

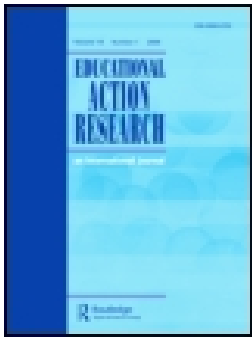
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To cite this article: Helma Oolbekkink-Marchand , Ida Oosterheert , Lotte Scholte Lubberink & Eddie Denessen (2020): The position of student teacher practitioner research in teacher education: teacher educators' perspectives, Educational Action Research, DOI: [10.1080/09650792.2020.1857811](https://doi.org/10.1080/09650792.2020.1857811)

To link to this article: <https://doi.org/10.1080/09650792.2020.1857811>



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Published online: 17 Dec 2020.



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The position of student teacher practitioner research in teacher education: teacher educators' perspectives

Helma Oolbekkink-Marchand ^a, Ida Oosterheert^a, Lotte Scholte Lubberink^b and Eddie Denessen ^c

^aRadboud Teachers' Academy, Radboud University, Nijmegen, The Netherlands; ^bVET College, Enschede, The Netherlands; ^cDepartment of Education, Radboud University, Nijmegen, The Netherlands

ABSTRACT

Teacher education institutes generally assume that practitioner research in teacher education contributes to student teachers' professional development as well as to school development and generalizable knowledge. As a consequence, the position of student teacher research in teacher education and its goals have become unclear. In this interview study, teacher educators' perspectives on the goals of practitioner research for student teachers and the relations between these goals were investigated. Teacher educators shared the view that practitioner research can contribute to novice teachers' professional development, particularly to the development of an inquiry stance. Teacher educators also mentioned several professional development goals and school development goals. The relations between these goals could be characterized as connections and consequences. Teacher educators mainly connected professional development goals and perceived school development goals as a possible consequence of professional development. This study can inform the discussion on the position of student teacher research in teacher education.

ARTICLE HISTORY

Received 10 June 2020
Accepted 13 November 2020

KEYWORDS

Practitioner research;
university-based teacher
education; student teachers;
professional development

1. Introduction

In many countries, over the last decade, the standardization of the curriculum and of teaching has led to a decrease in teachers' autonomy and agency (Oolbekkink-Marchand, Hadar, Smith, Helleve and Ulvik 2017). Concerns have been raised by researchers that this leads to 'constrained professionalism' of teachers (Wills and Sandholz 2009). At the same time, teachers' agency is considered essential in relation to the quality of education, student achievement and continuing professional development (Toom, Pyhälto and Rust 2015). One important way in which teachers manifest themselves as agents of change is in conducting teacher research. The process and outcomes of teacher research contribute to continuous reflection and improvement of education (Ulvik and Riese 2016).

Therefore, in teacher education practitioner research has become a structural part of the teacher education curriculum (e.g., Beckman 1957; Perrodin 1959; Vaughan and Burnaford 2016). Teacher education institutes in general assume that practitioner research contributes to student teachers' development as agentic teachers. More

CONTACT Helma Oolbekkink-Marchand  h.oolbekkink@docentenacademie.ru.nl

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specifically, student teacher research can bring theory and practice together and help student teachers develop an inquiry stance that contributes to teachers' lifelong learning (Cochran-Smith et al. 2009; Katsarou and Tsafos 2013).

In the Netherlands, in the past decade, practitioner research has become a structural part of the curriculum of teacher education in both university-based and higher vocational teacher education programmes (Ax, Ponte, and Brouwer 2008; Dobber et al. 2012). While student teacher research in the Netherlands shares with most teacher education programmes the goal to contribute to professional development, there seem to be some additional goals associated with student teacher research.

As elsewhere, Dutch teacher education institutes work in partnerships with schools. The way student teacher research is positioned within these partnerships also influences research in schools, and vice versa. Particularly the current trend to transform secondary schools into academically oriented certified partners of university teacher education programmes contributes to more pronounced research culture in the schools and thereby creates an environment for student teachers to do research (Meijer et al. 2012). Increasingly, these academic schools try to connect student teacher research and teacher research to school development, thereby extending the goals. Also, as is the case in any teacher education programme, there are external demands on a teacher education masters programme, having consequences for what student teacher research should be about. Examples of these are the Bologna Working Group (2005), prescribing that student teachers should be able to make 'an original contribution to knowledge' and nationally formulated teacher competencies indicating the ability to 'contribute to the creation of new knowledge and educational practices' (Westbroek and Kaal 2016).

In summary, multiple goals thus seem to be associated with student teacher research, referring to the broad domains of personal professional development, school development, and the construction of generalizable scientific knowledge. This leaves teacher educators and their students with an unclear status and role of an important part of the curriculum which may impede its potential contribution to their professionalism. This concern is not new. In 1998, Cochran-Smith and Lytle put forward their concern that if teacher research is becoming 'used in the service of more and more agendas and even institutionalised in certain contexts, it is in danger of becoming anything and everything [which could] lead in the end to nothing of consequence or power' (Cochran-Smith and Lytle 1998, 21). We share this concern and therefore have undertaken a study to shed more light on this multiple goal issue in student teacher practitioner research. We depart from a constructivist social epistemological lens which denotes that we are interested in the social construction of knowledge and whether certain knowledge is accepted or not by a social group. More specifically in this study, we aim to gain insight in the (more or less) shared understanding of teacher educators on student teacher research while acknowledging that teacher educators develop their understanding in interaction with their peers, their students and their daily experience (e.g., Jacobson 2007). Our approach was 1) to investigate the – still underrepresented – perspective of the teacher educators themselves on this issue and 2) to not only chart the goals they associate with student teacher practitioner research but also to study the connections they see between these goals. The aim of our study was thus to clarify what goals are important for student teachers' practitioner research according to teacher educators and how these goals relate in their view. With our findings we aimed to contribute to the discussion on the role of

student teacher practitioner research in the teacher education curriculum and as such to what is essential in becoming and being a good teacher.

