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Dimensions of student participation: participatory action research in a teacher education context
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Chapter 6

General discussion

"Because then..., then you are not just researching something that you think is important, but also something that teacher education students think is important, or school students think is important."

Teacher educator (interviewed about the TEd program)

Chapter 6 – General discussion

Introduction

Central to this dissertation is the notion that young people are entitled to be involved in decision-making processes about issues that affect them, including in their school education, and to be taken seriously in their views and suggestions on these issues. Since this is not a common idea in education, neither in schools nor in the preparation of teachers, this research takes up the need to investigate an approach to prepare pre-service teachers (PSTs) for enabling student participation in decision-making in schools. More and more, teachers are supposed to be involved in research, as informed users or as practitioner researchers, and teacher education (TEd) programs include research activities for those roles. So, if PSTs are conducting research within their internships, involving school students in that experience creates an opportunity for enabling student participation. In combination with the (current) development of including stakeholders, such as teachers and students, as primary actors or collaborators in educational research, in this dissertation, participatory action research (PAR) has been introduced as an approach that pre-eminently prepares PSTs for participatory practices in schools.

The four studies included in this dissertation explore two projects in which PAR has been implemented to enhance school student participation in decision-making on school and classroom issues: one project focusing on collaborative school student-teacher research on student learning conditions in external settings (museum or library); and another project focusing on a one-year post-graduate TEd program in which PSTs were required to involve their school students into their PAR projects on an issue in their internship school, preferably negotiated with their school students.

Through the findings and recommendations, this dissertation seeks to contribute to the high-level goal of social justice and the enhancement of democratic approaches in education. Specifically, as one way to get closer to this higher goal, the studies consisted of an exploration of student participation in decision-making processes through teacher-learner partnerships in research, and more specifically, for this dissertation, of school students' involvement in PAR by PSTs as a means to enable student participation in schools. The practical aim then is to provide schools and TEd institutes with a way to implement or further develop student participation in decision-making processes, while considering opportunities and intricacies that can be expected to occur.

Findings per chapter

Before turning to overarching issues and topics related to the theme of this dissertation, and implications for research and practice, first, the main findings per chapter will be summarized.

Chapter 2 – The exploratory study

The research project 'Students and Teachers as Co-researchers', reported in Chapter 2, included teams of primary or secondary school students, teachers, and external educators who conducted collaborative research on student learning in an external educational setting (museum or library). An external setting as the site under investigation was deliberately chosen to create a more equal starting position for school students and teachers and to maximize school student participation in the investigation.

The study findings showed that school students in this context worked at a relatively high participation level. In terms of Fielding's models, school students acted as co-researchers or researchers (Fielding, 2001), or as co-enquirers, knowledge creators, or joint authors (Fielding, 2011, 2018). They did this at

all research stages, from formulating research questions to reporting findings. In general, the school students experienced a feeling of responsibility for the research. As intended, the projects involved a variety of school students (and teachers), not only the ones conducting the data collection, but also their peers in class (and school or museum/library). Those who were not members of the research teams were still explicitly part of the process as consulting peers. The setup of the projects can be labeled as a formal approach because they were designed to enable school students' influence on decisions, on conducting the research, and on shaping the external learning context. They were, however, also informal, because of the shown engagement of school students and teachers in joint activities and dialogues, during the research stages and in school. This can be understood as two-way teaching, from teacher to school student and the other way around.

Importantly, the PAR projects led to genuine changes in the external setting, due to perspectives and subsequent recommendations of the school students – sometimes unexpected by the teachers and educators. Furthermore, it struck teachers how capable and motivated their school students appeared in designing and conducting the research activities, and how that boosted their self-confidence. This transformed their idea about the mutual roles of teacher and student in class; the collaboration changed the teacher-student relationship based on increased trust in the involvement of school students in the development of lessons and resulting in a more friend-like way of working with and for their students.

Chapter 3 – Occurrence and nature of student participation

The three studies reported in Chapters 3-5 pertain to the consecutive project in the post-graduate TEd program, which included the requirement for the PSTs to involve school students in their PAR projects. It was not prescribed what form the participation of school students should take, although it was suggested and supported to strive for a genuine and more intense form.

The study of Chapter 3 aimed to gain insight into the extent and nature of school student participation in the action research projects of the PSTs in the internship schools.

This study showed that, in this TEd context, student participation occurred much more at the two less intensive levels (*Inform* and *Consult*) than at the two more intensive levels (*Participate*, *Collaborate*). Less intensive levels appeared, for instance, in the form of the PST using test scores, grades, or student work, taking surveys or having chats, or leading classroom brainstorms or discussions. The more intensive levels, *Participate* and *Collaborate*, were observed only in a few cases. The typical forms of collaboration that were identified at these levels included student research groups that supported PSTs in the PAR process and student research teams that worked together to create research instruments and collect data. Furthermore, these teams engaged in collaborative discussions about the results within the PST and school student research group. Activities at these more intensive levels were found more in the preparatory stages rather than later stages of the projects. Furthermore, regardless of the level, student participation was scarcely found in the stages of *Research design*, *Analysis of results*, and *Making public*. However, as expected, the level of student participation was found to vary over the research stages.

