Leveraging situated strategies in research–practice partnerships: Participatory dialogue in a Norwegian school

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A B S T R A C T

Research–practice partnerships (RPPs) have been embraced as a way to increase the relevance of educational research for practice. RPPs typically focus on existing problems of practice and require researchers and practitioners to collaborate. However, RPPs are likely to operate differently across cultural contexts, and little is known about the contextually situated strategies researchers and practitioners in partnerships use to address problems in practice. This case study draws on data from a Norwegian RPP to outline one such strategy, participatory dialogue (PD). We locate PD in sociocultural theory as an instance of boundary crossing. PD is shown to be a culturally embedded multipronged tool for practitioners, readily usable for numerous purposes. However, leveraging situated strategies such as PD does not replace other strategies in RPPs; instead, situated strategies complement, enable, and enhance efforts to solve problems and build trust. We discuss the implications of leveraging situated strategies such as PD and its implications for RPPs.

1. Introduction

Research–practice partnerships (RPPs) have been embraced as a way to increase the relevance of educational research for practice (Lai, McNaughton, Jesson, & Wilson, 2020; Snow, 2015a, 2015b). Such partnerships typically focus on existing problems of practice and require researchers and practitioners to collaborate (Penuel & Gallagher, 2017; Snow, 2016). However, these partnerships are likely to operate differently across cultural contexts because of the variability between contexts. Variability is inherent in in all levels of education: Teachers' professional choices, the degree of specification in curricula and lesson plans, and schools' physical and social resources all contribute to variability (Lai et al., 2020, p. 2). When educational interventions such as RPPs cross contexts, variability takes on special significance. If contextual variability is inherent in all levels of an education system, efforts should be made to ensure that this variability is properly understood as a set of challenges to the partnership and as a potential reservoir of valuable resources. Therefore, understanding how specific cultural traits affect the nature of RPPs requires in-depth study at different sites and in different cultures. In particular, little is known about the contextually situated strategies researchers and practitioners in partnerships use to address problems in practice (Coburn & Penuel, 2016).

To outline one such strategy, participatory dialogue (PD), this empirical case study draws on data from a Norwegian RPP. PD is a set of dialogical practices used in the Nordic countries for building mutual understanding and trust, enabling diverse individuals to think and fully participate in making decisions together (Hemmati & United Nations, 2007). As PD is often used in the Nordic countries to engage stakeholders in shared problem-solving and evaluation, we aim to explore how participants in an RPP leverage PD as part of their repertoire of culturally situated practices. By leveraged, we mean exploiting existing strategies or cultural practices to realize the goals of a partnership. For example, participants may have experience in specific ways of solving problems or making decisions. Such existing ways of working may then be used to establish a partnership to avoid introducing new and unfamiliar routines and to reduce time spent on establishing relations or protocols for running the partnership. The following research question guided this inquiry: How can the situated strategy of PD be leveraged in a research–practice partnership?

In the literature review, we present participatory dialogue as a strategy for ensuring broad participation in education and other civic matters and then discuss cultural traits specific to the context of the education system in the Nordic countries. Finally, we situate participatory dialogue in sociocultural theory as an instance of boundary crossing. We then use this framework to understand the role of participatory dialogue in a case study of an RPP in a Norwegian upper

secondary school. Finally, we discuss the implications of leveraging situated strategies and the implications for RPPs. Specifically, we show how situated strategies such as PD can complement and enhance other purposes in partnerships. In doing so, we acknowledge the importance of exploring and leveraging existing strategies rather than searching elsewhere for best practice solutions to implement.

2. Literature review

RPPs are not a strictly defined category. The notion of "partnerships" may refer to a range of undertakings, including consulting agreements and use of schools as sites for testing innovations developed at universities or for teacher education and internships (Coburn & Penuel, 2016). Nevertheless, Snow (2015a, 2015b) argued that RPPs should strive to start with urgent problems faced in practice rather than established gaps in knowledge. Similarly, Penuel and Gallagher (2017), p. 21) argued that RPPs are characterized by (a) joint negotiation of problems faced in practice, (b) an understanding that is arrived at through collaboration, and (c) stories about how partners' priorities have changed as a result of renegotiating the focus of joint work or practical problems. This notion excludes RPPs in which (a) researchers are hired as experts or vendors, and educational leaders determine the goals and terms of the relationship, as well as (b) RPPs in which researchers utilize schools or districts as sites to conduct studies with predefined problems.

In RPPs, building and maintaining relationships is the core activity, and participants may be required to engage in extensive negotiation to locate themselves within the organization, compare themselves to other organizations, and refer to collective histories to make sense of the roles available (Farrell, Harrison, & Coburn, 2019). However, although RPPs typically are characterized by a commitment to mutualism (i.e., sustained interaction that benefits researchers and practitioners) and focus on place-based problems, local policies and practices, or the development of local capacity, the strategies employed may vary considerably. U.S. examples range from data-sharing agreements and using indicators to identify students at risk of dropping out to negotiating the focus of joint work and structuring codesign processes (Coburn, Penuel, & Geil, 2013). Furthermore, although research has been conducted on enabling and constraining factors in RPPs, less attention has been paid to *how* different conditions influence RPP efforts (Farrell et al., 2019).