2. Three main goals of practitioner research in teacher education

In this study, we consider practitioner research as an umbrella term for different forms of research such as action research, narrative inquiry, and teacher research, each with different backgrounds (Zeichner and Noffke 2001). We use the terms practitioner research and action research interchangeably. Also, we focus especially on the aspects these forms of research have in common, such as (a) student teachers take on a double role as researcher and teacher; (b) research starts from and tries to solve or shed more light on problems or challenges emerging from teaching practice; (c) (student) teachers make use of systematic research methods, and d) they make findings public (Zeichner and Noffke 2001).

In a previous study, Oolbekkink-Marchand, van der Steen, and Nijveldt (2014) studied the quality of practitioner research in relation to the goals of practitioner research. They distinguished between three outcomes or goals of teacher research: professional development, school development, and knowledge that can be generalised to other populations and contexts. Professional development, in that study, is considered as an outcome of improved understanding of an aspect of practice or an improvement in practice (Zeichner and Noffke 2001). Or, stated otherwise, forms of 'local knowledge about practice' which result from inquiry projects in school practice (Cochran-Smith and Lytle 2009). The outcome of school development refers to the transfer of knowledge, methods, and strategies developed and used during and after the research process to change the culture of the school (i.e. Berger, Boles, and Troen 2005). For example, a group of teachers may decide to use, for certain students, a similar pedagogical approach as was developed during a research project. The knowledge outcome refers here to results of the research project that can be generalised to other contexts (Oolbekkink-Marchand, van der Steen, and Nijveldt 2014). The focus is here more on 'public' knowledge about education that can be used in different contexts. As Cochran-Smith and Lytle (2009) suggested it is not so much knowledge by definition 'produced' by university-based researchers and 'used' by practitioners. This public knowledge can be generated in both practitioner and university communities.

3. Tensions between goals of practitioner research in the teacher education curriculum

Although different goals of practitioner research can be distinguished, the main goal in teacher education is the personal professional development of student teachers, according to the review study of Vaughan and Burnaford (2016). The interpretation of personal professional development, however, seems to be, on the one hand, learning deliberately from practice, and, on the other hand, developing a positive stance towards structural inquiry in teaching practice. The question is if and how it is possible to use student teacher research both as a means to develop knowledge and skills for teaching practice and as a desirable quality necessary for future learning or professional development. Ax, Ponte,

and Brouwer (2008) rightly state that ‘if both functions are on the agenda, how can they be put into practice in the initial teacher education curriculum?’

In recent research on practitioner research in the teacher education curriculum (Cochran-Smith et al. 2009; Ginns et al. 2001; Ulvik 2014; Davis, Clayton, and Broome 2018), we found different functions of student teacher research with a focus on research knowledge and skills and a focus on future professional development. For example, Ulvik (2014) addresses both goals in her teacher education programme. In another study, Ginns et al. (2001) address personal professional development in the sense of personal improvement of practice ‘empowering them to seek deep understandings of practice, assert control over their own situation, develop decision-making processes designed to enhance the effectiveness of their own teaching, and encourage critical reflection on practice (Ginns et al. 2001, 116)’. Cochran-Smith et al. (2009) address mainly future professional development in their study on student teachers’ inquiry into student learning. The aim in their programme is that ‘teacher candidates become life-long learners who raise questions and continuously learn how to teach by researching and reflecting on practice across the professional lifespan (Cochran-Smith et al. 2009, 2)’. Davis, Clayton, and Broome (2018) in their study indicate that they focus especially on the process of action research which may have an impact on teachers’ professional identity. They assume that this work has an impact on teachers’ future practice.

Overall, the study we describe here is an exploratory attempt to describe teacher educators’ perspectives on the goals of student teachers’ practitioner research and the relations between these goals, going beyond the practice of their own teacher education institute.

4. Method

4.1. Context of the study

This study was conducted in the context of Dutch masters’ degree programmes for teacher education. In Dutch teacher education, practitioner research is typically taught in a separate course. Important to note here is that this teacher education programme lasts one year and students enter with a master’s degree in a school-related subject. All students thus have finished their master’s thesis and have experience in doing research within their own discipline. Student teachers start practitioner research in the second semester of their one-year teacher education programme. During the whole year student teachers teach in schools while the number of teaching hours increases gradually. Student teachers thus have the possibility to do their practitioner research in their own teaching practice. Student teachers are free to choose a topic related to challenges in their own school practice. Depending on the university, students work alone, or in duos or trios on their research. Supervision of student teacher research takes place mostly at the university and, increasingly, in academic schools. This implies that research coordinators in schools play a role in the supervision of student teacher research, mainly helping students to connect their research project to the school context.