Still, the goal to realize student participation in the PAR projects was achieved, albeit not always on a level that may be regarded as active involvement in decision-making. Many of the PSTs in this stage of preparing for a teaching career found it too difficult to engage school students as genuine partners with them.

Finally, it was found that many of the research activities were conducted without the active participation of school students. This trend was evident at all stages and in nearly all projects. Although noteworthy, it was understandable as a consequence of the PAR project also being a PST's assignment in the teacher education program. PSTs felt pressured by the time frames for the assignment and for being graded, which made many of them more reluctant to add activities perceived as complicating and time-consuming, particularly involving school students. Additionally, it is worth mentioning that no PSTs enlisted school students in co-writing or writing parts of the report, including individual sections.

Chapter 4 – Principles for school student participation in pre-service teacher research

Drawing on the *Theory of Practice Architectures* (Kemmis, Wilkinson, et al., 2014)[17], the study reported in Chapter 4 explores the involvement of school students in PSTs' research activities, as they unfold in the PAR projects as part of the TEd program, as PAR practices: socially established cooperative human activity involving sayings, doings, and relatings, and prefigured by arrangements in three dimensions (see Table 15). Practices are organized activities of multiple people but still, individuals are acknowledged as agentic subjects in practices and therefore can have a role in the transformation of practice conditions (the arrangements). The objective here is to gain an understanding of how PSTs view the research requirement and the factors that facilitate or hinder their PAR projects with their students. The study specifically examines PSTs' PAR practices and the conditions that encourage them, as perceived by the PSTs themselves. From these perceived conditions, the study derives a set of 17 principles to support PSTs in their participatory action research.

Table 15. Types of arrangements and applicable aspects, concepts, and terms

Arrangements	Description	Aspects, concepts, terms
cultural-discursive	Semantic/conceptual aspects: Usual ways of talking, thinking, and exchanging through language	language, dialogue concepts, ideas, goals/aims beliefs, perspectives
material-economic	Spatial, and temporal aspects: Usual ways of doing and organizing things	objects, spatial arrangements time and resources, program organization materials, study guides
social-political	Relational aspects: Usual ways of relating to each other; aspects of power and solidarity	roles and tasks agency, influence, recognition, rights status, position, hierarchy

The findings of this study indicate that PSTs value being provided with a clear view of teacher research and *clarity* in the use of terms and the meaning of concepts used in the TEd program, such as *student participation* and *focus on the learner*. They felt that experiencing this clarity in both the institute and the school setting assists in developing a comprehensive understanding of how to engage students in research activities and serves as a constant reminder throughout their entire internship period. Furthermore, the PSTs stressed the importance for their PAR projects of good planning, and *coherence* in the program and activities between the institute and the school, and to pursue *continuity* in curriculum and lesson planning and in the allocation of classes. The derived principle of *contingency* links to the view that student participation should result in real, observable impact, which recognizes school students as capable and valuable partners. Since PSTs can feel uncomfortable sharing power

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[17] See Chapter 4, p. 68, Theoretical framework, for a more elaborate description of the *Theory of Practice Architectures*.

with their school students, they need ample time to build a climate of trust and *safety* for school students and themselves.

Chapter 5 – Manifestations of PST PAR principles in a teacher education program

The set of principles derived from PSTs' experiences and practices (Chapter 4) was utilized in this study. We anticipated that the degree to which these PST PAR principles are manifest in the current TEd program, either in a positive or negative sense, would serve as an indicator of its potential to facilitate and promote student participation in PST PAR projects. In this study, we examined interviews with the TEd staff on their views and actions to identify manifestations of PST PAR principles, as they were responsible for developing and implementing the TEd program.

First, it was found that preparing PSTs for student participation and specifically, for involving school students in their action research projects appeared as challenging for the TEd staff, as it was for the PSTs, albeit for different reasons. However, this participatory approach to doing research was well received by both teacher educators and PSTs.

The attainment of principles in the TEd program showed a varying picture. Some were already evident in the program and could be observed, while others were in the form of ideas and intentions for incorporating or enhancing program elements that facilitate student involvement in education and PAR projects by PSTs. However, some principles were not implemented or not fully realized to the intended extent. On the *social-political dimension*, the principle of *recognition* was manifest most frequently, often in combination with a principle from one of the other two dimensions. Yet, also in the view of the teacher educators, recognition of students was found not to be a natural habitus of PSTs. The TEd staff reported they had to put much effort into clarifying the concept of student participation in PAR and developing a shared and consistent way of talking and implementing this in practice. They were aware of issues regarding the *safety* of PSTs, for instance, their feelings of loss of control in class and of fear of failing to achieve curriculum demands. Furthermore, also their data indicated differences in demands and expectations of PST's relation with school students between the TEd institute and schools (issues of *equality* and *recognition*, in combination with a lack of *coherence* and *unity*), which impedes the degree to which student participation and PAR can be achieved. The TEd program and internship schools do not inherently incorporate social-political principles such as recognition, reciprocity, and equality. Findings on the *cultural-discursive dimension* point to teacher educators' efforts to put forward principles for student participation and PAR as central elements in the program. They acknowledged the unfamiliarity of PSTs with the approach and therefore the need to include activities to provide PSTs with *clarity* and *coherence* in the concepts and procedures of the program. Teacher educators' data emphasized the importance of the *centrality* of a 'focus on the learner' in the program and maintaining *consistency* in this approach for empowering PSTs to facilitate student participation in their PAR projects. Lastly, on the *material-economic dimension,* the importance of *coherence* between TEd and school staff perspectives and practices was clear. TEd staff stated that the explicit assignment to involve school students in PSTs' research led to a logical set of cohesive activities for PSTs throughout the program and for a sustained period. However, issues of *practicality* occurred because of unaligned or even conflicting demands from the TEd institute versus internship schools.

