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Teacher educators reflecting on case-based teaching – a collective self-study

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ABSTRACT

The current study is a collective self-study on how we as 15 teacher educators at a university in Norway tried to improve our teaching through working with cases with the aim of better supporting student teachers in making links between theory and practice. We wanted to address the common criticism in teacher education concerning a perceived gap between practice and theory. Our presupposition was that one way to prepare student teachers for work and bring together theoretical and practical knowledge would be through case-based teaching. We agreed that we wanted to try different ways of working with cases and to follow our own actions with research and conduct a self-study. Throughout the project, each teacher educator experienced to learn about case-based teaching, but our joint learning was limited due to practical issues and lack of time. With teacher education as a shared responsibility, our conclusion is that teacher educators need time to develop as a team, not only as individual teachers.

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Collective self-study; case-based teaching; teacher education; teacher educator

Introduction

The current study is a collective self-study on how 15 teacher educators at a university in Norway tried to support our students in linking theory and practice through working with cases. An increased focus on research and time used for administration and logistics made us decide it was time to pay attention to our teaching and to improve it. During recent years we had experienced that while student teachers valued field-practice, they were more critical towards theory, here understood as research-based knowledge communicated at the campus. The challenge thereby was to make our teaching more meaningful to student teachers and help them see a connection between practice and theory. Our challenge is not unique. A common criticism among student teachers is a perceived gap between practice teaching (knowing how) and the university coursework (knowing that) (Korthagen 2010, Kvernbekk 2012, Finne *et al.* 2014). We agreed that we wanted to address this criticism collaboratively and, as recommended in the literature, use cases as a way to interlink practical and theoretical knowledge (Gravett *et al.* 2017). While the research literature often emphasises students' learning outcome from working with cases, the current study focuses on teacher educators' role in *facilitating and reflecting on* the students' learning process.

The research question is:

How can we as a group of teacher educators support student teachers in interlinking practice and theory through case-based teaching?

Although practice and theory should be linked, we understand the relation neither as a dichotomy nor as something forming a harmonic unit (Kvernbekk 2012, Ulvik *et al.* 2018). The two constitute

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different epistemologies and parts of professional competence (Elstad 2010). While practice might provide a deeper understanding of the abstract theory, the theory might conversely offer a critical view of the practice (Ulvik 2014). Connecting the two facilitates the development of professional knowledge and marks a starting point for further professional development.

Background

Self-study

In order to enhance our learning outcome, we decided to follow our implementation of case-based teaching with research – in other words, conduct a self-study. Research on our own practice is a way to combine teacher educators' roles as practitioners and researchers (Cochran-Smith 2005). Furthermore, connecting practice and theory in our own teaching made it possible to be models for student teachers. Through a collective study, we wanted not only to enhance the individual teacher's teaching but also to develop our community as teacher educators as well as contribute to the body of teacher education research. A reason for the approach was our diverse backgrounds and thereby possibilities to learn from each other. Self-studies are part of the wider concept of practitioner research. The approach builds on similar principles as action research, an ongoing process of planning, acting and evaluating in order to inform and challenge previous practice (Ulvik *et al.* 2018). Self-studies are about teacher educators researching their own practice. Still, to be acknowledged and to generate new knowledge, self-studies need to move beyond local practice and be integrated with research on a national and international level. Zeichner (2007) criticises that little attention has been given to the cumulative effect of knowledge that can be created across individual studies.

Following Kemmis (2010), a collective study of teachers' own practice is a self-reflective enquiry that includes a variety of perspectives. We wanted to open a space in which we could reflect upon our practice and learn from it. Furthermore, we wanted to add to our joint learning by including perspectives from the literature, as well as listen to student teachers' voices via course evaluations that were collected orally in seminars and anonymously in an on-line questionnaire.

The importance of collaborative reflection and learning is based on the assumption that our own practical reasoning is tested and might develop through interactions with others. By creating a reflective space and talking with colleagues, teachers may become more aware of what underpins their own practice (Penlington 2008). However, the outcome of conversations with colleagues cannot be taken for granted. Colleagues need to challenge each other, but not in a way that creates a polemic context where participants are focused on defending themselves more than on listening (*ibid.*, Junge 2012).