4.2. Data collection

In order to study the position of student teacher practitioner research, we performed an interview study. Eight teacher educators from three university-based teacher education

programmes in the Netherlands were interviewed (see [Table 1](#)). All teacher educators taught various courses in the teacher education programme (such as subject matter didactics, practitioner research or professional learning) and were involved in student teacher research supervision. Interviews took place at their respective teacher education institute and lasted between 45 and 60 minutes. All interviews were audio-recorded and transcribed verbatim. The interview consisted of a limited number of questions related to the main aim of the research component in teacher education such as ‘What is according to you the importance of student teachers practitioner research?’ and ‘In what way does practitioner research contribute to student teachers’ professional development?’

4.3. Data analysis

Analysis of the transcriptions occurred according to the procedure of directed content analysis (Hsieh and Shannon 2005), involving five consecutive steps:

- First, all relevant quotations in each interview transcript were coded, using the previously described broad goals of practitioner research: 1) professional development; 2) school development and 3) knowledge with transfer value. During the coding process, a fourth and a fifth category emerged from the data. These did not refer to other goals but to 4) personal and 5) contextual factors. These factors were spontaneously mentioned as being essential in doing student teacher practitioner research in the context of a university-based teacher education programme. The five categories were used as a starting point for categorising quotations in the interviews.
- In the second step, the categories were refined and subcategories were added. All categorised quotations per the main category were reconsidered to see if subcategories could be distinguished. For example, within the main category of professional development, five subcategories were found. Each subcategory was subsequently described and representative quotes were added.
- In the third step, the first and second authors independently categorised the quotations of one interview transcript to ensure the quality of the analysis. The authors discussed the few differences they found in coding until consensus was achieved. An overview of the broad categories (step 1), subcategories (step2), their final descriptions (step 3), and an example can be found in [Table 2](#).
- In the fourth step, we investigated and categorized the relations between the categories, more specifically the goal categories of student teacher practitioner

Table 1. Description of the participants.

Respondent (teacher educator, TE)	Gender	Research tasks?	Experience in TE _d (years)
TE1	Female	No	14
TE2	Female	No	23
TE3	Male	Yes	12
TE4	Female	No	10
TE5	Male	Yes	6
TE6	Male	Yes	38
TE7	Female	Yes	14
TE8	Female	Yes	11

research. The transcripts were revisited to look for co-occurring categories, overlapping categories or categories that immediately follow each other in the transcript. In these instances, we searched for the possible relations between the categories and we found three types: connections, consequences and 'oppositions'. We added the relation category 'connection' when teacher educators indicated that two or more goals were somehow related to each other, such as, for example, between doing student teacher research and developing an inquiry stance. The code 'consequence' was added if teacher educators described that one goal followed another goal, either in time or in terms of complexity. For example, teacher educators indicated that student teachers should do practitioner research first before they can contribute to policy research in the school. Finally, we added the code 'as opposed to' when teacher educators indicated that two goals could not go together. An example of this is the expression that doing research in your own practice is a totally different practice in comparison to social scientific research. All transcripts were thus studied for related categories and the relations between codes were coded separately. In addition, when teacher educators indicated that personal or contextual factors played a role in the relation between goals, we added this information in the next step of the analysis.

- In the final step, the relations between goals per teacher educator were assembled in a case-ordered matrix (Miles, Michael Huberman, and Saldana 2014). A cross-case analysis was carried out to find possible patterns in the relations between STPR goals (see also Table 3).
- The quality of data analyses was ensured both by independent and consensus coding. Furthermore, the researchers discussed each step of the analysis in order to reach consensus about the interpretation of the data (Miles, Michael Huberman, and Saldana 2014).

5. Results

In the following sections, the results of our interview study will be presented. First, we describe which goals of student teacher practitioner research were mentioned by the teacher educators and which factors they considered to be related to student teachers' practitioner research in teacher education (5.1). Second, we describe the relations between goals as described by the teacher educators in this study (5.2).

5.1. Goals of student teachers' practitioner research

5.1.1. Professional development

In response to the question about the goal of student teachers' practitioner research, most teacher educators indicated its' importance as a contribution to professional development. Professional development as a goal, in its turn, could be divided into five subcategories: 'developing an inquiry stance' (42 fragments), 'learning to do and plan' (15 fragments), 'learning from the subject under research' (11 fragments), 'learning from the process of doing research' (24 fragments), and 'learning to use scientific research' (11 fragments). Descriptions of each subcategory and examples are provided in Table 2. We

Table 2. Overview of categories, subcategories and their frequencies.