Reflections

This dissertation aims to investigate how PSTs understood and enacted collaborative research practices with their students, as well as the conditions within TEd settings that impact the unfolding,

and developing of such participatory practices. The intention is to provide an account of these practices and conditions and to derive analytical and practical tools which can aid schools and teacher education institutions in implementing or enhancing student involvement in decision-making processes, in particular through PST-school student collaboration in research.

For the studies, PAR has been suggested and implemented as the approach to enable student participation and create experiences for stakeholders that can foster participatory practices. As Torre, Cahill, and Fox (2015, p. 540) describe, "Rooted in principles of justice and democracy, participatory action research (PAR) is an inclusive, collaborative approach to research defined both by participation and a determination to produce knowledge in the interest of social change". In terms of the *Theory of Practice Architectures* (Kemmis, Wilkinson, et al., 2014), this social change can pertain to all three dimensions of the teaching and learning practice, and to both the practice as conducted on-site - in the classroom by teacher and school students - and the conditions (arrangements) that enable or constrain them.

In light of this general aim and the findings of the four studies, three issues of particular interest will be discussed below.

Realization of student participation in school

The impetus for this dissertation, besides personal views on childhood and democracy, can be characterized with reference to Percy-Hazan and Somech's (2021) recently published *Integrative model of student participative decision making*. They focus on the school as a system of actors and institutional and social structures. In their model, taking elements of student participation in decision-making from several other models, four components are distinguished (p. 6):

> (1) rationales for student participative decision making (pragmatic, moral, developmental/pedagogical), (2) dimensions of student participative decision making (decision domains, level, structure, target), (3) outcomes of student participative decision making and (4) school's organizational culture (individualistic/collectivistic, high power distance/low power distance).

Looking through the lens of the first component of this descriptive model, in hindsight, the rationale for this dissertation categorizes as both (a) a moral (humanistic, legal) rationale, granting young people the right to involvement in decisions affecting their lives, which includes their school lives; and (b) a developmental rationale, "relating to agency, belonging and competence […]", and pedagogical rationale, "relating to civic skills and critical thinking" (Perry-Hazan & Somech, 2021, p. 7) and schools as a practice ground for democratic processes (Print et al., 2002; Rinnooy Kan et al., 2023). The latter rationale is linked with discussions on the aim and role of education in developing democratic attitudes and skills in students. Print and colleagues (2002) distinguish two mutually dependent and reinforcing perceptions of democracy in the discussion on democratic teaching: (1) democracy as a form of government; and (2) democracy as a philosophy for and the basis of a way of living. They characterize the first as essentially a technical, institutional perspective and the second as a dialogical perspective, based on a "willingness to listen to and be influenced by arguments" (Print et al., 2002, p. 190). The aims of this dissertation − enabling student participation in decision-making and preparing PSTs for that − are connected to the second perception of democracy, a form of social-political practice in daily life, including school life. In Chapters 4 and 5, this perspective is visible in the social-political dimension, as distinguished in the *Theory of Practice Architectures*.

A major first question is, of course, was student participation in decision-making processes achieved in or through the PAR projects that were conducted as part of the studies in this dissertation? The answer to this question depends, firstly, on what is taken as student participation and what elements