Working with cases

The rationale behind using cases as a way to improve our teaching was based on the fact that we already had some experience with case-based teaching and thought it had a great learning potential. However, none of us were fully satisfied with our practice so far. Student teachers seemed to enjoy working with real situations from school and found it useful. However, it was a challenge to support them in linking practice and theory in their discussions and to move beyond the descriptive story. We wanted the students not only to discuss how they would choose to act in a particular situation, but also to give reasons for their actions underpinned by theory, and to discuss alternative solutions.

Case methodology is used in different professional studies, and the conceptual framework and purpose of it may vary. Within the field of teacher education, we find different descriptions of what a case is, like realistic examples, a true story, real-world examples (González-González *et al.* 2014, Walther 2016, Gravett *et al.* 2017). Cases are often presented as written or oral narratives, but case design may use other media as well, for example, videos (Merseth 1996, Blomberg *et al.* 2013, Piowar *et al.* 2018). Cases can be presented and facilitated by teacher educators or they can be

written by student teachers based on their experiences from the practice field (Hammerness *et al.* 2002, Levin 2002). Merseth (1996) describes three different purposes for using cases in teacher education: First, to explore complex and messy problems, second, to work as examples, and third to stimulate personal reflection.

As part of an inquiry-based approach, we chose a rather eclectic way of using cases and understood cases as real or realistic situations from the practice field that were presented and discussed at the campus. Different notions were used as synonyms. The cases we used followed two common approaches: brief vignettes or rich, complex and holistic narratives (Florez 2011). They were presented orally, in written texts, or through film clips/videos.

The research literature provides several positive outcomes for case-based teaching. It is regarded as a way to prepare student teachers for work, to bring together theoretical and practical knowledge and get a nuanced understanding of the complexity in teaching (Merseth 1996, Gravett *et al.* 2017). Furthermore, cases may prepare for uncertain practice, and for situations that cannot be experienced in teacher education (Merseth 1996, North and Brookes 2017). Cases can serve as ‘emotional hooks’ that engage and motivate student teachers and support them with an affective as well as a cognitive outcome. Finally, analysing cases can promote analytic and critical thinking (Gravett *et al.* 2017). Through working with cases, student teachers learn to identify a problem and become aware of different perspectives that are crucial for teachers’ critical thinking (Harrington 1995). Case-based teaching can also provide insights into student teachers’ preconceptions of teaching. From all their years as pupils, they implicitly think they know how teachers act. Case-based teaching prompts student teachers to reflect on their fixed ideas and exposes them to different interpretations of complex situations (Gravett *et al.* 2017). Drawing on Bourdieu, Thomas (2011) argues that working with cases in ways that include theoretical perspectives may provide student teachers with ‘thinking tools’ that can support them in practical situations later on (p. 515).

Literature underlines that cases should be an integral part of a course (Gunn *et al.* 2015). A case should be open and thereby invite discussion without being too general. Many details, however, might disturb the focus (Michelet and Eri. 2016). Using case-based teaching, teacher educators also need to consider group processes among student teachers and their prior knowledge (*ibid.*, Florez 2011). One way of working with cases that were applied in our teacher education is to let student teachers write their own cases. Writing about their own critical incidents might help students to learn from their experiences, to work through their feelings about these incidents and to understand the value of reflection (Levin 2002).

Based on the relevant literature, we knew that using cases may have many benefits. However, it was not obvious how we should work with cases to achieve positive outcomes and to connect practice and theory. Our scope was, therefore, to investigate how we could achieve the positive outcomes of working with cases as a group.

The study

The context

The study was conducted in Norway among teacher educators who taught pedagogy (general didactics/educational theory) in two different teacher education programmes at the secondary school level. In Norway, teacher education is expected to be relevant for the practice field *and* to transmit research-based knowledge (Kunnskapsdepartementet 2017). As a consequence of the policy focus on research, the way to get a permanent position in teacher education tends to be a doctorate rather than having teacher qualification and experience (Elstad 2010). Working with cases from a practical and theoretical perspective, was a way for us to interlink the fields of research and teacher experience. The study was conducted within a one-year postgraduate teacher education programme, and a five-year integrated programme leading to a master’s degree. In the first programme, pedagogy is offered in two courses; in the second programme, in four courses. In order to improve our teaching through

a collective self-study, we decided to implement cases in all the courses (five) that took place during the chosen semester. Teaching in the courses is divided equally between plenary lectures where different topics are presented and seminars in groups with about 20 student teachers where the topics are discussed and elaborated. The size of the courses differs (from 4 to 10 seminars + lecturers). Furthermore, most of the teacher educators teach more than one course, and the seminars as well as the lectures are divided among the staff. Every seminar group is taught by a teacher educator.