Categories	Subcategories	Examples
Professional development [103] ^a <i>perspectives on professional development as the goal of practitioner research</i>	<p>Developing an inquiry stance [42], <i>doing practitioner research contributes to developing an inquiry stance (systematic thinking, conceptual thinking), etc.</i></p> <p>Learning to do and plan [15], <i>learning to do practitioner research and acquisition of research skills</i></p> <p>Learning from the subject under research [11], <i>learning that results from doing research related to the subject studied and related to the student teachers' development</i></p> <p>Learning from the process of doing research [24], <i>learning from the process of doing research related to diverse teaching competencies (such as organisation)</i></p> <p>Learning to use scientific research as a teacher [11], <i>estimating the value of research and to translate scientific research in the classroom</i></p> <p>Future contribution [11], <i>students doing practitioner research can have a function or role in school development in the future</i></p> <p>Usefulness practitioner research [15], <i>Content of research is useful for schools if the quality is sufficient</i></p>	<p>"So, if you perform all kind of activities that foster an inquiry stance, you become better as a teacher." (TE3)</p> <p>'I don't think that teachers should do scientific research for the rest of their career, but they must know the cycle from defining a problem to how do you know which methods you will use.' (TE1)</p> <p>'But relating to the content I would think that it needs to relate to three things, subject matter, subject matter didactics and student learning in your subject area, if you want to contribute to the quality of education.' (TE3)</p> <p>'I consider research as a means for teacher professional development. It strongly depends what kind of research is done by these teachers in school and who supervises that, and what the problems are they study.' (TE6)</p> <p>'I think that teachers have to say for themselves if research has value for their practice or not. For example, that they can say: Listen 10 case studies were performed but you cannot draw general conclusions from that.' (TE3)</p> <p>'I think you can expect from a teacher educated at university that he can contribute to school development once he works in a school.' (TE1)</p> <p>'A lot of research is done currently but it remains a result and that's it. But what you can do with it in practice, there's little attention for that. [...] I think that if teachers do that (e.g. connect research results to practice) it becomes easier, because they are part of that practice.' (Miriam)</p> <p>'I think teachers can contribute to that. To the entire bulk of knowledge.' (TE1)</p>
School development teacher educators [26] <i>perspectives on school development as a goal of practitioner research for student teachers.</i>		
Knowledge [6] <i>perspectives on generalisable scientific knowledge as a possible goal of practitioner research for student teachers</i>		

(Continued)

Table 2. (Continued).

Categories	Subcategories	Examples
Personal factors [22] Teacher educators' perspectives on factors influencing practitioner research by student teachers.	Ability [11], students don't have the ability to learn to do quality practitioner research Motivation [10], the drive students' have to do practitioner research Perceived relevance [12], relevance of practitioner research in relation to teaching job Diversity [11], diversity of students in disciplinary background etc.	But designing a research project themselves is too ambitious for most students here.' (TE8) 'I see that people with whom I performed research, are people who want more and are ambitious. Personally, but also for their subject, they often don't stay in education. They do love teaching that's not it.' (TE3) 'I think that if you did a meaningful research project, that is a prerequisite that students experienced that.' (TE2) 'There is also a big difference between students from different backgrounds, for example for gamma teachers social scientific research is methodologically speaking not new.' (Miriam) 'There are a few, who like to do it and see the use of it and get the opportunity from school. Because if you get three hours a week from school to do research, that's great but three hours is actually nothing.' (TE1) 'It would be great if a student teacher is really interested that on the school where she starts working there would be someone who can supervise practitioner research in their own practice.' (TE8) 'We prefer that they keep it small, for example a small qualitative study on the learning process of students, instead of always looking at the learning results.' (Miriam)
Contextual factors [31] Teacher educators' perspectives on factors influencing practitioner research by student teachers	Time and Opportunity [21], (lack of) time in both Teacher Education and schools to work on practitioner research Supervision [11], importance of quality supervision both during and after Teacher Education Curriculum of Pre-service and in-service education [33], the way practitioner research is positioned in the Teacher Education program School culture [15], The way practitioner research is received and supported in schools	'The culture in schools is very complex for doing research, but it starts to come. There is research in schools anyhow and that is something.' (TE8)

^aNumbers between [...] refer to frequencies of the codes.

Table 3. Matrix relations between goals for student teacher practitioner research.

Respondents	Professional development (PD)	School development (SD)	Knowledge
TE1	<p>STPR is an opportunity for in-depth study (PD subject) CONNECTED TO use of research in practice (PD use) <i>Conditional:</i> curriculum with opportunity for STPR (CF curriculum) STPR is an opportunity to choose a subject for research (PD subject) CONNECTED TO your development as a teacher (PD process) <i>Conditional:</i> dependent on personal ability (PF ability)</p> <p>STPR is an opportunity to learn research (PD plan) As a CONSEQUENCE students can use this at school in the future (SD Usefulness) <i>Conditional:</i> time for research in school (CF time)</p> <p>STPR is an opportunity to learn social scientific research (PD use) as a CONSEQUENCE students can contribute to school development (SD usefulness) And also stay up-to-date in their subject area (SD future) <i>Conditional:</i> depends on time you get in school to do research (CF time)</p>		
TE 2	-		
TE 3	<p>STPR is an opportunity to focus professional development (SD process) CONNECTED to a specific subject (of research) (PD subject) <i>Conditional:</i> diversity between students (PF diversity), STPR in the curriculum (CF curriculum), Experienced relevance of research (PF relevance), attention in curriculum for role of Professional (CF curriculum)</p>	<p>STPR helps acquire an inquiry stance (PD Stance) AS OPPOSED TO fundamental research which has totally different aims (Knowledge)</p>	<p>STPR is an opportunity to gain specialized knowledge as as a teacher (PD subject) AS OPPOSED TO: being a researcher which Is a different profession (knowledge)</p>
TE 4	<p>STPR is an opportunity to do research which as a (PD process) CONSEQUENCE leads to an inquiry stance (PD stance) <i>Conditional:</i> attention for critical and conceptual thinking In the curriculum (CF curriculum)</p> <p>STPR leads to an inquiry stance (PD stance) which as a CONSEQUENCE Makes a contribution to education, the school subject etc.(SD usefulness) <i>Conditional:</i> dependent on the ability of the student (PF ability)</p> <p>STPR leads to an inquiry stance (PD stance) which as a CONSEQUENCE contributes to school development in the future (SD future) <i>Conditional:</i> time (CF time), motivation of the teacher (PF motivation) and diversity between teachers (PF diversity)</p>		
TE 5	<p>STPR offers opportunity to contribute to research in your subject (PD subject) which can be CONNECTED to improving An inquiry stance (PD stance) STPR may lead to exploring research/developing an inquiry stance (PD stance) as a CONSEQUENCE for teachers to 'leave' the classroom and take up a position in the school organisation (SD future)</p> <p>STPR offers the opportunity to do research (PD process) which can be CONNECTED to developing an inquiry stance (PD stance)</p> <p>STPR leads to the possibility for teachers to use research (PD use) And this can be CONNECTED to develop an inquiry stance (PD stance) <i>Conditional:</i> time for research (CF time)</p>		

(Continued)

Table 3. (Continued).