are essential for this and, secondly, what ambition level has been adopted for the projects in this dissertation. Even though in this dissertation's studies, there was no strict requirement as to the form or level of participation of the school students, the aim was to enable them to collaborate with their teacher at an as intensive level as attainable, not just being listened to, and to have a genuine, observable impact on decisions made during the research project and on resulting changes in practice. In this respect, we followed a transformative approach to student voice (Fielding, 2004, 2007) and a dialogical approach to research in education, which characterizes critical participatory action research as "a way of opening up spaces for dialogue and conversation about states of affairs in our worlds" (Kemmis, McTaggart, et al., 2014, p. 28). This approach of action research is not so much about 'getting things done' or doing them more efficiently (a technical approach), but striving for intersubjective agreement, mutual understanding, and unforced consensus (Kemmis, McTaggart, et al., 2014) and creating communicative spaces to openly explore how current practices can be transformed. It is a democratic and participatory conceptualization of educational action research, coined by Salo and Rönnerman (2023) as 'action research for being' in contrast to 'action research for doing'. In line with research and literature on student voice and participation (e.g. Lundy, 2007; Mitra, 2006; Rudduck & Fielding, 2006), school students just having a voice, and being able to express views, would fall short of being really listened to, and taken seriously in decision-making processes. We were striving to develop teacher-learner partnerships that could extend beyond the scope of a research project during an internship and be integrated into everyday school practices. Based on this perspective of 'democracy as a philosophy for and the basis of a way of living' (Print et al., 2002), it can be concluded that certain PST projects demonstrated activities and collaborative forms in PST research that represent the initial stages of development towards achieving this goal. Data from the studies show that even within restricted time frames and contexts, a form of student participation - in the sense of having a real influence on decisions being made for educational practice - is possible and has been achieved. School students participated in designing and conducting the research projects, be it at various levels, and their views and suggestions contributed to changes in their teaching and learning content or conditions.

A consecutive question then is: can the projects' results and experiences lead to a culture of participation in schools? Not surprisingly, the answer to this is, not in the short term. As could be expected from the literature on innovations in organisations such as schools (e.g. Fullan, 2007), changes in culture form the most difficult part of sustained educational change. Building such a participatory culture goes beyond a single participatory research project and requires broad support from school leaders and teaching staff. This was not achievable within the restricted context of the studies. In their overview of three periods of educational change, Hargreaves and Goodson (2006) mention claims that can be drawn from educational reforms, namely (p. 5):

> "[…] that practice changes before beliefs (Huberman & Miles, 1984), that it is better to think big but start small (Fullan, 1997), that evolutionary planning works better than linear planning (Louis & Miles, 1990), and that the most effective change strategies are top-down and bottom-up (Hopkins, Ainscow, & West, 1994) and combine both pressure and support (Fullan, 1993)".

In our studies, these claims resonate, not asserting that these have been fully realized. Experiences in school practice, through relatively small instances of collaborative research, were supposed to change the dispositions of PSTs. Through conducting the PAR projects, we intended to create for PSTs and teachers real experiences about student participation that could demonstrate the value of democratic and participatory processes in classrooms and schools. This could form a basis for developing and

establishing a "pattern of partnership" (Fielding & Moss, 2011) between school staff and students, in which both can have a lead in investigating current practices. The enthusiastic responses of school students to participating in the PAR projects and the reported positive attitudes of most PSTs towards student participation and PAR can be taken as markers of local successes. Presentation of results and recommendations and discussing them with various stakeholders can broaden a positive view to others than the co-researchers, as was observed in the exploratory study. However, also results from both contexts – the exploratory study, and the consecutive studies – show the difficulties of involving all voices and the impact of the practice architecture of the specific site in the scope for enabling active student involvement in decision-making. Involving school students in teacher research has a significant relational character, as reflected in the social-political dimension of the practice arrangements. The set of PST PAR principles (see Chapters 4 and 5) points to important aspects in this respect. Collaboration on the level of co-researcher requires teachers and school students to recognize each other's perspectives and capacities, however different, and build on a basis of equality and safety in a dialogue on educational issues. This seemed to be easier to accomplish in the context of primary schools than in secondary schools, because teachers in primary schools teach one class for most of the scheduled school hours and can spend more time on relation-building with their school students. Teachers in secondary education and the PSTs in our studies teach specific subjects only for a few hours a week, which limits the time to get to know each other's preferences, perspectives, and capacities. In the exploratory study, a more intense student participation form than in the consecutive studies in initial TEd appeared possible: school students were involved in the setup of the PAR project by deciding on research questions and methods, collecting and discussing data, and formulating and reporting results as the main presenters. Also, informing and consulting peers who were not actively involved in data collection was generally practiced by all stakeholder groups, school students, teachers, and external educators.

Ethical issues of student participation in educational research

Social research involving humans is intricately loaded with issues of ethics, not only in the case of adults but even more so when young people are involved. Commonly, regarding ethical conduct in research, we think of the use of appropriate methods and instruments, careful data collection and management, and fairness in drawing conclusions. These issues play an important role in participatory research with students too, and ethical standards for such educational research were approved by ethics assessment boards and adhered to in conducting the studies. However, in this dissertation, we focus on specific issues in research with young people and in relation to the specific context of a PAR project assignment and an internship during a TEd program. In these PAR projects, adults (in-service and pre-service teachers and educators) involve young people (school students) in researching their educational practice, which poses ethical questions around topics such as collaboration and power dynamics, inclusion and representativeness, vulnerability and safety. Concerning the participation of young people in practitioner/teacher research, criteria for ethical conduct have been formulated (e.g. Farrell, 2005; Groundwater-Smith & Mockler, 2007; Kemmis, McTaggart, et al., 2014; Lansdown, 2005; Matthews, 2017; Mockler, 2014; Osler, 2010; Thomas & O'Kane, 1998), which are all grounded on the recognition of children as rights-holders and active agents and the responsibility of adults to ensure the conditions through which children can act as social and moral agents with rights (Mayall, 2000; Quennerstedt & Quennerstedt, 2014). In terms of the *Theory of Practice Architectures* and the set of PST PAR principles from this dissertation, this pertains to the three dimensions of the practice architecture of the practice: the cultural-discursive dimension (language, perspectives, and concepts),