The sample

The sample consisted of all the teacher educators who taught pedagogy during the chosen semester, seven males and eight females. The group had varied experiences and backgrounds in terms of school practice, PhDs, experience from teacher education as well as different working conditions; some had permanent jobs (those with a PhD), others taught part-time in temporary positions (either PhD-candidates or teacher educators who had their main position at a university college). Everyone in full-time permanent positions had research as part of their job. Each course was taught by a team who planned the teaching together. The number of teachers in the teams varied from 2 to 8 depending on the number of students attending the course. The teams as well as the whole group of teacher educators had regular planning meetings during the semester.

The self-study process

The case project started the semester before the implementation with a whole day seminar in which we reflected on our teaching and discussed how to improve it (see [Table 1](#) for an overview of work process and collection of data). During the semester we established three groups that should prepare the implementation of case-based teaching the following semester. One group focused on the theoretical background for case-based teaching and provided a theoretical basis for the project. The second group focused on how to implement cases in the seminars and developed some guidelines for student teachers. The third group planned how we could follow our own practice with research. Based on input from the groups and various curriculum plans, the teams had to plan the different courses for the coming semester. When the semester started, the staff had changed, but the group that had started the project assumed that a structure with teams and fixed meetings should make it easier for newcomers to be included. Each team was led by an experienced teacher educator. Towards the end of the semester, we had a meeting among all the teacher educators during which we exchanged experiences from what we had done with cases and how it was evaluated by the students. The last part of the process was to finish logs that we were supposed to write during the implementation phase and to start writing an article – a consequence of choosing a self-study approach to our teaching.

The collected data consisted of varied documents developed during the project (see [Table 1](#)), such as minutes, logs and written material from the initial group work. Furthermore, we audiotaped two meetings, one in which we exchanged experiences and evaluated the semester and one meeting where we discussed the first draft of the article. Finally, we collected student teachers' evaluations of the courses, oral feedback as well as anonymously written evaluations. Loughran (2010) states that making self-studies acceptable as research is a matter of rigour, method, analysis and of new knowledge and its significance. However, it is not always easy to study one's own teaching as a group. Teacher education can be messy and sometimes have conflicting goals. Teaching is one goal; research is another. In our case, the courses had their unique curriculum plans that should fit into the project, and the teacher educators had different preferences based on backgrounds, experiences and working conditions. Doing a collaborative self-study was therefore not a straightforward path to go, but could be beneficial if we were able to include the diversity of perspectives and experiences into one study. Diversity, according to Kemmis (2010), is a characteristic of a collective self-reflective inquiry.

Table 1. Overview of the self-study process among teacher educators.

Time	What	How	Data
January 2016	A whole-day seminar	Reflecting on our teaching Decided to work with case-based teaching	Minutes from the meeting
Spring 2016	1) Group work in three groups (theoretical basis) 2) Input from others experiences 3) Planning in the course teams	Established three groups that should prepare the work Group 1: How to work with a case (theoretical background) Group 2: How to use cases in seminars (a practical perspective) Group 3: How to research our own practice The group work was distributed to the staff-members Lecturer about problem-based learning Discussing how to implement case-based teaching into courses Presenting the project and the group works, planning the term	Written texts from all the groups Curriculum plans
August 2016	Meeting (planning)	Trying out case-based teaching Writing logs	Minutes from the meeting
Autumn 2016	Implementing-phase	Discussions in the teams Presenting: What has been done How did it work out? Student teachers evaluation The teams finished their logs and send them to the first author	Logs Minutes & recording Course evaluation from students
December 2016	Meeting (evaluation)	Writing process among teacher educators from the courses	Finished logs from teams Draft of article Audio-taped meetings Draft of article Drafts of article The finished article
Spring 2017	1) Collecting logs 2) First author starts to write a draft of the article		
Autumn 2017	Meetings /writing process Writing process: drafts and comments/feedback – no meetings Submitting the article		
2018 2019			