Respondents	Professional development (PD)	School development (SD)	Knowledge
TE 6	STPR offer the opportunity to develop research skills (PD plan) which maybe CONNECTED to developing an inquiry stance (PD stance) <i>Conditional:</i> motivation for research (PF motivation) and experienced relevance of research (PF relevance)		
	STPR offers the opportunity to do research (PD process) which as a CONSEQUENCE Leads to the development of different competences (subject matter competency etc.) (PD subject/PD stance)	STPR lead to the development of an inquiry stance (PD stance) which can be CONNECTED to teachers using this in the future for school development (SD future)	
		STPR leads to the development of research skills (PD plan) and is CONNECTED to the improvementOf education (SD usefulness) <i>Conditional:</i> schoolculture (CF schoolculture)	
TE 7	STPR offer the opportunity to do research (PD plan) CONNECTED to daily practice (PD stance)		
		STPR offers the opportunity to develop an inquiry stance (PD stance) and as A CONSEQUENCE helps teachers to look from a policy perspective (SD future)	
		STPR offer the opportunity to develop an inquiry stance (PD stance) and asa CONSEQUENCE Teachers can contribute to policy-related research within schools (SD usefulness)	
		STPR offer the opportunity to develop an inquiry stance (PD stance) which may Be CONNECTED to larger decisions school-related decisions teachers have to make (SD future)	
TE 8	STPR offer the opportunity to do research (PD process) CONNECTED to student teacher learning (PD stance)		
		STPR offers the opportunity to do research (PD process) which can sometimes be CONNECTED To school development (SD usefulness) <i>Conditional:</i> schoolculture and the way research is led in schools (CF schoolculture)	

found that for all teacher educators ‘developing an inquiry stance’ was mentioned most often and was often related to becoming a better teacher. However, some teacher educators considered a research project not the single or the best way to acquire an inquiry stance. This inquiry stance could be one of the results of the research component in a university-based teacher education programme.

5.1.2. School development

All teacher educators indicated that student teacher research could contribute to the quality of education and school development. ‘School development’ as a category could be divided into two subcategories: usefulness of practitioner research (15 fragments) and future contribution (11 fragments) (see Table 2 for a description of subcategories and examples).

In general, according to all teacher educators, practitioner research can be useful for schools; it can contribute to school innovations and even to the improvement of educational quality. More specifically, when student teachers share their knowledge obtained from practitioner research with experienced colleagues, both student teachers and colleague teachers will learn. The results can then contribute to the quality and development of teaching in the whole school. Quite often, teacher educators also refer to the future contribution of student teachers to innovations in the school. Some teacher educators

indicated that a contribution to school development may be expected from academic teachers.

5.1.3. Knowledge with transfer value

The final question regarded the possible contribution of student teacher research to the scientific knowledge base of education. We found no subcategories within this main category of generalizable scientific knowledge (6 fragments) (see Table 2 for an example of this category). Teacher educators emphasised that the school culture in the Dutch educational system hardly contributes to teachers doing practitioner research, let alone doing this type of research with scientific impact as an outcome. In their view, teachers lack the space to create sufficient mental distance and the time to do such research. For most teacher educators, a contribution to the scientific knowledge base of education through student teacher practitioner research is thus not a reality yet. For some, however, this could become reality, if some contextual conditions would be met in the future, such as sufficient space and time, and other school characteristics.

5.1.3. Personal and contextual factors

None of the teacher educators were entirely positive about doing practitioner research by student teachers. All mentioned personal and contextual factors hindering doing practitioner research and obtaining relevant outcomes. Related to the main category of personal factors, we found four subcategories: ability (11 fragments), motivation (10 fragments), perceived relevance (12 fragments), and diversity (11 fragments) (See Table 2). All teacher educators stated there are huge differences among student teachers' practitioner research projects due to personal factors. Teacher educators indicated that student teachers who are motivated and interested often deliver good quality practitioner research and learn from doing research.

In addition to personal factors influencing and often hindering student teacher research, contextual factors were mentioned. Within this main category, we found four subcategories: time and opportunity (21 fragments), supervision (11 fragments), curriculum of pre-service and in-service education, and (33 fragments) the way practitioner research is received and supported in schools (15 fragments). Also, several teacher educators mentioned the culture in the current Dutch educational system. Teachers are mainly involved with teaching and solving short-term problems; they experience a lack of time to read or to do research. However, most quotations within this category are related to the curriculum in pre-service and in-service education, and the way practitioner research is positioned in the teacher education programme. Teacher educators all said that personal factors such as motivation and interest as well as contextual factors such as time and school culture contribute to the quality of student teachers' practitioner research.

