leadership programs that we have developed and manage. In such programs, these methods have been used to influence practice and build leadership capacity, including developing ethical considerations (Aas & Vavik, 2015). As evidence indicates the discussion of cases and case attributes provides a potentially viable approach for leaders to build knowledge (Avolio et al., 2009; Yukl, 2010), case-based instruction is one of several learning modes applied that might contribute leadership learning crucial for school leaders to handle their roles as pedagogical leaders (Merseth, 2015).

Case-based Instruction for Leadership Learning

As aforementioned, the use of cases has been showcased in the field of school leadership development for some time as a tool to foster school leaders' professional development. It should be noted there are some definitional issues debated in the field related to the use of terminology, such as "case method," "problem-based learning" (PBL), "case-based instruction," and "teaching from cases." Some writers use the terms almost interchangeably. However, it is not the intention here to engage in a discussion on the differences in meaning of the various terms in use (for a useful analysis of some issues and terms, see Fauske [2000]). In this article, we use the notion of *case-based instruction*, an instructional method in which cases provide focus for group discussions about problem situations in school development work, analysis and knowledge generation; the overall intention of case-based instruction is to foster leadership learning for principals and give them tools to confront similar situations at their schools. This way of organizing work resembles what Van der Veer and Valsiner (1991) called "experimental" and highlights how experimental settings must be seen as a context of investigation in which the instructors can introduce the participants to uniquely framed problems and manipulate their structure to stimulate—but not produce—the participants to frame and construct solutions to the problems.

Based on a research review of case-based instruction in leadership education, Mumford et al. (2012) explicated how strategies for working with case-based knowledge fostering leadership learning are related to and dependent on four key components: (a) case content, (b) case analysis, (c) case organization, and (d) case application of cases. In the following, we will elaborate on these components with regard to leadership learning in leadership education.

Case Content

Concerning case content, students should work with prototypic cases before exceptional or unusual cases are presented, and instructors should be aware of the mental models they provide for organizing the cases as well as how advanced leaders handle complex cases better than less-experienced ones (Mumford et al., 2012). Additionally, more experienced leaders prefer to work with more global descriptions of case material, especially when they are given the opportunity to seek additional information as

necessary. For novice leaders, however, excessively detailed case information may prove overwhelming (Ericsson & Charness, 1994). As a result, Mumford et al. (2012) emphasized that case material for fostering leadership learning should be presented with a moderate level of detail, where instructors can seek to stress critical aspects of the case as they apply them to how events unfold.

Case Analysis

Case-based instruction must also provide leaders with strategies for working with case-based knowledge (Mumford et al., 2012). Strategies relate to how leaders activate the cases, carry out case analysis, and retrieve and use the information collected in cases. As Scott et al. (2005) noted, to use case information in sensemaking and problem solving (Weick, 1995), people must actively work with the elements of a case—its causes, resources, limitations, and actions—in seeking potential outcomes.

However, what should be recognized here is how the type of information drawn from case-based knowledge and the strategies appropriately employed in working with this knowledge will vary as a function of problem type (Mumford et al., 2012). This point was illustrated in a study by Vessey et al. (2011), who indicated, when problems were social in nature, training in affective or goal-oriented strategies was particularly helpful for leader performance. When the problem was more objective or less personal, training in causal analysis, and resource utilization strategies resulted in the best leader performance.

The findings obtained in these studies are important for three reasons concerning fostering leadership learning. First, the best possible case-based instruction requires strategies for working with case-based knowledge as well as the provision of cases. Second, different problem types and cases will call for the use of different strategies by leaders in problem solving. Third, leader performance is most likely to improve learning when multiple high-value strategies for working with cases are provided. Thus, it is not sufficient in case-based instruction to merely provide cases. Practical strategies for working with the information embedded in these cases must also be provided (Vessey et al., 2011). According to Mobley et al. (1992), people acquire case-based knowledge quickly, while strategies for working with this knowledge are often acquired more slowly. In leadership education based on a case approach, it is thereby critical to provide self-reflection and learning to improve skills, which requires long-lasting leadership programs (Marcy & Mumford, 2010).