The use of cases

Due to teacher educators' autonomy, our eclectic way of understanding cases and different curriculum plans, cases were applied in a range of different ways in the programmes. Table 2 gives an overview of how the main cases were used in seminars as part of our intervention. Additionally, we also used cases in forms of short vignettes or video clips as often as we found it relevant. Furthermore, even though we presented some cases in plenary lectures, either as illustrations or for discussion in summary report groups, it was the use of cases in the seminars that was investigated.

In order to help students interlink practice and theory, guidelines were developed the semester prior to the implementation. The guidelines were more or less the same on all the courses and asked students to identify the problem(s), analyse the situation and map possible solutions in the different cases presented to them. Then, they were asked to generalise, expressing what teachers could learn from the case, and to relate the case to theoretical perspectives/concepts. Thereby we aimed to facilitate a transfer value to new situations.

In most courses, the cases were written or chosen by teacher educators. In the first course in the integrated programme, however, the student teachers wrote and analysed their own cases based on observations in schools. The main focus of the analysis was related to observation methodology, but students were also asked to discuss the case in light of the course literature.

Often the students worked with different cases that gave access to different themes and perspectives. In one course, the students worked with the same video-case, but in different ways giving access to different representations.

Being part of the same programmes, we could not act only as individuals. While we as teacher educators previously had used cases more or less ad hoc and incidental, we now wanted to explore what a good case is and how it should be presented to support our aim.

Considering varied needs and abilities among teacher educators in creating and presenting cases, we, therefore, established a file on the intranet where we collected the different cases we had used as a common resource. Using cases in all the courses, we were aware that we needed to cooperate to secure variation and progression in students' work.

The analysis

There was an open invitation to participate as co-author in the current article; however, it was teacher educators with permanent positions and research as part of their job who in the end chose to contribute. Following Hatch (2002), we chose to combine a thematic and an interpretative analysis of the data. The approach implied that we read the written and audiotaped material, first as a whole. Then, we conducted a thematic and data-driven analysis focusing on common themes (Braun and Clarke 2006), alternating in a hermeneutic movement between parts and the whole, between working

Table 2. The use of cases.

	Use of cases
A)	<i>Working with different cases over time and based on theoretical preparation:</i> The students were divided into groups and each group worked with different written cases. Seminar 1: introduction, presenting goals and guidelines, given homework Seminar 2: working with the cases and developing a presentation Seminar 3: presentation and discussion
B)	<i>Writing their own cases:</i> Student teachers in their first term wrote their own cases based on a one-week observations practice. The cases were presented and discussed in the seminar group.
C)	<i>Working with the same video case:</i> Students were presented to a video-case accompanied with guidelines for how to work with the case and literature to support their work. Groups of students discussed and prepared presentations of the case as homework. In the next seminar, they presented and discussed what they saw as the problem and solution of the case.
D)	<i>Working with a case as introduction to a course:</i> A written case was presented and discussed, first in groups, then in a plenary session in an introductory seminar.

individually and as a collective. What we present as findings is what came up in a moderation process in meetings where we discussed the themes and chose quotes as examples of the themes. In the writing process, the first author wrote drafts of the article, while the co-authors gave oral and written feedback. During the process, we had meetings and discussed our paper. The writing process among a group of busy teacher educators took time but was crucial when it came to moving beyond our local practice and acquiring an abstract understanding of the use of cases that gave our learning transfer value.

Results

The study was about how we as a group of teacher educators could systematically use case-based teaching in a way that supported student teachers in connecting practice and theory. In the following, we will first present what we learned from working with cases, and next what we learned from doing a joint self-study.

Working with cases

Purpose

Aiming to interlink practice and theory, the use of cases became central in the seminar groups. One teacher educator describes cases as the closest one can come to life in classrooms when being at the campus. Another states,

Teacher education becomes practical and not only theoretical. What are you supposed to do as a teacher? The profession consists almost exclusively of cases. You are faced by dilemmas all the time, some more serious than others.