Currently, little is known about the strategies researchers and practitioners in partnerships use to address problems faced in practice (Coburn & Penuel, 2016). Furthermore, because much of the seminal work on RPPs has been produced in the U.S. context, fewer studies are available from countries with other degrees of professional autonomy, centralized control, or levels of social trust (Lai et al., 2020, p. 11). Such contexts require a degree of contextual sensibility and local knowledge when partnerships are established. For example, RPPs in the U.S. context employ intentional strategies structured by protocols (e.g., protocols for feedback interactions between principals and new teachers), with reliability checks to ensure adherence to the prescribed interaction (Coburn et al., 2013). Although prescription may ensure reliability and fidelity in implementation, this strategy may not be desirable or possible in other contexts. Norway, for example, is characterized by the Organisation for Economic Co-operation and Development (OECD) as a "high trust, low accountability" educational culture: Teachers enjoy a great deal of professional autonomy, and there is little control of actual classroom practice or education policy implementation suggesting a conflict of interest between the need for trust in the system and the need for accountability (Hopfenbeck, Tolo, Florez, & El Masri, 2013). Consequently, strategies used in RPPs outside the U.S. context, especially in cultures where policy implementation or accountability measures are considerably different, merit investigation.

3. Participatory dialogue: A strategy for building trust and understanding

PD is a way of building mutual understanding and trust, enabling diverse individuals to think and fully participate in making decisions together (Antikainen, 2006; Hemmati & United Nations, 2007). PD can be used to enable different stakeholder groups to exchange perspectives, stimulate thoughtful discussion, and understand strategies for solving complex organizational challenges (O'Reilly-de Brún et al., 2015). The United Nations' definition emphasizes the integrative role of PD in diverse communities:

> Participatory dialogue processes promote the values and principles of social integration through employing the strategies of inclusion, participation and justice that produce the foundation of the active and meaningful engagement of all citizens in building their common future.. . . Through the dialogue process, diverse persons, groups or peoples find commonalities, similarities and complementarities that can become the basis for mutual understanding and joint action. Whether the diversity is based on ethnicity, gender, age, disability, nationality or any other difference, the process of building mutual understanding and joint action is the manifestation of social integration. The building of mutual understanding and joint action involves communication and, indeed, increasingly frequent, regular and peaceful dialogic conversations—beyond debate, discussion or negotiation. (Hemmati & United Nations, 2007, pp. 61–62)

The role of dialogue serves as a strategy for ensuring openness and transparency, as well as for increasing the likelihood of implementation by involving stakeholders in decision-making processes.

As conceptualized by Hemmati and the United Nations (2007), PD comprises a range of activities. For example, some types of PD are purposefully directed toward building trusting relations and understanding the perspectives of stakeholders in a conflict. Such PDs may be organized around rituals promoting listening and sharing without focusing on specific action-oriented outcomes. Other types include reflective dialogue and appreciative inquiry, which are applied to question difficult issues and experiences, or to engage in intensive exploratory discussion to better understand a phenomenon. Some PD formats have been developed as part of consulting or research activities. Others have been derived from culturally specific practices, such as indigenous approaches to building relationships, and may include creative, athletic, spiritual, or religious components (Hemmati & United Nations, 2007).

Furthermore, PD can be used for various purposes. It has been employed to increase stakeholder participation and create shared meaning in a range of contexts, such as healthcare (O'Reilly-de Brún et al., 2015), museums (Stuedahl, Skåtun, Lefkaditou, & Messenbrink, 2020), and public engagement with science (Balázs, Horváth, & Pataki, 2020). For example, workplace managers in the Nordic countries often demonstrate an improvement-oriented attitude and engage safety representatives, unions, and other stakeholders in "work environment dialogues" to manage health and safety issues (Frick, 2013). Similarly, dialogue is a common ingredient in Nordic school–university partnerships, serving to understand practice, improve professional development, or bring about change (Rönnerman, Furu, & Salo, 2008). Such processes can be considered PD in that they share multiple goals of trust-building, consensus-building, and decision-making.

In sociocultural learning theory, dialogue is often portrayed as a powerful sensemaking tool comprising negotiation, engagement, and reflection as key aspects of learning and knowing (Wenger, 1998). Key PD principles similarly include local ownership, empowerment, creativity, and network-building. For example, PDs may involve creating multistakeholder action plan groups, identifying champions with leadership capabilities, linking facilitators to action plans, and ensuring that stakeholder groups select their own representatives (Hemmati & United

Nations, 2007, p. 81).

Certain discussion moves have been shown to foster participation. For example, in many educational settings, *revoicing* is a discussion move where the teacher re-utters a contribution made by another participant in the discussion (O'Connor & Michaels, 1996). In the following example, a teacher (N) revoices a student's (U) utterance while discussing a writing assignment:

> 38 U: Yeah. /// And if I write a letter, I need to start by the name.
> 39 *[Points to greeting.]* I have to indent.
> 40 N: Oh, where you started the first sentence, you wanted to indent.
> (McVee & Pearson, 2003, p. 61)

Revoicing can serve many purposes, such as creating a framework for participation, assigning roles and responsibilities, or providing access to discursive practices required for complex thinking and problem solving in groups (O'Connor & Michaels, 1996). In the example above, revoicing scaffolds student reflection through interaction with a written artifact and teacher discourse (McVee & Pearson, 2003).

The value attributed to participation in dialogue varies between educational cultures (e.g., Western constructivist classrooms and Confucian heritage learning cultures; Ma, 2008). Consequently, what counts as discussion moves in PD is a highly contextual phenomenon. PD can take many forms based on certain emerging principles applied in a flexible manner to ensure that it is contextually appropriate and provides ownership of the process for all stakeholders (Hemmati & United Nations, 2007, p. xii). PD is therefore not a prescribed set of practices but an umbrella term for processes that bring together diverse social groups in a respectful and considerate way to integrate the interests of multiple stakeholders, build consensus, find solutions, collaborate on implementation, or agree on joint monitoring and evaluation (Hemmati & United Nations, 2007, p. 65).