Case Organization

A variety of frameworks are available for organizing case-based knowledge. Cases might be organized based on theory, on certain aspects of case content (e.g., causes, goals, actors) or features of the situation (e.g., tasks, time pressure, risks; Hmelo-Silver & Pfeffer, 2004). In this regard, we should consider how people have implicit theories, or mental models, which are obtainable for organizing their experiences of and as leaders (Lord & Hall, 2005). However, these naive or implicit theories, as well

as the variables drawn from these theories to organize case-based knowledge, may not be consistent with the organizing structure provided in leadership education programs (Mumford et al., 2012). This noteworthy implies both sensebreaking and sensemaking (Gioia & Thomas, 1996) exercises should be provided in leadership education to allow students to discount their extant organizing structures (e.g., mental models or implicit theories) and to adopt the organizing structures being taught in the leadership education program at hand. In their research, Mumford et al. (2007) argued that the organizing structures provided for cases through theory, case elements **applied**, or situational features will change as people gain experience and progress in their careers as leaders. Thus, organizing structures should not be viewed as fixed when cases are used to foster leadership learning in education programs.

Case Application

Regarding case application, frameworks used to structure or organize cases in leadership education should be capable of being adapted by leaders for use in real-world settings (Mumford et al., 2012). Moreover, the leadership learning of cases appears to improve when case-based knowledge is actively applied in real-world problem solving (Kolodner, 1997). Another potentially viable approach for supplying leaders with practice in applying case-based knowledge is to encourage leaders to describe and discuss case prototypes as well as major exceptions to these prototypes (Yukl, 2010). Asking students to participate in classroom exercises where feedback regarding peers or instructors is given concerning their use of cases, case organization, and strategies is another classroom approach to employ to foster learning (Taggar, 2002).

In sum, Mumford et al. (2012) suggested a systematic approach is needed in developing the cases we apply to foster leadership learning in leadership education because case-based knowledge provides the foundation for leaders to think about the critical, complex problems presented to them as they seek to advance our institutions, and our world. The underpinnings of case-based instruction in the literature reviewed here describe strategies for working with case-based knowledge to foster leadership learning and provide valuable knowledge to consider when preparing case-based instruction as a reflective learning method. We found the key components these strategies relate to and depend on as suitable analytical codes for analyzing the case-based instruction examined in this article. Before looking at the particular case-based instruction **examined**, it is instructive to **briefly note** some identified challenges likely to arise in case-based instruction for leadership learning.

Challenges in Case-based Instruction for Leadership Learning

Researchers have noted those engaged in working through cases can often miss the complexities. Griffith and Taraban (2002) observed participants often headed in the direction of searching for the “right answer” rather than “exploring the case complexities” (p. 8). This observation resonates with what we found (Vennebo & Aas, 2019), where groups of school leaders who were engaged in case-based instruction used most

of their time to find solutions to the problems at hand by sharing leadership experiences and to a lesser extent by analyzing and exploring the complexity of the situations or using theory. Moreover, our observations showed the emerging group discussions were often unstructured and characterized by unpredictable shifts in negotiating what the problems and challenges to be addressed were and the ways to solve them.

By missing the complexities, responses may address surface problems rather than the underlying problems (MacNeil, 1998), with their inherent tension and contradictions needing to be recognized and worked on (Vennebo & Aas, 2020b). We have argued (Vennebo & Aas, 2019, 2020a) that working with cases in groups of school leaders requires participants to learn to manage, deal with and problem solve multiple complexities, perspectives and tensions. There is no right answer, nor is there likely to be only one way of dealing with the problematic situations presented in a particular case (Van der Veer & Valsiner, 1991). Indeed, it is in guiding school leaders to recognize and understand the deeper complexities of the situations presented to them by case narratives and developing coherent and reasoned responses to these complexities where real learning can occur (Scribner & Donaldson, 2001).