the material-economic dimension (facilities, materials, and organization), and the social-political dimension (relations, positions, agency, and power). Student participation needs to be seen and talked about in clear and supportive terms; students should be facilitated and supported by appropriate mechanisms and procedures; and they must be regarded as essential and serious partners in decision-making, whose views are habitually sought and used for constructing, examining, and possibly transforming the practice. Often, in educational practitioner research, this takes the form of teacher-student collaboration through action research approaches, as was the case in our studies. As Groundwater-Smith and colleagues put it: "In collaborative action research, researchers aim to co-research with research participants to transform inequitable and unjust knowledges, structures and practices" (2013, p. 112). However, such collaborations start from or build on a relational re-centering of the educational process and a dialogical approach to student voice (Fielding & Moss, 2011), a practice that "draws together children's capabilities from all facets of their life to enhance their self-concept as agentic learners in educational settings." (Bourke & O'Neill, 2022, p. 7).

Realizing genuine student participation in this ethics sense, therefore, goes beyond informing and consulting students and following the agenda of the teacher. It includes being involved in the role of researchers, as manifested in participating in the identification of the relevant questions, choice of research methods, and discussions on results and implications (Lansdown, 2005). The question then is, to what extent did the PAR projects exemplify an ethical practice of student participation? Were the school students' perspectives taken seriously, and whose voices were heard? From all students in the class? Whose questions were being investigated? Who decided on that? Did school students' input have any visible impact on recommendations and changes in their school lives? And so on. These are questions that point to fairness in teacher-student collaboration. Regarding answering these questions, a difference occurs between the exploratory study and the consecutive studies. In the former study, research was purposefully planned to be conducted in and about external settings, which was supposed to moderate existing hierarchical teacher-student relational patterns. Furthermore, a longer period of preparing the participants for research was available, compared to the projects in the consecutive study. The projects in the consecutive studies were bound to an existing TEd program and requirements and to standing practices, curricula, and regulations in the internship schools. Consequently, these projects were conducted within a shorter period, and obligatorily linked to the specific teaching practice and the school subject, which put the PST almost automatically in a central, leading role. It could be observed that school students in the exploratory study started from the given topic for the project but were guided to formulating their own research questions and collecting data themselves, while the teacher's role in this was more of a follower. Moreover, the class decided on peer students as members for their research, from candidates who applied for it, which did include not only the most vocally skilled students or popular persons, but a fair representation of the class population.

Action research, student participation, and PST learning in the context of teacher education
Following up on the complexities of conducting PAR in PST-school student partnerships and the affordances for this in schools, an issue arises concerning the value of integrating PAR into TEd for developing teaching and learning practices in schools that involve school students in decision-making processes. Action research by teachers on topics related to their educational practices has been promoted to overcome disappointing experiences with school and curriculum development programs by generating practical solutions to context-based problems while extending the knowledge base of teaching in general. Also, action research has been suggested and implemented in TEd programs as a

means for PSTs to gain positive dispositions toward practitioner research, acquire knowledge and skills in conducting research in schools, and develop a sustained inquiry stance. Furthermore, action research is seen as an approach or tool for teachers' individual and collective professional development (e.g. Admiraal et al., 2016; Bendtsen et al., 2021; Capobianco & Ní Ríordáin, 2015; Leitch & Day, 2000; Noffke, 1994; Oolbekkink-Marchand et al., 2020; Ponte et al., 2004; West, 2011). Many times, positive outcomes of action research have been reported for the improvement of educational practices and student learning, also in the context of initial TEd. Action research in TEd is reported to contribute to PSTs' knowledge construction, gaining practical teaching practices, building confidence in teaching their subjects (Chou, 2010), and providing a deeper understanding of practices through, for instance, unforeseen discrepancies between expectations and observations of classroom events (Ulvik & Riese, 2016). However, for the attainment of these outcomes of action research, having ample time and space for conducting the research and reflecting on the process and outcomes, and finding an open, safe, and supportive research culture in the internship school is deemed conditional. Regularly, these conditions were not met in this project. In a post-master TEd context, as in this dissertation, PSTs are bound to a relatively short period in which to conduct their action research projects, which conflicts with the cyclic and developmental aim and character of AR. Moreover, the PSTs' projects were an assessed part of the TEd program and could be taken more as an inevitable assignment than as a critical investigation aimed at the improvement of educational practices (Darwin & Barahona, 2018; Reis-Jorge, 2007). PSTs perform a double role as a student-teacher, working for assessments and towards graduation as a qualified teacher, and as a – temporary and pre-service – teacher, working for student learning and practice development. This dual role adds a substantial level of complexity to the position of PAR in TEd: it can place PSTs in an uncomfortable position in school because PAR can challenge and disrupt the existing practices of teachers. Involving school students in research and wider decision-making can be perceived as unsolicited breaches of the school culture by 'outsiders' or as threats to student outcomes when teaching departs from the standard curriculum content and planning.