3.1. The role of dialogue in the Nordic countries

Processes such as PD can be understood as part of the egalitarian philosophy underpinning Nordic welfare states (Blossing, Imsen, & Moos, 2014). That is, values and ideologies are anchored in culturally situated ways of behaving in everyday situations. For example, vocational education and training are permeated by partnership models founded on trust and an egalitarianist attitude. Several Nordic countries offer vocational training in schools as well as apprenticeship training, reinforcing strong partnerships between school and work (Antikainen, 2006). Norway and Sweden foster cross-sector collaboration between industry and education to improve the reputation and quality of vocational education and training and meet industries' need for skilled workers (Rusten & Hermelin, 2017). PD is a common strategy in such collaborative structures and helps support common goals and maintain relations between stakeholders. In sum, egalitarian philosophies and practical solutions are highly interwoven in the system and manifest through participatory dialogue.

The strong organizational connection between schools and the vocational training system further supports egalitarian ideas, suggesting that academic and vocational pathways are of equal value and importance. The high trust, low accountability culture of Norwegian schools (Hopfenbeck et al., 2013) requires extensive dialogue among school district administrators, school leaders, teacher unions, and student representatives. Within the larger context of Nordic school culture, dialogic approaches are used extensively to foster inclusivity and empowerment, and to engage all stakeholders in deliberation and decision-making. Ideals of citizenship are reflected in national curricula as teaching "*about, for* and *through* democracy and active participation" (Arnesen & Lundahl, 2006, p. 294 [italics in the original]). Students are positioned as active participants in learning processes located within high-quality and publicly funded comprehensive education systems (Mejding & Roe, 2006). Consequently, the prevalence of participation

and collaboration supports the development of social cohesion and trust in the Nordic countries.

3.2. Participatory dialogues as a boundary-crossing strategy

In this paper, we situate our understanding of PD within the theoretical context of boundary crossing. Theories of practice and situated learning (Engeström, Engeström, & Kärkkäinen, 1997; Engeström, 2008; Star, 2010; Wenger, 1998) explore how boundaries (i.e., the real or imagined limits of a domain or an organization) represent potential for learning. The term "boundary crossing" indicates how professionals must enter unfamiliar landscapes (Suchman, 1993) and negotiate knowledge from different contexts (Engeström, Engeström, & Kärkkäinen, 1995). As PD often involves stakeholders from multiple fields or organizations, it is a strategy that requires boundary crossing. For example, boundary crossing involves dialogical and creative processes of *perspective-making* and *perspective-taking* (Akkerman & Bakker, 2011). Perspective-making involves making one's understanding and knowledge of a particular issue explicit (Boland & Tenkasi, 1995). Conversely, perspective-taking involves making visible the unique thought worlds of different communities of knowing so that they become visible and accessible to others (Boland & Tenkasi, 1995). A lack of perspective-taking can result in misunderstandings, thus negatively affecting one's perception and practice of negotiation and introducing a risk of major miscommunication (Tan, Härtel, Panipucci, & Strybosch, 2005). PD as an instance of boundary crossing similarly requires dynamic and recursive processes of explicating knowledge across different communities to reach shared understandings, achieve common goals, or facilitate the development of more robust communities.

In educational contexts, several studies have investigated the boundaries between teacher education and teaching practice in schools (Gorodetsky & Barak, 2008), emphasizing the importance of boundary crossing for identifying and describing differences between practices, and thus, learning something new about them (Williams & Wake, 2007). For example, professional development for teachers means crossing personal, institutional, and disciplinary boundaries (Akkerman & Bakker, 2011). In particular, schools that provide vocational education and training are often examined using concepts drawn from boundary-crossing theory (Konkola, Tuomi-Gröhn, Lambert, & Ludvigsen, 2007; Vähäsantanen, Saarinen, & Eteläpelto, 2009). In upper secondary schools that provide vocational training, teaching and learning take place at different sites (e.g., classrooms, restaurant kitchens, or auto repair shops). This requires teachers to collaborate with nonteaching staff in public institutions or private businesses on topics such as the development of specific vocational skills and knowledge or on broader educational goals, such as human development and growth. Teachers and nonteaching staff may have differing opinions, perspectives, or value sets, and may prioritize differently. Therefore, PD is an especially important strategy for teachers in such schools. Earl and Timperley (2009) argued that conversations structured to make sense of evidence can result in real changes in student learning, and that such a conversation "sets the stage for new knowledge to emerge as the participants encounter new ideas or discover that ideas that they have held as 'truth' do not hold up under scrutiny" (p. 2). PD serves a similar purpose in the Nordic context in that it offers an opportunity to share and make sense of evidence. On this basis, we frame PD as an example of a strategy for boundary crossing.

Research–practice partnerships can entail a considerable number of boundary-crossing activities, extending beyond mere translation of research to navigating complex institutional and professional roles. Successful attempts at mobilizing existing knowledge typically involve (a) some form of mediation (e.g., via a third party, mediators, or brokers) and (b) boundary-crossing activities (connective actions undertaken by researchers and practitioners; Malin & Brown, 2019). The nature of this work is highly dependent on the sociocultural conditions that frame the partnership. External factors (e.g., accountability

policies) and internal factors (e.g., the degree of professional collaboration) influence partnerships and may cause considerable variation in processes and outcomes. Understanding and appreciating contextual aspects through deep engagement with communities, therefore, is crucial.