Based on the research findings presented here and our observations, we have developed supportive tools for success in working with principal groups, a key element of which is to lead them to handle their facilitating role in leading professional group discussions about problem situations and developing decision-making skills (Vennebo & Aas, 2019, 2020a), which is perceived as crucial in the field of educational leadership (Merseeth, 1997).

The School Case Narrative and the Supportive Tools

In this section, we provide an overview of the school case narrative in use and the supportive **tools. As mentioned in the presentation of the National School Leadership Program, as** university teachers and researchers in charge of the program **we have** developed the cases for use in the program, as a part of a broader effort to utilize experimental and reflective methods with the overall intention of fostering principal leadership learning.

This article presents one of the cases utilized in the program, the case of Blueberry School (**Appendix A**), **concerning** complex issues related to accountability and their implications for leadership. The case is structured as a story presented in text with the principal of Blueberry School as the main character facing three different problem situations. The three problems reflect different leadership challenges: a conversation with the superintendent about students' bad test results, a critical letter from the teachers' union, and the expectations of the superintendent and politicians. In the case design, we applied a cultural-historical activity theory (CHAT) approach, which perceives tensions and contradictions as being part of all change processes (Engeström, 2001). Additionally, the superintendent, the union and the politicians are seen as key players who normally have intersecting interests and motives able to exacerbate tensions. The case content is therefore empirically and theoretically informed.

The supporting tools we have developed (Vennebo & Aas, 2019, 2020a) might be seen as scaffolding strategies for those leading group discussions about the complex problem situations presented to them by the case. More specifically, the tools are developed to support a structured facilitation approach and to help handle the facilitating role. Inspired by a framework for group coaching, we first developed a conceptual model (Vennebo & Aas, 2019) for helping the leaders in structuring the group discussions using four steps: (1) setting the stage, (2) inviting points of view and arguments, (3) advancing the discussion, and (4) wrapping up the discussion.

Next, we further developed the model by using CHAT (Engeström, 1987) to include questions supporting principals in leading group discussions (Vennebo & Aas, 2020a) and handling their facilitating role, especially concerning understanding and considering the deeper complexities of the situations presented in cases. This included using theoretical knowledge (CHAT) in leading the goal-oriented discussion related to the current content of the cases as well as understanding, accessing, and addressing the complexities of the context in which leadership and problem situations within school development processes are situated. Central to the theory, problem spaces are tension laden, and the context cannot be reduced to something simply “surrounding”; instead, the context is interwoven, for example, in situated problem spaces (Engeström, 1987, 2001). Literature (such as journal articles, book chapters, and books) relevant to the case were also identified and presented to the participants as resources.

Methodology

The Discussion Context, Participants, and Data Collection

The study reported in this article is, as mentioned in the introduction, is a part of a larger qualitative observation study regarding case-based instruction used in national school leadership programs offered by Norwegian universities. The larger research study was undertaken from 2011 to 2019. In the study, we use data collected from group discussions featuring principals who participated in one of the universities' program in 2019 while they discussed one of the problem situations at Blueberry School—criticism from teachers—using and piloting the supportive tool. The entire student principal group consisted of 60 participants who were divided into 3 groups of 20. In each group, one participant was selected to lead a discussion related to the criticism from the teachers in the case narrative. Three participants each led a discussion with 5 members, while the remaining 15 members in each group observed the discussion. A teacher/researcher observed each of the discussions and took log notes. Each group discussed the problem for 45 minutes. After the discussions were completed, the teacher/researcher led meta-discussions with the other 15 members of each group, who had observed the discussions, as well as the five members of each group who had participated in the discussion. One participant from each group of 20 was asked to take log notes on the meta-discussions.

As leading professional group discussions is critical in leading change processes in schools and includes handling problematic situations, we took the learning a

step further and asked the participants to lead a discussion in their schools using the conceptual model as scaffolding. During the period between April and June 2019, a fellow student had to observe the discussion, take log notes and share the observations with the other students and their logs on the learning platform.