As we became more attentive to the purpose of case-based teaching, we presented and discussed this purpose with students. A mutual understanding of what we were about to do was developed in the seminar groups: it is not merely about telling good stories from the classroom, but to learn from them in a way that has transfer value. Two students wrote in the evaluation:

It makes it possible to discuss practical experiences and connect them to theory from the course.

It (cases) provides a better understanding of theory as well as of practice. It made me want to read relevant theory.

Previously our expectations towards working with cases were implicit and we found that student teachers often discussed cases on a superficial level and without including theory or research. Now we became able to express our aims and we explicitly invited students to discuss alternatives and to give reasons for actions underpinned with theory through the guidelines.

Choosing a case

Throughout the project, we found that a good case should include the necessary information to create an understanding of the situation, be connected to the course and trigger discussions. Furthermore, it seems important that cases are not idealised or 'spectacular' situations but that they also problematise what is ordinary and easily taken for granted. A student describes it like this: 'I like to learn about something that did not work well. Then you feel less as a failure yourself.'

The quote might support that use of cases is not only about linking practice and theory, but also about preparing students for what is unexpected in teaching. A student explains a shared understanding of this benefit: 'One becomes better prepared for sudden incidents'. Furthermore, we learned that ad hoc cases with limited time for reflection also had their value. The unprepared discussions made students reflect on previous experiences and helped them change the perspective from being taught to becoming a teacher. Through cases they were forced to think things through,

things that they had never thought about and that provided them with a deeper understanding of the profession.

Some teacher educators had often used cases based on their own experiences as school teachers, a technique that was now challenged:

I have used cases quite a lot and have always had a positive experience. They have often been based on questions and problems I have experienced myself. Then the students have been interested in how things turned out, in the solution. It has been difficult to come up to the level where they draw on theory.

This teacher educator experienced that using her own cases might hinder a more inquiry-based approach among the student teachers. Another teacher educator had a similar experience:

Now I try to tell less about my own choices. I also try to make cases richer by including elements that were not there, but that could have been there, to further protect my former pupils' anonymity.

The second teacher educator found that adding elements might make the cases more focused and more relevant to the specific course, which was perceived as a success factor. Furthermore, in doing so, she also protected involved parties' anonymity. Making a case richer and more relevant to the specific course could be beneficial as well as challenging as illustrated in the following quote:

It demands more sensitivity from the student teachers to work with long and rich cases, and more creative thinking to analyse the situation and shed light on it.

Rich cases might provide fruitful discussions, but longer narratives sometimes created speculations about the information that was not included instead of discussing crucial aspects in the case. The students, however, express that they sometimes lack information, that not all situations are easy to connect to theory and that there could have been more focus on solutions. They find it interesting to discuss alternatives but argue that in the end a teacher has to choose and make a decision. Furthermore, the way a case is written seems to influence the discussion. One teacher educator who had rewritten a case several times underlined this point. However, what works in one seminar group might not work in another. Teachers always have to be sensitive and adapt their teaching to the group of students, something that made it difficult to expect that everyone in our teams should use the same cases and in exactly the same way.

The teacher educators teaching the students who wrote their own cases learned that it was hard for newcomers at the university to link the descriptions to the literature and to view a case from a theoretical perspective:

Our first year students had their observation early in the term [...] We saw that they needed time to be able to discuss situations from practice in light of theory.

In the future, the teacher educators would like to help students to understand more about the case method and about how to discuss a case highlighted by theory. One suggestion is to provide students with examples of cases and to discuss cases in seminars before they are asked to collect and write their own cases. Another suggestion is to introduce case-based teaching gradually, which is an opportunity in a programme with four following courses – presupposed cooperation among the involved teacher educators. The teacher educators' perspective is supported by a student: 'Case is a way of working that we have to learn. We should have started with it from the first course.' Starting with cases from the beginning of the programme and learning gradually to connect them to theory seems to be a common point of view among students.

Supporting students

Providing students with guidelines on how to work with cases seems to make a difference. One teacher educator describes:

What we did this time – giving the students some guidelines they had to follow, made the work more systematic, something I had missed previously. The students really had to delve into literature and policy documents to find their reasoning. I also think that when it comes to reflection it was a good idea to give it time.