This study explores how the situated strategy of PD is leveraged in a research–practice partnership. We argue that the lens of boundary-crossing theory can offer a way of understanding PD as a culturally specific and situated practice. For example, PD may introduce new elements from one community of practice to another, especially when boundary crossers, or "brokers" (Wenger, 1998), traverse institutional boundaries to enter into dialogue with others. Furthermore, not only people but also objects can play an essential role in crossing boundaries (Akkerman & Bakker, 2011). These objects, referred to as "boundary objects" (Star & Griesemer, 1989) in boundary-crossing theory, often constitute an important part of PD, as they may lead to the creation of new tools. In short, PD can be viewed as a set of boundary-crossing practices providing opportunities to realize and explicate differences between stakeholders' practices (Akkerman & Bakker, 2011).

In the case of PD, consensus-building or joint decision-making across cultural or institutional boundaries is often a priority. Such processes may require the formation of new practices or going into unfamiliar territories. Boundaries may be challenging, but they may also provide opportunities for innovation and renewal, as crossing boundaries forces participants to reflect on their practices and assumptions, which can contribute to deeper learning (Wenger, McDermott, & Snyder, 2002). Therefore, we view PD as one example of an existing strategy within a community that can be leveraged in a research–practice partnership to build consensus, make decisions, or explore new ways of working. We treat PD not as a political tool sanctioned by the international community or as part of a research methodology but as a situated strategy belonging to the community in question: a culturally and contextually authentic form of communication serving to support decision-making and consensus-building in groups, facilitate processes of co-construction of knowledge, codesign plans, and perform pedagogical functions (see Paulsen & Spratt, 2020). In the school examined in this study, the widespread use of PD shapes how this particular school community knows and comes to know their practice and partners through instances of boundary crossing. We argue that existing strategies can be leveraged to enhance collaboration regarding problems of practice in RPPs.

4. Methods

4.1. Research design overview

Case studies afford in-depth study of theoretical and practical issues drawn from concrete and context-dependent knowledge (Flyvbjerg, 2006). In this case study, we draw on two data sources: (a) semistructured group interviews with teachers and (b) reports written by teacher groups. This study is a secondary analysis of an existing data set from a larger RPP project. Our rationale for this research design is our desire to investigate teachers' situated strategies and experiences with collaboration across sites and organizational boundaries.

4.2. Background: a Norwegian research–practice partnership

This study is situated within the context of an RPP formed by a Norwegian county municipality governing 19 upper secondary schools and a university to establish a partnership lasting 2 years. The purpose of the partnership was to develop teacher assessment literacy through inquiry-based activities over a 2-year period. In establishing the partnership, we drew on principles from Snow (2015a, 2015b), who argued that such relationships should be committed to solving urgent problems of practice and attending to innovations and their implementation. This RPP emphasized school-based professional development, which implies

that the school, including management and all participants in the partnership, actively participated in the development process at the workplace. Additionally, the university offered a voluntary further education training program in assessment and research and development methodology, awarding participants credits toward a master's degree upon completion. The teachers collaborated in groups of three or four. Given the multisite nature of vocational education and training, we were aware that any changes in pedagogical practices in school could potentially affect collaboration with the businesses in which part of the students' training took place.

As part of the larger project, interviews were carried out by several members of the research team. In addition, reports were written by teachers as part of a further education program. The purpose of the reports was to (a) further develop the teachers' assessment literacy, and (b) build capacity for research-informed inquiry in practice. In total, 20 teachers were interviewed as part of seven semistructured group interviews. Eight reports written by the teacher groups were analyzed for this study.

Both authors were part of a team of 12 university researchers supporting the larger RPP project focused on developing teachers' assessment literacy in 19 Norwegian upper secondary schools. Both authors are experienced professional development providers in secondary schools and have extensive experience as researchers and consultants in the field of educational assessment. The first author was responsible for the education program. The second author was the principal investigator of the project.

4.3. Study participants

The school in question has 60 teachers and approximately 250 students. It offers vocational programs such as Transport and Logistics, Electrical Installation and Maintenance, and Food and Beverages. The section of the school offering vocational education and training programs is considered well-resourced with tools and machinery, training areas for students, and highly qualified teachers. In our initial interaction with the school leaders and the teachers, we noted that they expressed pride in working in the vocational education and training sector. They also expressed the need for constant improvement in their pedagogical practice. They expected the RPP to be demanding but also useful for improving practice. We interpreted such comments as examples of reflective practice. However, based on experiences with the shortcomings of previous professional development initiatives, some teachers expressed a certain skepticism toward the RPP.

Ethical approval for data collection was obtained from Norwegian Data Protection Services. Data were collected at one rural Norwegian school that participated in the RPP. The partnership was initiated between the district administration and the university researchers and was based on data from surveys showing a need to improve teachers' assessment literacy and student participation in formative assessment practices, such as self-assessment. Teachers were recruited for interviews by the school leaders, who assembled groups of teachers with similar backgrounds (i.e., Science, Technology, Engineering, or Mathematics [STEM], language, or vocational subjects) and with varying degrees of teacher education and teaching experience. They were informed that information from the interviews would be kept confidential, and that such information would not be used for evaluative purposes by the researchers.

4.4. Data collection

The interview questions were relatively open and were inspired by research syntheses of teacher assessment literacy (Xu & Brown, 2016) and frameworks for evaluating professional development (Guskey, 2000). The questions focused on two themes: (a) teachers' previous and present experiences with professional development and capacity-building efforts, and (b) the previous and present assessment

culture in the school. For example, teachers were asked about compromises related to assessment, relations between assessment and learning, and emotions and assessor identities related to their assessment practices. Furthermore, teachers were asked to discuss their school's capacity for change and the roles of teachers, school leaders, district administrators, and researchers in the project. Interviews lasted approximately 60 min, were recorded electronically, and were transcribed verbatim (see Table 1 for details).