The observation logs of the three teachers/researchers from the discussions of the three groups constituted the core data analyzed for this article, and the analysis of the group discussions was undertaken by the research team. The observation logs from the meta-discussions were used as supplementary material to add information about the students' experiences of the group discussions, as were the logs from the participants leading the group discussions in their schools.

The participating principals represented different school levels, school sizes, and geographical locations in Norway. The case-based instruction in use was conducted under the guidance of teachers/researchers. Before the group discussions, all participants received an introduction to the supportive tool, the conceptual model with its question and CHAT, as well as how the questions were derived from this theory.

Data Analysis

Inspired by Richards (2014), the data analysis of the core data comprised a three-level process: descriptive, thematic and analytical. On the **descriptive** level, we worked inductively to systematize the data through the thematic organization of the issues brought up by the groups of principals, while the thematic level involved mapping and sort out the issues attracting attention and discussed across the groups. We then carefully read and reread the log notes focusing on these issues, and the work on the last level, the analytical, consisted of in-depth analysis of the issues. On this level, we used the four key components which Mumford et al. (2012, p. 24) claimed should be considered when cases are used for leadership learning in leadership learning programs, as analytical codes: (a) case content, (b) case analysis, (c) case organization, and (d) case application. The in-depth analysis led to the definition of four categories, which are both empirically and theoretically driven, into which the information could be sorted:

- (1). Issues linked to the principals' "real-life" experiences;
- (2). Facilitation and leading different discussion approaches;
- (3). Principals' experiences and theory as analytical reflective strategies; and
- (4). Linking the case to everyday life and piloting leadership strategies.

Generalization was not the intention of our study due to the selection of such a small sample in terms of using case-based instruction for learning leadership in school development programs; however, we followed Stake's (1995) call for the use of naturalistic generalizations. Readers are left to generalize for themselves, based on conclusions arrived at through their personal engagements in life or via vicarious experiences constructed so well that one feels as if they have happened to oneself.

Ethical Considerations

The study complied with the ethical principles required by the Norwegian National Research Ethics Committees (NESH, 2016) and the guidelines given by the Norwegian Centre for Research Data (NSD). All participants gave their consent to participate after being given oral information about the purpose of the study and their roles. They were assured of their confidentiality and informed they were free to withdraw from the study at any time without explaining their reasons for this. When reporting the data, names were replaced with pseudonyms.

Findings and Discussion

The findings showed case-based instruction presents promising possibilities for learning leadership in school leadership programs. However, the findings evinced there are also challenges and continuous room for improvement in including this type of learning approach in school leadership programs. The main question of this article was related to understanding how case-based instruction can promote leadership learning when used in school leadership programs. In this section, we present and discuss the findings organized according to the four categories derived from the analyses. Our findings are exemplified by using excerpts from the data.

Issues Linked to the Principals' "Real-Life" Experiences

The findings illustrated how issues inherent the problem situation corresponded to the principals' "real-life" experiences and mental models (Lord & Hall, 2005). Through their work on the problem situation, the principals demonstrated familiarity with the descriptions and questions in the case presented, and it was easy for them to identify with the problem situation, discuss and reflect on different resolutions. An example from the conversation of one of the groups of principals—concerning what the Blueberry School principal's challenges would be when he was to meet the criticism from the teachers—exemplifies how the participants can recognize the situation from their daily leadership practices. One principal shared, "actually, I have experiences with—I have almost been in the same challenging situation just now." Another expressed the principal, in any case, "must adhere to the demands of the superintendent," followed by "but, clarification is needed in relation to what union can comment on and what it can decide." Clearly, as the participants refer to their experiences as shown here the problem situation is known to them and provide the basis for cognition necessary for leaders' learning based on case-based instruction (Mumford et al., 2012).