The findings from the PAR projects in the TEd context correspond with these issues to a large extent. They were single projects and not necessarily part of or leading to a sustained culture of participation. They were confined in time and could not run several cycles of action research. Several schools, and the international schools in particular, used a generally prescribed curriculum and gave little room to deviate or to plan participatory research activities. School mentors were often not equipped with enough research knowledge and skills or enthusiasm for PST research to be of sufficient support. Furthermore, the PST projects were positioned in the TEd program as a capstone assignment and included an assessment of the research report based on standard rubrics. Consequently, the reports were composed by the PSTs without direct input from the school students, and the dissemination of the results outside of the TEd institute was limited. Even though we aimed to have the research topic and questions be of relevance for the school students, and preferably be negotiated in partnership, this was not always fully achieved. In the TEd program and internship school contexts, the PSTs students are in a dependent position and may experience having a lower status regarding their current skill level in teaching and research. This does not align well with principles on the social-political dimension, which require being recognized as a valuable partner.

Despite all these issues and complexities of involving school students in PST PAR projects, successful student participation in the research projects did occur at various stages of the projects, and improvements in educational practice were collaboratively implemented and examined. Considering that in the early phases of teaching, teachers are mostly confronted with practical issues such as

classroom management, student behavior, and suitable teaching methods, Mitchell and colleagues (2009) state that short PD courses or seminars will not address these specific and site-based problems. They argue that a collaborative action research model is the best approach in particular for beginning teachers. We support this position because of the close connection of such a model to the teacher's practice and the structure offered for experimenting. Since for teachers, a negative relationship has been found between years of teaching experience and interest in learning through experimentation with alternative lesson methods (Louws, 2016), conducting research is an advisable part of the pre-service and early career teacher job. Still, it needs to be considered that PSTs and beginning teachers work and are socialized in established school structures and teaching staff of various ages and career stages. This impacts the trajectory of induction into the teaching job, following Hargreaves (2005, p. 971):

> Teachers who experience easier beginnings often find themselves in mixed cultures of youth and experience, where mentoring is part of a wider culture of collegiality and commitment (Hargreaves & Fullan, 2000). This moral and technical support helps preserve their sense of mission and develop resilience to obstacles and difficulties.

We consider the experiences that PSTs had with planning, conducting, and writing about a PAR project as valuable and suitable ways to involve their school students and as powerful ways for PSTs to develop an identity as a researcher and as a partner to school students. This requires presenting practitioner inquiry to PSTs "as an ongoing, systematic, and collaborative process" (Rutten, 2021, p. 12), even though they conducted a one-off project during their internship. Furthermore, teacher educators can support PSTs in searching for other kinds of knowledge than just in the technical domain, as they tend to do when left to themselves (Ponte et al., 2004), but to extend this to the ideological and empirical domain, and in collaboration with their school students.

Limitations and suggestions for future research

In this section, three limitations of this dissertation will be addressed together with suggestions for further research related to that issue: 1) the target group of the studies; 2) the scope of the research topics in the PAR projects; and, 3) the research data that were collected.

Target group of the studies

The first limitation of this dissertation pertains to the target group. The studies focused on the PAR practices of pre-service and in-service teachers in professional development contexts, either as a master course or as a TEd program. Consequently, the studies were limited to the actual period of conducting the PAR project and did not encompass in-service teaching throughout the teacher's career. As reported by, for instance, Brouwer et al. (2018), in the first years of in-service teaching, research is not the main concern of teachers. A positive research disposition developed during TEd can remain after entering the teaching job, but actual research-related activities in the initial in-service period are commonly limited to critically reflecting on the practice and applying knowledge from research. Beginning teachers often stall conducting research themselves for some time and it is uncertain if it is taken up again and if so, in what form.

Further research could focus on the lasting impact of student participation in teacher research under current conditions and/or on the development of the practice architectures towards a participatory approach. This would broaden the research scope and give insight into the sustainability of the participatory approach after graduation or completion of the course and after an introductory period in professional life as a teacher. More specifically, follow-up research on PST PAR projects in an

established participatory TEd context could corroborate the enabling conditions and principles for PST-school students' collaboration in research found in this dissertation.

Scope of the research topics in the PAR projects

The second limitation pertains to the scope of the research topics of the PSTs' PAR projects. The studies encompassed a variety of school types, including primary education, pre-vocational secondary education, and upper secondary education, and both in-service and pre-service teachers, thus covering a broad range of educational contexts. However, all PAR projects were conducted as group-based activities - with respective research participants from one class or school student group - and focused on group-level research topics of learning and curriculum. Moreover, the projects did focus primarily on the primary process of teaching and learning and not on schoolwide issues for investigation, such as school policies for curriculum development, time schedules, allocation of budgets, and staff recruitment and development. This is understandable because PSTs conduct research as part of learning to become a teacher with a focus on teaching skills (and not so much on political or social issues that teacher education programmes could also include). Typically, learning to teach does not include consideration of these political or social issues. Also, school students' expectations of involvement in decision-making outside the classroom may not be a first priority in learning to teach. However, such issues are potentially within the domain of student participation in decision-making and are seen as fitting within the school's task to educate young people for democratic citizenship (Bron, 2018; Rinnooy Kan et al., 2023). Our findings on projects in classroom contexts might not be directly transferable to student participation in settings of collaborative research by mixed age groups and on broader or more structural school organization and policy issues. Such research potentially impacts more stakeholders and might face more initial resistance.