The interviews included questions related to the teachers' experiences with assessment (e.g., "How do you make decisions when assessing?", "What emotions are related to assessment?") and their perceptions of the school's capacity for participating in the partnership (e.g., "How do you understand the phrase 'capacity for pedagogical development'?" and "How would you evaluate the school's capacity?"). Additionally, in the interviews conducted after the partnership formally ended, we included questions probing the school's practices for sharing knowledge (e.g., "How did you share knowledge and experiences during the project?" and "How did you involve students during the partnership?"). School leaders were not given access to the data set, but the main insights were presented to them verbally in an anonymized and edited version.

We collected all reports written by the teacher groups at the school ($N = 8$). The reports varied from 4,000–6,000 words and provided extensive accounts of teachers' experiences, reflections, and change initiatives during the partnership.

4.5. Analysis

In the first coding phase, we read and reread the data set to familiarize ourselves with the content. Despite the diverse topics and contexts in the reports (e.g., ensuring appropriate workplace behaviors among students in practicums, creating rubrics to support self-assessment, or increasing students' awareness of safety concerns or effective work techniques), we noticed that most teacher groups approached these problems of practice with similar strategies: involving actors in dialogues and encouraging all stakeholders to share their thoughts and ideas in more or less formal ways. For example, in the interviews, teachers commented on how teachers in academic disciplines collaborated with vocational teachers and how they learned from each other, or how collaborating with university researchers provided direction for their line of inquiry in the partnership. Similarly, the frequent mention of dialogues, discussions, and informal talk indicated that we should explore the role of participation in teacher learning and reflection.

We noted how leaders encouraged and engaged in extensive

Table 1
Interview Participants.

Interview	Participants	Program affiliation	Curriculum areas	Duration
1	Three male teachers	Secondary education	Norwegian English Technical Services and Industrial Production	50 min 45 s
2	Two male teachers and one female teacher	Secondary education	Norwegian English Electronics	51 min 28 s
3	Two male teachers and one female teacher	Secondary education	Norwegian Social Studies Physical Education Food and Beverages	31 min 41 s
4	Two male teachers and one female teacher	Tertiary vocational education	Electronics STEM Food and Beverages	27 min 4 s

dialogues with each other and with teachers in meetings. Such dialogues were always respectful, even if views differed. The teachers commented on this gesture in the interviews: "The school administration has done a great job making everyone participate". However, the teachers also noted that administrators had to be explicit about the need for participation and dialogue: "They need to signal from the very top that this is what we're doing. There was no way of misunderstanding their message." Such comments led us to theorize the nature of dialogue in the school and dialogue's combined role of solving organizational problems, involving stakeholders, and building trust and motivation. These traits aligned with the description of PD in the literature.

Uncovering the role of PD in teacher collaboration led us to focus on how teachers engaged in dialogue, either as part of normal practice or as a strategic action to achieve their goals. Therefore, in the second coding phase, we coded the data sets using directed content analysis (Hsieh & Shannon, 2005), drawing on a conceptualization of RPPs as joint boundary work (Penuel, Allen, Coburn, & Farrell, 2015). For example, we identified sections of the data set containing words like "limits" or "boundaries," examples of collaboration across departments, or comparisons between different buildings or domains (e.g., phrases like "in the classroom" versus "down in the kitchen") to identify instances of joint boundary work. We resolved any intercoder disagreements by consensus before continuing. We found that the teachers leveraged PD for three interrelated purposes: to develop their professional knowledge base of assessment, to manage the social aspects of teaching, and to do boundary work with actors outside the school building.

It was not always easy to distinguish formal dialogue (e.g., meetings explicitly hosted by teachers to facilitate shared understanding with stakeholders outside the school) from occasional talk (e.g., informal dialogues across school departments about everyday practice). Furthermore, as teachers used dialogue almost intuitively, they did not conceptualize even the more formal dialogues as PD. Because of this, we selected instances of dialogue mentioned explicitly by the teachers in interviews and reports. We focus on dialogues aiming to navigate boundary-crossing issues, either as part of the existing dialogic culture in the school or as part of the efforts in the RPP.

5. Findings

5.1. A borderless school

The egalitarian atmosphere in this school was apparent from the initial discussions with practitioners. We noted that during the interviews several teachers enthusiastically praised their school culture as an open space without the silo issues that often characterize upper secondary schools:

> The collaborative atmosphere that we already have makes it easier to implement a project like this one. We collaborate all the time, so it's not unnatural for us to work like this—in all the departments, in the school culture. Some of us started teaching here just a few years ago, and we noticed that there are no borders between anything, really. We are borderless.

This example illustrates the highly dialogic culture in this particular school. In the research literature, secondary schools have long been criticized for their "balkanized" cultures consisting of specialized and insulated subgroups of teachers with high permanence and clear boundaries, and where teachers strongly identify with subgroups that act as sources of identity and meaning, or even function as "repositories of self-interest" (Hargreaves & Macmillan, 1992, p. 5). The teachers' description of a "borderless" work environment, therefore, forms a powerful counternarrative to conventional ways of portraying secondary schools. The description of a "collaborative atmosphere" was reinforced in our meetings with staff and leaders and suggested that the school was permeated by a dialogic stance reminiscent of PD.