The principals in all the groups were engaged in acting on the problem situation; however, it is evident their engagement with the complex problem situation was mainly directed toward finding solutions to the and to a lesser extent toward analyzing and exploring the situation's complexities. This finding agrees with what Griffith and Taraban (2002, p. 8) observed, where participants often headed in the direction of searching for the "right answer" rather than "exploring the case complexities"; in lacking this

level of complexity, the principals' responses may address the surface challenges rather than the underlying problems with their inherent tensions (see also MacNeil, 1998; Vennebo & Aas, 2020). As such, they may not activate optimal learning to deepen their understanding of the problem. The solutions suggested will thereby ultimately not provide a solution to the root of the problems.

Moreover, the analysis showed, although those leading the discussions could rely on the conceptual model with its four steps for assistance in structuring the discussions, the group discussions regarding the concerns attracting the participants' attention were often unstructured and characterized by unpredictable shifts in negotiating what the problems of the school and the principal were and the ways to solve them. As one of the participants expressed, "We need to be more concrete, we beat around the bush in a way, we turn our attention toward many things here." This was a challenge for the performance of all three groups and exemplified group discussion practices constituting an interplay in which the participants' viewpoints, to some degree, were explored, aligned, coordinated, and converged into a collective interest regarding the challenges to address. The logs from the meta-discussions show that the participants found the case information messy. It was challenging to focus on the problem situation because the case included a number of problems or challenges to be addressed. These findings might demonstrate that the case proved overwhelming (Ericsson & Charness, 1994) on the newly appointed principals and should be presented with a more moderate level of details for stimulating a deeper understanding of the problem situation and the emergence of real leadership learning (Scribner & Donaldson, 2001).

Facilitation and Leading Different Discussion Approaches

There are a variety of frameworks available for organizing case-based knowledge—for example, based on theory, on certain aspects of case content or on features of the situation (Hmelo-Silver & Pfeffer, 2004). Thus, when cases are used for leadership learning in school leadership programs, there is a need to investigate how facilitation can lead to different discussion approaches and how these approaches can foster learning.

The analysis showed the principals leading the discussions focused first on fostering an open process by involving all participants via giving all members a chance to provide their opinions and to have their thoughts heard. The principals paid less attention to the types of actions though they are considered essential to keeping such discussions on track and carrying them forward, including making plans for further actions. Most of the principals started the discussion by describing the problematic situation at Blueberry School encountered by the principal and then inviting the other group participants to share their points of view on the critical situation in the wake of the letter from the union. However, before letting the others in the group present their viewpoints, they first expressed how they thought the principal should respond, as exemplified here:

This principal is experiencing a squeeze from the superintendent's demands and the teachers' resistance to change. How can he resolve this situation? He has to do something.

What are you thinking? It is the union that expresses the complaints, and then, if I was the principal of this school, I would team up with the union, simply because if you get the union's take on a positive and constructive approach, then it can be a valuable change agent in the process.

The analysis of the observation logs and feedback from the participants revealed the facilitation of the case discussion appears critical when it comes to leadership learning. We could see how the principals leading the group discussions used the supporting questions and, as such, addressed contextual conditions to advance the discussions, such as the regulating rules and norms, interests of the community, and the division of labor (see Engeström, 1987). For example, when they invited the participants to identify the most problematic issues related to the teachers' criticism, the participants' responses reflected the contextual conditions. This is exemplified here, where one participant focused on conflict and stated: "We have to find a solution to the conflict between the union and the principal," and another suggested the idea of running two development projects simultaneously had to be reconsidered. Other participants drew attention to different aspects of the teachers' situation. For example, one commented, "We have to do something about the teachers' motivation," and another observed, "We should examine the teachers' work tasks to find out if it is true that the number of work tasks has increased." This was followed by another participant, who questioned the validity of the union's information, "I find it difficult to accept that all the teachers are negative about the school development projects. How does the union know?"

These findings indicate facilitation and leading the discussions are critical to advance the discussion when it comes to addressing and contributing to a deeper understanding of how situated problems must be seen and analyzed in relation to the socio-cultural context in which they occur (Engeström, 1987, 2001). As such, to contribute to learning, facilitation approaches should encourage participants to utilize the kinds of actions and resources for performing "informed contextual analysis" when working on problem situations presented to them by cases.