5.2. Relations between goals of student teacher practitioner research

In this paragraph, we describe the relations between goals of student teacher practitioner research as found in the interviews. We analysed the various goal fragments in the interviews looking for different types of connections (see paragraph 4.3). The relation category 'connection' was used when two or more goals were somehow related. The

'consequence' category was added if teacher educators described that one goal followed another goal, either in time or in terms of complexity. Finally, the category 'as opposed to' was used when teacher educators indicated that two goals could not go together.

Except for one teacher educator, all teacher educators described relations between goals of student teacher practitioner research, 26 relations in total. Teacher educators all described multiple relations (see also Table 3), varying from 2 to 4 relations per teacher educator. The relations they described were mainly between the subcategories of the overall goal of Professional Development. The subcategory 'inquiry stance' has a central position and is part of 17 relations described.

With respect to the nature of the relations found, the teacher educators mainly described connections and consequences between goals for student teacher practitioner research. The majority of relations were connections (12). Teacher educators described connections between the different Professional Development goals, and between Professional Development and School Development goals. Below, we will give three examples from the interviews illustrating the connections between goals indicated by teacher educators. Two of the three examples also indicate that some factors are perceived as conditional for the relation (See also Table 3). In the example below from teacher educator 3, the connection is made between professional development through student teacher research related to the subject matter. According to this teacher educator attention for this connection in the curriculum is a condition. This teacher educator also indicates that experienced relevance of student teachers' practitioner research, attention for the role of the professional in the curriculum are important conditions for this connection between professional development and subject matter. Also, in the case of teacher educator 6, conditional for the relation between research skills and inquiry stance is student teachers' experienced relevance and motivation for doing practitioner research.

Examples of Connections between Goals:

Connection: Professional Development (PD) Subject – PD Process (Teacher Educator 3)

I think that what you mainly focus on is the professional development, which I feel is closely linked to this (e.g., doing practitioner research). It also depends on the topic that students choose which competency is influenced. I think that because we have chosen a subject specific didactic approach, I hope that the specialization (e.g., student teacher practitioner research) makes them better subject teachers and in particular didactically better.

Connection: PD stance – PD plan (Teacher Educator 6)

So I think it is at least something that belongs to being a teacher and in particular that as a teacher you are able to analyze your own functioning/work with a little more distance and help you develop it. So that is what the acquisition of research skills should bring about.

Connection: PD Stance – SD Usefulness (Teacher Educator 7)

I often give the example of meetings at secondary schools, where decisions are taken which touch students' lives. For example, whether they will understudy; paths that can be decisive for the further course of their lives. These decisions are based on hearsay and casuistic during these meetings. What I want is that the teachers we train here put their fist on the table and

raise questions about what these decisions are based on. That they do not only use their inquiry stance in their own teaching practice, but also for the whole school and even in a broader way.

There is not one specific connection that is mentioned more often or by all teacher educators; this indicates that the teacher educators in this study differ with respect to the connections they see between different goals.

Also, teacher educators describe relations in terms of consequences (9 consequences), one goal leading to another goal of student teacher research. In a number of cases, we see that doing student teacher research or developing an inquiry stance may have consequences for future contributions of student teachers to school development. In the case of teacher educator 1, student teachers are expected to contribute to school development and keep up with research. Conditional for this is the time they get in their school for working on research. Also, in the case of teacher educator 4, time in schools for research is seen as conditional, and also the motivation of the teacher.

Examples of Consequences between goals

Consequence: SD Future – PD Use – SD Usefulness (Teacher Educator 1)

I think you can expect from an academic teacher in particular that he can contribute to school development, once he starts to work in a school. And also that he can think academically and problem oriented. And learn to do research, which they of course already have learned to do within their own academic discipline. They already did research in physics or something else. But also learning to do research in a social scientific context, in education or domain specific pedagogy; this is the kind of research they have to be able to read critically and to keep up with.

Consequence: PD Stance – SD Usefulness (Teacher Educator 4)

Because doing research contributes to education, the subject, the school in a more general sense. As opposed to when you do not do that, practice will always be much more instrumental and focused on your own small actions. That is where I see a role for academic teachers, because you can ask them to think on a higher level. So I expect students to be capable of this, to have the intellectual capacities for this.

A few teacher educators opposed one goal to another goal. The goals they opposed were professional development and knowledge development. These teacher educators thus perceived student teacher research not as scientific research but as a way to reach other goals, such as gaining insight into teachers' practice, obtaining specialized knowledge in the subject matter, etc.

Examples from 'oppositions' between goals

Opposition: PD Stance and Knowledge (Teacher Educator 3)

I see doing research more as a way to reflect methodologically on your own practice. At least within the type of research I think teachers should do; I do not think that teachers should do fundamental educational research.

6. Conclusion and discussion

To gain insight into teacher educators' perspectives on student teachers' practitioner research we interviewed eight teacher educators from three university-based teacher education programmes. The guiding research question was: What are teacher educators' perspectives on the goals of student teachers practitioner research and how do these goals relate?