Further research is suggested on student participation in a wider school context than the classroom research practice of a specific teacher and the relation between student participation in individual teacher's research and school culture in decision-making. Consider, for example, class-transcending PAR projects on the physical design of the internal or external school environment or student experiences with behavioral rules in school and possible adjustments thereof. It can also be investigated as to what extent the participatory approach is shared or transferred to fellow school students and teachers and whether this is reflected in the way of collaboration in school. Results from such studies could point to opportunities for schools to develop from incidental activities towards a participatory culture. Looking at these issues from a practice architectures perspective and its three dimensions of arrangements supports finding enablers and constraints in school for connecting classroom and school-wide student participation.

Research data

As a third issue, limitations regarding the research data can be noted. There are two types of limitations of this kind. The first is the focus on teacher and educator data. Since school student involvement in collaborative processes of decision-making is still rare in the Netherlands, these studies concentrated on aspects of *preparing* PSTs for participatory practices. Therefore, data collection was focused on PSTs' views, roles, and actions and their preparation for participatory practices in a teacher course or program; the studies did not include systematic data collection on school students' PAR experiences.

For a comprehensive picture of the interplay between pre-service and in-service teachers and school students in the unfolding of student participation, further research into the school students' perspectives would be needed. This could include looking at the micro-politics of PAR in class, for

example on topics such as school students' views and practices, the inclusion or exclusion of specific school students' voices or perspectives, and by including the aspect of *contingency* (follow-up) of school students' input and suggestions. This would need more than just a single survey or interview, and would preferably extend over a longer period, which would also yield insight into the sustainability of the participatory practices.

The other limitation with regard to the research data concerns the idiosyncratic character of the data sources. The PSTs' research reports and PSTs' and teacher educators' interviews represent personal perspectives on school student involvement in PST research and their account of that; not their actual practices per se. One potential avenue for further research to address this limitation involves comparing perceived and implemented teaching practices through classroom and school observations. Additionally, it may be beneficial to investigate the perspectives of other stakeholders, such as PST's school students, through either a descriptive study similar to the current ones or a PAR study involving stakeholders from both the school and the TEd institute. A related research direction is to examine the dispositions of the key actors involved in the practice, namely the PSTs, school students, and teacher educators, concerning their knowledge, skills, and values related to PAR and school participation in decision-making processes in school. It would also be worthwhile to investigate the interaction of their dispositions with the arrangements in place, as well as the impact of these interactions on the unfolding of a participatory action research practice.

Implications for practice and research

The findings have implications for practice and research on teaching and teacher learning in different categories:

- methodological implications, pertaining to researching PAR and student participation practices and to using PAR as a research approach for investigating practices.
- substantive or content-related implications, pertaining to teaching in school from a participatory approach;
- developmental or design-oriented implications, pertaining to developing the PAR approach in TEd and schools;

Methodological implications

The underlying belief of this dissertation is that while experimental educational research is useful in discovering and evaluating teaching and learning methods on a general level, results from such research are not easily applied in specific local educational contexts, because of site-based conditions, preferences, and choices, and characteristics and dispositions of local stakeholders, including the school students. For these reasons, teacher research must involve school students' perspectives and involve school students as first-person actors in the research process. According to the studies in this dissertation, the use of action research methods that involve school students, as seen in the PAR projects, is an effective approach for student participation and teacher professional development. It can help to overcome the divide between theory and practice. PAR has a close connection with actual teaching and learning practice and considers the normative character of education, the stakeholders' perspectives and interpretations, and specific local context characteristics. Moreover, conducting PAR stimulates the understanding and negotiation of mutual needs and concerns, and helps work towards more just and democratic practices.

Substantive or content-related implications

Incorporating new educational insights through active implementation and reflecting on the results is crucial for teachers' ongoing professional development. In the case of student participation in decision-making processes in the classroom and school, a developmental implication is that it is necessary to establish an environment where teachers and students can collaborate as partners, such as through action research. Enacting a participatory approach through conducting a PAR project in collaboration with school students has shown to be a suitable approach to support PSTs in developing a positive disposition toward student participation. A content-related implication from the studies is to use the *SPinSTAR matrix* from Chapter 3 (see Table 16) for introducing PSTs to such a participatory practice. This matrix builds on four levels of student participation along eight stages in the research process. It has the potential to serve as a valuable tool in the TEd program, as it provides PSTs with a perspective on teaching and research that deviates from the norm. The *SPinSTAR matrix* could serve teacher educators in (a) introducing PAR to PSTs and enhancing the uptake of student participation in PST research; (b) offering PSTs a scaffolding tool for the PAR process; (c) equipping them such that they can keep on doing PAR on their own, can find a suitable context for such research in schools, and can speak out for PAR practice before colleagues and school.