Principals' Experiences and Theory as Analytical Reflective Strategies

The activation of a case starts when the participants begin to retrieve the information collected in it. Still, as Scott et al. (2005) stated, to use this information in sensemaking and problem solving (Weick, 1995), people must actively work with the elements of a case—its causes, resources, limitations and actions—in seeking potential outcomes. The findings from our analysis show a challenge in case-based instruction is improving the quality of the sensemaking process. Our experiences (Vennebo & Aas, 2019, 2020a) have indicated there is a strong link between the university teachers' facilitation of the case discussion and sensemaking based on theoretical analyses and explorations, rather than sensemaking based on leadership experiences alone. Those leading the group discussions using the conceptual model (with questions) as a scaffolding strategy demonstrated a more systematic examination by using the questions about the contextual components, which helped to illuminate how the challenges in Blueberry

School were related to the school's rules and norms, the actors in the school community and, especially, the distribution of work tasks and responsibilities (Engeström, 1987). In the following example, we can see how Christine, who led the discussion, draws on the contextual components when she summarized the viewpoints in step 2 of the discussion trajectory:

So far, I have heard that two of you have been critical of the union's understanding of the rules that define the relationship between the principal and the teachers. That seems to be a challenge. Furthermore, several of you have argued that there are several actors in the school community who are positive about two school projects and that we might need to investigate the complaints from the union in order to understand the extent of the resistance. Finally, three of you have talked about the teachers' work tasks and the possibility of looking at possible adjustments to the project.

The data exemplify how the principals' suggested responses encompassed various viewpoints and arguments through which tensions inherent in the context of the development work were provoked and displayed. The tensions surfacing during the discussions can not only be seen as disagreements between participants but also as premised upon the contextual conditions in which the development work is situated (Engeström, 1987). Furthermore, this illustrates why case analysis should be based on analytical strategies able to provide leader cognition. Mumford et al. (2012) argued that attempts to develop leaders' cognitive skills are considered critical when leaders must address crisis situations. In this study, we have shown how leaders' cognitive skills seem to be critical and might develop, improve, and help leaders to think about when they have to understand and create solutions to complex problem situations through the use of analytical strategies underpinned by theory. One of the participants expressed the observed development in this way: "It was confusing to be without solutions when the discussion started. However, at the end of the discussion, I could see that the investigation of the problem led to better solutions."

These findings indicate how the use of analytical strategies is underpinned by model theoretical strategies—in this case, how tensions inherent in the surfacing problem situations (Engeström, 2001) can be examined, understood and acted on through coherent and reasoned responses able to foster real learning (Scribner & Donaldson, 2001).

Linking the Case to Everyday Life and Piloting Leadership Strategies

Kolodner (1997) suggested frameworks used to structure or organize cases in leadership education should be capable of being adapted by leaders for use in real-world settings. In the feedback from the students in the study, the learning appeared to be mostly related to the case content. In other words, the case discussion provided knowledge on how to handle the leadership challenges discussed, in this case, accountability and the possible implications for leadership. This was exemplified by one of the participants, who said: "I think if I was faced with this challenge, I would go back to my deputy heads first and ask for advice. "Now that I have to address the challenge, what

are you thinking now?" I think that is the first thing I would do." Hence, we realized case application also includes questions related to the organization of the case, especially questions about different facilitation approaches.

As leading professional group discussions is critical in leading change processes in schools and includes handling problematic situations, for fostering leadership learning, we took the organization a step further by linking case-based instruction in the program to the participants' real-work settings. We asked the participants to lead a discussion in their schools using the conceptual model as scaffolding under the observation of a fellow student. The students reported leading group discussions in their own schools as being difficult, especially when creating shared understandings of the problems at hand and building collective commitments, which are essential for improving teaching and learning practices. However, they also experienced support from the conceptual model with its helpful questions in their leadership tasks. This is one example of how principals participating in a formal leadership program can enhance important leadership skills and foster leadership learning at the intersection of case-based instruction and authentic learning situations in their own school contexts. Additionally, it is also an example of how university teachers can use the participants' experiences in their own research with the aim of developing and improving case-based instruction to promote leadership learning.