Teacher educators mention multiple goals of STPR in teacher education. The main goal of the research component in university-based teacher education is to contribute to the professional development of student teachers. More specifically, it contributes to the development of an *inquiry stance* in teaching. Developing an inquiry stance is, according to these teacher educators, an important goal of the research component in university-based teacher education. This finding is in line with studies such as reported by Ulvik (2014) and Vaughan and Burnaford (2016). However, teacher educators in our study doubt if a research project is the only way to contribute to professional development and to acquiring an inquiry stance. Particularly because student teachers' practitioner research in its current form very often goes along with insufficient time and space for students to really learn from it. Likewise, Ginns et al. (2001) state in their reflection on a collaborative action research project that 'survival is paramount,' indicating that students have other concerns and lack the space for critical reflection. The way student practitioner research is currently positioned, in many cases, does not lead to the professional development teacher educators strive for, such as a stronger inquiry stance (see also Ulvik 2014).

According to the teacher educators in our study, a contribution to school development could be possible under the proper conditions, such as time, space, appropriate supervision and well-established research culture in schools. The goal to contribute to knowledge with transfer value about education is unrealistic, according to most teacher educators. With respect to the relations between the various goals of student teachers practitioner research, particularly various professional development goals are perceived as connected, whereas others are perceived as consequential.

Teacher educators are an occupational group come from different pathways (Davey, 2013), with different disciplinary backgrounds and different experiences with research. Also, teacher educators differ regarding the extent to which they are research-active (Tack and VanderLinde, 2014). These various backgrounds may go along with different perspectives on the goals of student teacher research and especially on what they deem 'proper' research.

In our study, we found that – from the teacher educators' perspective – there can be multiple goals and different relations between these goals, albeit not without frictions in practice. It seems that Ax et al.'s (2008) question still resonates: 'if both functions (e.g., improvement of practice and future learning) are on the agenda, how can they be put into practice in the initial teacher education curriculum?' The question is what this diversity of goals and relations between goals means for the actual practice in teacher education. How does this impact the curriculum and how do other teacher educators perceive these relations in the context of their own teacher education programme? How do students perceive the various goals regarding student teacher research?

This study was performed with eight teacher educators from three Dutch university-based teacher education institutes. The conclusions that can be drawn in this study thus have very limited generalisation power to other teacher educators and institutes. In a subsequent study, we intend to include student teachers and recent graduates as well, so as to also get closer to *their* goals and perceived impact of practitioner research on their professional development, school development, and knowledge. Teacher educators in this study stated that practitioner research may influence the professional development and the development of an inquiry stance. Future research should empirically investigate this assumption. In particular, it should focus on how an inquiry stance is developed and how student teachers' practitioner research may contribute to it.

Finally, this modest study may inform the discussion on the position of student teacher research in teacher education in three ways. First, this study shows that, in the context of student teacher practitioner research, the interpretation of professional development as a goal is not a priori uniform and thus should be better clarified. We would encourage teacher educators to jointly discuss their interpretations of professional development as a goal, to become (more) aware of varieties and to determine to what extent they can co-exist or not (within an institute, board, region) and why (not). Secondly, teacher educators question the value of a research project as a way to develop an inquiry stance; is there room for alternative or additional ways to develop this stance in the curriculum? There are indications that quite different interventions can generate such outcomes as well (Oosterheert, Meijer & van der Neut 2020). Our suggestion would therefore be to explore and experiment creatively with ways to stimulate an inquiry stance, throughout the teacher education curriculum. Thirdly, while teacher educators value the role of student teacher research as a means to contribute to professional development, this may be different for other stakeholders (students, school supervisors, etc.), which puts forward the necessity to discuss and possibly reset or sharpen the goal(s) of student teachers' practitioner research with stakeholders.

Disclosure statement

No potential conflict of interest was reported by the authors.

ORCID

Helma Oolbekkink-Marchand  <http://orcid.org/0000-0001-6315-7652>

Eddie Denessen  <http://orcid.org/0000-0002-4003-2934>

References

- Ax, J., P. Ponte, and N. Brouwer. 2008. "Action Research in Initial Teacher Education: An Explorative Study." *Educational Action Research* 16 (1): 55–72. doi:10.1080/09650790701833105.
- Beckman, D.R. 1957. "Student Teachers Learn by Action Research." *Journal of Teacher Education* 8 (4): 369–375. doi:10.1177/002248715700800408.