In the initial phase of establishing the partnership, the teacher groups identified typical problems of practice they wanted to approach. For example, 2-week workplace practicums are a common practice in Norwegian vocational education. Students are given first-hand experience with businesses or public institutions, such as hospitals or childcare organizations. Although the students are assigned mentors to supervise learning, the responsibility for interpretation and decision-making associated with summative assessment lies with the teachers at the school. However, teachers have limited access to students during the practicum period and must often rely on assessment evidence collected by mentors, who do not have teacher education or deep knowledge of the curriculum objectives. This problem was well-known among many vocational teachers, and they used the opportunity afforded by this project to collaboratively redesign the process and share responsibility for assessment activities among teachers, students, and mentors. Focusing on this known problem emphasized the need for dialogue to ensure effective communication, mutual trust, and assessment integrity. This example shows how PD functioned as a boundary-crossing activity allowing for enhanced collaboration and distribution of responsibilities.

5.2. Using PD as a situated strategy

As the partnership evolved, we (the researchers) noted that the teachers seemed to prefer dialogue as a tool for a range of purposes, such as reflecting on practice, solving problems, or planning future directions for change in their teaching practices. For example, teachers mentioned using dialogue to clarify the steps in changing practices, developing a shared platform for discussing assessment and student participation across teacher teams, or clarifying differences between vocational and academic subjects. Teachers also conducted dialogues to enhance their understanding of assessment issues such as self- and peer assessment, and formative assessment.

Having participated in several professional development and partnership activities in the past, we were not surprised to see explicit demands for an impromptu enactment of dialogue. Nevertheless, the degree of professionality and taken-for-grantedness of the practice surprised us. For example, when a group of teachers in Technical Services and Industrial Production wanted to understand existing norms and expectations for workplace behavior in local businesses, the teachers conducted formal semistructured interviews and analyzed the interview data for common themes. The teachers identified desirable behavior (e.g., some businesses expressed that students should be perceptive and understand workplace norms without explicit instructions) and undesirable behavior (e.g., one business emphasized the need to avoid mobile phones at all times except lunch breaks). Much of the assessment work in the school consisted of written reports and emails to reduce travel time between schools and workplaces. However, the teachers were adamant about choosing a dialogic approach to problem-solving. Engaging in PD to understand other stakeholders' perspectives and needs was deemed necessary if practices were to change in a substantial way. In sum, it was clear to us that this school was saturated with dialogic practices, and that these approaches were highly valued.

Based on our experience as qualitative researchers in similar schools, the seeming naturalness of the practice warranted exploration. We intuited that inquiring into the underlying assumptions and normative expectations of the practice could yield a deeper understanding of the nature of the partnership. Furthermore, understanding this instance of PD could enable us to leverage similar strategies in other schools to do boundary work.

The data analysis confirmed our initial impression. First, teachers used PD to develop their assessment knowledge bases, including for interpreting assessment evidence and supporting assessment decision-making among teachers. For example, some teachers used intraschool PD primarily as a moderation tool to ensure a shared understanding of assessment tasks and criteria as well as to involve students in the assessment process:

> I used to be a bit of a dictator before. I think I've gotten better at making the students participate in setting objectives and finding the right approaches to assignments. I ask them how they would like to be assessed. For example, in social science, I ask them whether they would like to have an oral presentation, a traditional test, a written assignment like an article, or a dialogue. It's useful. I feel that they need to become more aware of what kind of assessments are purposeful.

Teachers explicitly drew upon Vygotskyan theories regarding the role of dialogue and the zone of proximal development in learning when writing their reports, noting the interplay between written assessment tools (e.g., checklists and rubrics) and student engagement in classroom discussions. A group of carpentry teachers used PD to increase students' understanding of assessment standards so that the students could develop an intuitive understanding of and a holistic mindset regarding carpentry processes in the business sector. This included using PD to set shared expectations for workplace behavior, as well as finding ways to interpret student performance as evidence of educational achievement. One group described how they planned and implemented a performance task with a rubric to support students' self-assessment. Then, the teachers conducted an assessment dialogue with the students, modeling how one can ask questions about vocational content such as tool use, effective work techniques, and health and safety concerns. Finally, teachers interviewed the students about their experiences in assessment dialogue, including their reactions, understandings, and practical work. A group of teachers described the process as follows in their report:

> The process was quite slow to begin with. The students needed a lot of teacher support to create criteria for the task. However, when they got started, some of them became very active and needed to be managed to avoid having them overrunning the more passive students. So, professional teacher judgment was needed to manage the process and either accept or reject their suggestions.

Formal and informal dialogues were used to facilitate shared reflection, data collection, and analysis. Some teachers used PD to gather data on the impact of written teacher feedback on student learning. The teachers' written reports explicitly mentioned the knowledge-building purpose of PD, with one group stating that the relationship between assessment theory and practice was reinforced by the partnership:

> In this developmental work, it has been important to explore our practice, use theory to deepen our understanding, and focus on ourselves by reflecting together on who we can develop our assessment literacy. Through this work, our knowledge can be shared with our colleagues so that everyone can increase their knowledge of what assessment and feedback practices are the most useful for the students.

Teachers engaged in reflective practice, participated in community activities, and reconstructed assessors' identities, with an emphasis on the first two.

Second, teachers used PD to manage the social aspects of teaching. For example, they used dialogue to establish a safe learning environment in classrooms and vocational training areas and built relationships with students in their practicums and motivated them to work harder when they returned to the classroom. Teachers saw PD as a "shared platform" for discussing such matters:

> When you're working in different places and in different teams, it's important to have a shared platform if you want to discuss assessment and student participation. Even the teachers that didn't take the project that seriously have worked on it. Everyone did. I don't think that's happened in all the schools.