Conclusions and Implications

In this article, we have investigated how case-based instruction can promote leadership learning when used in school leadership programs. Empirically, the article is rooted in the Norwegian National Leadership Program, where case-based instruction is used as a learning method. The findings demonstrated case-based instruction has promising possibilities in terms of professional learning for principals. However, the success of case-based instruction depends on certain key elements.

First, the case content should be based on central leadership challenges in principals' everyday lives. Topics reflecting authentic practice make it easier for the participants to identify with and reflect on the problem to be discussed. Second, the organization of the case depends on different facilitation approaches. A structure for leading case discussions to enhance the participants' cognitive skills seems to be a prerequisite to the use of theory, especially when it comes to improving skills related to analyzing and exploring the complexities of problem situations before finding solutions. In fact, we argue working and discussing together in these manners also has the potential to strengthen the participants' capacity for facilitating the development of and leading professional learning communities in their schools. Third, the case analysis should be based on analytical strategies able to provide leader cognition. Such strategies should include the exploration and exploitation of principals' experiences of leadership and relevant theoretical knowledge. Finally, case application should be linked to the principals' everyday lives and combined with piloting leadership strategies. The obligation of piloting specific leadership practices, for example, in terms of leading discussions, can improve the participants' reflection and leadership learning.

The systematic analysis of a specific case, as demonstrated in this study, illustrates how every problem is situated in a particular context; thus, the systemic contextual conditions to be considered and reflected on are almost the same for every school. We suggest more empirical research on case-based instruction in practice is needed to enhance our knowledge of applying case-based instruction in leadership programs, especially related to case content, case organization, **and facilitation**, case analysis and case application. In particular, the potential to link case-based instruction in leadership programs to authentic learning situations in the leaders' school contexts, as our study exemplifies, needs to be investigated further to elucidate how case-based instruction can contribute to leadership learning.

Appendix A

The School Case Narrative: Blueberry School

Blueberry School is a combined primary and secondary school with 548 students, 57 teachers and 24 assistants. The leadership team consists of the principal and three designated leaders who head the teaching teams (grades 1–4, grades 5–7, and grades 8–10). Three years ago, it was decided that the secondary school should merge with the new primary school. A newly appointed principal has been leading the school for 2 years, and the school is waiting for new buildings to be constructed because the classrooms are located on different sites. Given the poor student performance, change is needed. The principal has stated that the teachers in grades 5 to 7 have a willingness to change, while the teachers working in grades 8 to 10 are satisfied with their instruction and do not want to make changes. In the National Leadership Program, groups of principals were invited to discuss the following three leadership challenges related to the Blueberry School case narrative—*students' test results*, *criticism from teachers* and *the expectations of the superintendent and politicians*—and how they, in the position of the Blueberry School principal, would act on the challenges.

Students' Test Results

In a meeting with the superintendent, the principal was confronted with the students' performance results, which were lower than expected, especially in grades 8 to 10. Additionally, the superintendent received two phone calls from parents with complaints about bullying. The principal was concerned about the situation and had to prepare an action plan for the next meeting with the superintendent.

Criticism from Teachers

The principal initiated two development projects, one to improve education in mathematics and the other to improve teacher leadership. Project groups presented their specific plans for the work in public meetings, and then the work started. Following this, the principal received a letter from the teachers' union outlining many of the

complaints from the teachers. The union maintains that motivation has dropped, that teachers feel that the two projects are moving too fast, and that the development plan must be revised.

Expectations of the Superintendent and Politicians

After 6 months, politicians at the municipality level became fascinated by a TV program featuring a “super” teacher. They engaged this teacher to support the principals in all the schools in the municipality in their development projects. The principal of Blueberry School thought this was an excellent idea because it would assist him in leading the change process if he could be part of a joint project at the district level. He had already indicated that he would participate. Furthermore, he wanted to participate in another development program.

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