- Berger, J.G., K.C. Boles, and V. Troen. 2005. "Teacher Research and School Change: Paradoxes, Problems, and Possibilities." *Teaching and Teacher Education* 21 (1): 93–105. doi:10.1016/j.tate.2004.11.008.
- Bologna Working Group. 2005. "A Framework for Qualification of the European Higher Education Area" Online Report.
- Cochran-Smith, M., J. Barnatt, A. Friedman, and G. Pine. 2009. "Inquiry on Inquiry: Practitioner Research and Student Learning." *Action in Teacher Education* 31 (2): 17–32. doi:10.1080/01626620.2009.10463515.
- Cochran-Smith, M., and S.L. Lytle. 2009. *Inquiry as Stance: Practitioner Research for the Next Generation*. New York: Teachers College Press.
- Cochran-Smith, M., and S.L. Lytle. 1998. "Teacher Research: The Question that Persists." *International Journal of Leadership in Education Theory and Practice* 1 (1): 19–36. doi:10.1080/1360312980010103.
- Davey, R. 2013. "The professional identity of teacher educators: Career on the cusp?," Routledge: Abingdon
- Davis, J., C. Clayton, and J. Broome. 2018. "Thinking like Researchers: Action Research and Its Impact on Novice Teachers' Thinking." *Educational Action Research* 26 (1): 59–74. doi:10.1080/09650792.2017.1284012.
- Dobber, M., S. Akkerman, N. Verloop, and J. Vermunt. 2012. "Student Teachers' Collaborative Research: Small-scale Research Projects during Teacher Education." *Teaching and Teacher Education* 28 (4): 609–617. doi:10.1016/j.tate.2012.01.009.
- Ginns, I., A. Heirdsfield, B. Atweh, and J. Waters. 2001. "Beginning Teachers Becoming Professionals through Action Research." *Educational Action Research* 9 (1): 111–133. doi:10.1080/09650790100200140.
- Hammerness, K., L. Darling-Hammond, and J. Bransford. 2005. "How Teachers Learn and Develop." In *Preparing Teachers for a Changing World: What Teachers Should Learn and Be Able to Do*, edited by M. Darling-Hammond and J. Bransford, 358–389. San Francisco: Jossey Bass.
- Hsieh, H.-F., and S.E. Shannon. 2005. "Three Approaches to Qualitative Content Analysis." *Qualitative Health Research* 15 (9): 1277–1288. doi:10.1177/1049732305276687.
- Jacobson, N. 2007. "Social Epistemology: Theory for the Fourth Wave of Knowledge Transfer and Exchange Research." *Science Communication* 29 (1): 116–127.
- Katsarou, E., and V. Tsafof. 2013. "Student-teachers as Researchers: Towards a Professional Development Orientation in Teacher Education. Possibilities and Limitations in the Greek University." *Educational Action Research* 21 (4): 532–548. doi:10.1080/09650792.2013.851611.
- Meijer, P.C., H. Oolbekkink-Marchand, J. Meirink, and D. Lockhorst. 2012. "Teacher Research in Secondary Education: Effects on Teachers' Professional and School Development, and Issues of Quality." *International Journal of Educational Research* 57 (2013): 39–50. doi:10.1016/j.ijer.2012.10.005.
- Miles, M.B., A. Michael Huberman, and J. Saldana. 2014. *Qualitative Data Analysis: A Method Sourcebook*. CA, US: Sage Publications.
- Oolbekkink-Marchand, H. W., Hadar, L. L., Smith, K., Helleve, I., and Ulvik, M. 2017. "Teachers' perceived professional space and their agency," *Teaching and Teacher Education*, 62, 37–46.
- Oolbekkink-Marchand, H.W., J. van der Steen, and M. Nijveldt. 2014. "A Study of the Quality of Practitioner Research in Secondary Education: Impact on Teacher and School Development." *Educational Action Research* 22 (1): 122–139. doi:10.1080/09650792.2013.854175.
- Oosterheert, I., P. Meijer, and I. Ingeborg Van der Neut. 2020. "Towards Broader Views on Learning to Teach: The Case of a Pedagogy for Learning to Teach for Creativity." In *Education beyond Crisis*, edited by D. Andron and D. Gruber, pp.78–92. Dordrecht: Brill Sense.
- Parkinson, P.T. 2009. "Field-based Preservice Teacher Research: Facilitating Reflective Professional Practice." *Teaching and Teacher Education* 25 (6): 798–804. doi:10.1016/j.tate.2008.11.017.
- Perrodin, A.F. 1959. "Student Teachers Try Action Research: " ... Learning that changes behavior substantially is most likely to result when a person himself tries to improve a situation that makes a difference to him." *Journal of Teacher Education* 10 (4): 471–474. doi:10.1177/002248715901000421.

- Tack, H., & Vanderlinde, R. 2014. Teacher Educators' Professional Development: Towards a Typology of Teacher Educators' Researcherly Disposition. *British journal of educational studies*, 62(3), 297–315.
- Toom, A., Pyhältö, K., and Rust, F. O. C. 2015. "Teachers' professional agency in contradictory times," *Teachers and Teaching*, 21(6), 615–623.
- Ulvik, M. 2014. "Student-teachers Doing Action Research in Their Practicum: Why and How?" *Educational Action Research* 22 (4): 518–533. doi:[10.1080/09650792.2014.918901](https://doi.org/10.1080/09650792.2014.918901).
- Ulvik, M., and H. Riese. 2016. "Action Research in Pre-service Teacher Education – A Never-ending Story Promoting Professional Development." *Professional Development in Education* 42 (3): 441–457. doi:[10.1080/19415257.2014.1003089](https://doi.org/10.1080/19415257.2014.1003089).
- Vaughan, M., and G. Burnaford. 2016. "Action Research in Graduate Teacher Education: A Review of the Literature 2000–2015." *Educational Action Research* 24 (2): 280–299. doi:[10.1080/09650792.2015.1062408](https://doi.org/10.1080/09650792.2015.1062408).
- Westbroek, H., and A. Kaal. 2016. "Leren Onderzoeken in De Eerstegraads Lerarenopleiding [Learning to Do Research in a University-based Teacher Education Program." *Tijdschrift Voor Lerarenopleiders* 37: 5–14.
- Wills, J. S., and Sandholtz, J. H. 2009. "Constrained Professionalism: Dilemmas of Teaching in the Face of Test-Based Accountability," *Teachers college record*, 111(4), 1065–1114
- Windschitl, M., J. Thompson, and M. Braaten. 2011. "Ambitious Pedagogy by Novice Teachers: Who Benefits from Tool-supported Collaborative Inquiry into Practice and Why." *Teachers College Record* 113 (7): 1311–1360.
- Zeichner, K.M., and S.E. Noffke. 2001. "Practitioner Research." *Handbook of Research on Teaching* 4: 298–330.