In addition, the teachers managed the social aspects of teaching

through assessment-specific activities, such as holding self-assessment dialogues between students, Mathematics teachers, and vocational teachers or involving students in discussions about assessment criteria and standard-setting. For example, one written assignment contained an elaborate description of how PD was used to broker assessment standards with businesses. This assignment included expectations for workplace behavior as well as ways to interpret student performance as evidence of educational achievement. A teacher stated:

> Close collaboration between the school and businesses is important, and we must listen to each other. This dialogue is important for student learning. Having a conversation with student, teacher, and workplace mentor early in the practicum is important to develop shared understandings.. . . We have a shared goal: highly qualified professionals.

Thus, the project and the program became an opportunity to leverage PD to work toward the shared goal with students and businesses.

Third, PD was used for boundary work involving diverse stakeholders within and outside the school environment. Within the school, teachers engaged in dialogues to learn about the various contexts through which students navigate in academic and vocational subjects. Some teachers engaged students in dialogues as part of their instruction to improve students' ability to appraise the quality of their own work in vocational contexts. For example, when students learned about building techniques in construction classes, teachers asked, "Would you pay for this yourself?" Teachers also involved stakeholders in PD to support the development of students' vocational skills and identities and to strengthen the shared understanding of assessment validity among teachers, students, and businesses. Furthermore, teachers interviewed workplace instructors and cocreated assessment criteria with students and instructors to ensure a shared understanding of the standards. Moreover, parents were involved in discussions about instructional decision-making to create shared understandings of the importance of education and establish shared goals for students' learning and development.

5.3. Leveraging existing strategies to develop the partnership

Participation in the research–practice partnership provided opportunities to share and reflect on schools' existing strategies for collaboration and development. One group noted that they leveraged dialogues to make sense of the project:

> We wouldn't have gotten anywhere without it. Initiating, providing direction, setting expectations and so on. We were a little disheartened to begin with, but then we started talking together. It's easier when you find something you are wondering about and really want to do. We decided to connect our inquiry with the work we're already doing. It was closely connected with our day-to-day practice, so even though it was extra work, we could integrate it with our other plans.

We interpret this as part of a larger process of becoming aware of the constraints and possibilities of a research–practice partnership as well as an example of how teachers in a collaborative culture leverage familiar practices to understand how such a partnership could benefit them. Additionally, PD required extensive perspective-taking and -making, serving to navigate the interests of the various stakeholders and build connections between the overall goals of the partnership and find creative solutions to local problems of practice. It was crucial for participants in the partnership to understand the link between PD as a cultural practice, the underlying values of egalitarianism and consensus-building, and the need for clear priorities at the leadership level. Teachers noted that, in general, capacity-building efforts were important for successful change. They appreciated the principal's interest in

the project.

A Food and Beverages teacher commented that the school's use of dialogue was unusual, and other upper secondary schools did not engage in dialogue in the same way: "We talk together across departments all the time. I've heard about schools where Language Arts teachers sit separated from Mathematics teachers and so on. Here, there's communication across departments all the time, every day" (interview 3). The existing use of PD encouraged the researchers to further develop the partnership by leveraging dialogue to build further capacity in the school community. This included discussing our findings with school leaders and teachers to increase awareness of the widespread use of the strategy, or finding new areas in which to use PD.

For some teachers, the experience of being interviewed about their use of PD increased their awareness of the role of dialogue: "The project has made us aware of the importance of dialogue. That's what it's all about. We talk together across the organization." For others, however, the partnership simply reinforced their existing positive experiences using PD: "We've been sitting together in the work room having our daily dialogues in the projects. We did that earlier, too. So that works well, I should say." Consequently, teachers became conscious of their existing PD strategy through participating in the RPP.

However, despite the widespread use of PD and the vision of the school as a "borderless" space, one group of teachers did not feel included in the partnership. They taught in a department that provides vocational technical college education, a tertiary education program that differs from upper secondary programs in several ways (e.g., instruction in this department is provided only on a part-time basis). Although the tertiary education teachers and the secondary school teachers worked in the same building, the outlier teachers' status as providers of higher education meant that they saw themselves as separate from the rest of the organization.

The teachers reported in the interview that they did not note any significant changes as a result of the project. The group had overall negative impressions of the project, the partnership with the university, and the academic work required to complete the formal education program. The written assignments and the interview yielded scant evidence of reflection, and the partnership did not contribute to increased boundary-crossing work. The teachers described their assessment practices as primarily summative and "old-fashioned." Although the wording suggests awareness of pedagogical practices, the teachers described their encounters with recent research literature as "new books, but the same old content." They did not appreciate dialogue via videoconferencing, suggesting that university researchers should spend more time engaged in face-to-face dialogue, particularly when discussing the requirements for academic tasks in formal education. Rather than engaging in dialogue, these outlier teachers withdrew into a position of insularity.

6. Discussion

Research–practice partnerships should acknowledge research and practice as two different sources of knowledge with equal value and importance (Snow, 2015a, 2015b). Furthermore, RPPs should acknowledge variability between contexts as a set of challenges and as a potential reservoir of valuable resources in educational settings. For example, although PD is widely used in the Nordic countries as an approach to shared decision-making and evaluation, PD is not universally successful in change efforts even within that culture, as shown at the microlevel by the outlier group.