Table 16. Matrix SPinSTAR (Student participation in student teacher's action research)

Action research stage	Level of school student involvement				
	None (no student participation)	**Inform** (data source)	**Consult** (active respondent)	**Participate** (co-researcher; knowledge creator)	**Collaborate** (researcher/joint author; shared decisions)
a. Problem definition (RQs)					
b. Intervention design					
c. Research design					
d. Conduct intervention[18]					
e. Data collection					
f. Analysis of results					
g. Formulation of suggestions / recommendations					
h. Making public					

(adapted from Bovill, 2017; Fielding, 2001, 2011, 2018)

Developmental or design-oriented implications

Facilitating the development of collaboration between PSTs and school students should be made simple and appealing. Therefore, it is best to begin with a small and low-pressure task that fosters teacher-student interaction. From there, the collaboration can gradually progress towards a PAR project that benefits all stakeholders involved. To initiate student participation in the PAR projects,

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[18] Although conducting the intervention in class is part of the action research process, in the context of this study it is not related to school student involvement in decision-making processes concerning the action research project. Therefore, this row is not used for coding the level of student involvement.

PSTs need to get a good grasp of the participatory approach. Therefore, the set of principles for student participation in PAR (Chapter 4) can serve as the central element in the TEd program. Presenting successful examples of PAR from the literature and challenging the central role of the teacher in classroom practices provides PSTs with clarity and coherence in the concepts of the program. Furthermore, PSTs need sufficient space for conducting their PAR projects in the internship schools and support from their school mentors in involving school students. Dedicated discussion of ideas, concepts, and goals on participatory topics between teacher educators and school coaches and courses can create more coherence for PSTs, informed support, and availability of resources for conducting PAR in schools.

The results from Chapters 3-5 indicate that conducting PAR in a constrained context such as a research assignment in a one-year TEd program does not naturally evoke student participation at all research stages, which shows most obviously in the absence of school students in the presentation of findings.

As a design-oriented implication of this finding, it is recommended to require PSTs to have their school students included as co-writers for at least parts of the research report, and as reviewers of the conclusions and recommendations. The *SPinSTAR matrix*, again, can help make PSTs aware of such gaps in planning and mapping student participation in their research. They can use it to analyze their own PST research practice; to get ideas for student participation in PST PAR assignments; to realize that student participation can vary along the way in content and level and that teacher research can have differentiated school student input at various action research stages. During the PST project, it is advisable for teacher educators and PSTs to plan for moments of reflection and to use the set of PAR principles (Chapters 4 and 5) for monitoring the unfolding of the PST PAR projects against the extent to which the principles are met.

Another design-oriented implication is to introduce PAR as a permanent part of the curriculum in TEd to equip future teachers with research skills and attitudes that lead to a critical collaborative examination of teaching practices and meaningful and actionable changes in education. The set of PST PAR principles can be used to determine the nature of the arrangements and categorize and analyze observed or reported classroom and school practices. This can yield a more detailed insight, along the three dimensions of practice architectures, into the participatory qualities of the practices and the intertwined mechanisms affecting student participation.

For supporting PSTs and teachers in conducting PAR, the *SPinSTAR matrix* can be useful, as already indicated above. It can help them in identifying different options for the involvement of their school students at various research stages and becoming aware of possibly overlooked opportunities for such participation.

New ways of working (and thinking) for teachers need careful introduction and support. As a developmental implication of our findings on PST PAR principles, it is suggested to develop a TEd program based on a central and consistent participatory approach and explicitly supported at the partner school. Adherence to this approach should not be aimed only at the PSTs, but at teacher educators and schools as well. Applying Shier's (2001) model, facilitating novel work approaches can generate an opening and opportunity for teachers and students to explore their practices, resulting in potential modifications to their knowledge, beliefs, and attitudes. Such transformations can trigger additional experimentation and evolution toward greater student involvement. This way participatory approaches in education could evolve from an initial 'niche' activity to a culture of participation (Kirby et al., 2003). The set of PST PAR principles could be a starting point for determining the current nature

of arrangements at both sites, the TEd institute and the school, and discovering openings and opportunities for starting or developing participatory approaches. As suggested in Chapter 5, one possible strategy could be to initiate a collaborative process where participants discuss and create a TEd program aimed at involving school students as partners in their education. Incorporating a small-scale participatory research project into this program provokes in PSTs - and their teacher educators and school coaches - the imagining of school students as partners in the educational context. Since PSTs are dealing with layered practices of TEd programs and internship schools, developing conditions that support PSTs in coping with these layered practices is a crucial task for teacher educators, as for schools. It is, for instance, essential to ensure an open and neutral 'communicative space' (Aspfors et al., 2015; Kemmis, 2008; Sjølie et al., 2018) for the research, a space that allows for a genuine and open teacher-student dialogue.