It is likely that participants in RPPs will experience a certain level of friction. Although some may frame such reactions as counterproductive resistance to be overcome, the spirit of PD requires stakeholders to value perspectives different from their own and seek common ground in discussions. Outliers can enrich our understanding of an educational phenomenon in context, and can provide important information for research and policy development purposes ("Case Study Research in

Education, 2010). In this case, the outlier group is a powerful reminder that the establishment of an RPP requires stakeholders be mindful of differences and boundaries that may hinder the establishment and development of the partnership. This includes being aware of tensions and differences in practice contexts, suggesting that RPPs require extensive boundary crossing within and between institutions and knowledge domains. An approach includes aspects of PD might ensure that all stakeholders in such processes are listened to and included in decision-making so that multiple perspectives are integrated.

Wenger (1998) explicitly argued that to maintain the dynamism of communities of practice it is necessary to learn at the boundaries of a field. We believe situated strategies such as PD may be leveraged for joint boundary work. That is, PD may be used to engage with problematic aspects of variability (e.g., inequities in student outcomes or undesirable differences in learning environments), valued kinds of variability, and the research–practice divide. Penuel and Gallagher (2017) argued that boundary-spanners are critical because they help to translate the language of partnership participants to others outside the partnership. In this case, we found that the inherent cultural complexity in secondary schools requires teachers *within* the partnership and the school in question to serve as boundary-spanners so that the language used in the partnership is understood across departments. This requires all participants to develop awareness of specific local practices and the underlying cultural norms they relate to. Conceptualizing partnerships as joint work at boundaries does not alleviate tensions, but may support stakeholders in resolving conflicts across institutional borders as well as within research teams (Penuel et al., 2015).

Strategies such as PD may be especially beneficial in contexts where such dialogues are valued as a cultural trait. In this case, the integration of PD in Nordic culture meant that the strategy was used almost intuitively, rather than deliberately. This was exemplified by the preexisting culture of being a "borderless" school and the broader context being a "low accountability, high trust" context where practitioners enjoy considerable professional autonomy. In contexts where there is considerable tension between social groups, PD may be a source of empowerment for marginalized voices (Hemmati & United Nations, 2007, p. 95). However, in certain cultures, PD or similar strategies may be difficult to implement, undesirable for participants, or even detrimental to the development of a partnership. In both cases, extensive perspective-making and -taking are needed to evaluate the role of situated strategies and identify how—or if—a situated strategy can be leveraged in an RPP. For example, participatory research agenda-setting can bring different stakeholders together in activities to shape a shared problem space for future investigations (Balázs et al., 2020). Furthermore, PD could include discursively mediated (e.g., discussions, narratives, or conceptual clarifications) and practice-based (e.g., creating material outcomes or model building) activities to ensure that different perspectives are brought to the attention of all stakeholders (Stuedahl et al., 2020).

6.1. Limitations of the study

This study has four main limitations. First, teachers' written reports were likely to comply with perceived expectations for academic work. Thus, the reports were not necessarily truthful accounts of the collaborative learning processes that took place in the RPP. For example, teachers may be less inclined to reveal controversial opinions or discuss deeply held beliefs in such contexts, preferring instead to provide information that conforms with their perceptions of what counts as the "correct" opinion.

Second, given the collaborative nature of the project, teachers could be complying with perceived expectations in the interviews. As researchers participating in the partnership, we engaged in frequent discussions with teachers and school leaders. Furthermore, we were in a position of quasiauthority given our role as assessment scholars and in our practice as providers of professional development sessions. This

could potentially be a source of verification bias in the study (Flyvbjerg, 2006).

Third, the data do not describe how the partnership and the use of PD impacted student learning. This means that it is difficult to evaluate the long-term impact of the partnership in the classroom. However, given that we conceptualized this partnership as boundary work, these data also could be considered boundary objects (Akkerman & Bakker, 2011; Star & Griesemer, 1989) designed to assist teachers in making sense of or navigating cross-institutional borders. Therefore, the texts and the interview data could be defined as shared objects between two different systems of activity (Konkola et al., 2007), as they represent an attempt at bridging two cultures through participation in a learning practice in which teachers are not considered experts. These limitations indicate that insights gleaned from case studies such as the present one cannot be transferred to other contexts in a simplistic manner. However, we argue that the process of uncovering and leveraging situated strategies requires contextual awareness so that participants in RPPs can fit processes to existing cultural practices.

Fourth, our roles in the RPP may have affected the collection and analysis of interview data, in that participants adapted their responses to their beliefs about the interviewers' expectations. The close relations and shared experiences between the researchers and the practitioners allowed us to probe deeper into the interviewees' experiences, especially in the successful cases. Conversely, the data do not offer rich insights into the experiences of the outlier group. This limits our understanding of their use of PD in the partnership. Further details of their experiences as being separate from the partnership, their perspectives on educational change, and their views on the role of dialogue would enrich the study.

6.2. Implications

Contextual variability should be understood as a set of challenges and as a potential reservoir of valuable resources in research–practice partnerships. Stakeholders in partnerships may benefit from identifying existing situated strategies that can be leveraged to build trusting relations or reach partnership goals. However, leveraging situated strategies such as PD does not replace other strategies in RPPs; rather, they complement, enable, and enhance efforts to strengthen social relations and build trust. This may require extensive boundary-crossing work across knowledge domains or institutions, as well as effort from stakeholders such as boundary-spanners. Although situated strategies are not universally successful in change efforts and require contextual sensitivity, a well-established culture of dialogue and perspective-taking and -making may contribute to capacity-building in partnerships.

Declaration of Competing Interest

We have no conflict of interests to disclose.

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