Teacher educators saw that guidelines and extra time added to the students' learning outcome. However, in courses with few seminars, time was a limited resource and it became even more important to see the courses in the programme as a whole, and not as separate units depending on one teacher educator.

A question related to the working process was how much one should interfere. One teacher educator recalls how he intervened during the group work:

I try to get into all the groups and participate in the discussion and try to provide a direction. And when we arrive there, I open up a new scenario. And when they start to get frustrated, I leave.

Another teacher educator says that she had to remind the students to concentrate on solutions relevant for a teacher. When assessing a case from the outside, one can easily treat it as a theoretical or general problem or discuss solutions that are outside a teacher's mandate.

One teacher educator experienced that concepts presented through a scientific article and discussed in a lesson offered a framework that added to the case discussion. She describes:

A common problem for me has been to relate the cases to theory. Now I had prepared for a theoretical part and planned to include something about micro aggression related to the first case, and rhetoric related to the second. At the same time, I will try, there and then, to connect theory to the aspects mentioned by the student teachers.

The teacher educator learned that the theoretical approaches need to be planned, and that providing students with relevant concepts was one way to support their processes.

While some teacher educators intervene in the students' processes, others save their comments until a concluding discussion. However, for some teacher educators, plenary sessions in the seminars could be a challenge. Especially for new teacher educators and for teacher educators without school experience, it was difficult to lead the discussion. One teacher educator asks: 'What is good feedback? What are good questions? How can I challenge the students further?'

The discussions among student teachers depended on cooperation in the group of persons involved. One teacher educator writes in her log about how some of the participants seem to choose a distant and disengaged attitude towards cases. They were occupied with lack of information in the given case. Another group working with the same case was able to think as if they were teachers who had to act, and at the same time to take on an analytic and more distant perspective as student teachers. In a final seminar, the groups presented their results through role-plays, creative use of PowerPoints or mini-lectures. The teacher educator describes:

One of the best moments was when one of the most critical students leaned toward me as if we were teacher colleagues listening to pupils' presentations and said, 'It is so lively, do you notice how alive it is?' Then I found it was all worthwhile, everything, the frustrations, unreasonable critics, a lot of preparations and worries about how it would work.

In a process that was allowed time, the students had changed, and the teacher educator experienced that students can learn from each other and contribute to each other's learning outcome. It is not only the teacher that might facilitate learning. Peer support is crucial.

The logs indicate, furthermore, that working with cases can contribute positively to group processes and the atmosphere among the participants. Cases often engage student teachers and make them participate and thereby build relationships. In one of the courses, the students worked with a case already during the first seminar. Judging from what the teacher educators report, it was a successful way for students to get to know each other. Even if they were not ready for linking practice and theory, the case generated interest, and thereby brought students to the literature and introduced some new concepts. Also, the students agree that cases promote discussions and make

them engaged, as illustrated by one of the students stating that: ‘The students become engaged and everyone contributes. In that way cases builds relationships’.

In a course where students discussed the same case, they presented their work in a variety of ways. They used PowerPoints, Prezi, cartoons, role-playing, Flinga, or questions to the audience without visual effects. The presentations raised several questions, covered a range of themes and provided good discussions. One of the teacher educators describes,

Some of the groups asked questions directly related to the video, while others used the video as a stepping-stone to something they found interesting. In that way the presentations became varied and engaging and it added to the quality of the discussion.

Stories have various entrances, and even working with the same case may open a space for student teachers’ independent development.

Most students recommend the use of cases without reservation. However, the project taught us several lessons in terms of how to use cases in the programmes in the future. We found it necessary to have a common purpose and share it with our students, and further to present cases that trigger discussions. Acknowledging these thoughts we found it useful to have a collection of cases to build on and to share ideas. In order to facilitate deep reflection, we found it useful to provide students with guidelines and sufficient time to plan for the theoretical approach and to open a space for students’ self-selected contributions. The theoretical approach should be in line with the course literature, the lectures, and the exam, and there should be a progression in what we ask from students. All these aspects demand collaboration among the staff with shared responsibility.

Still, the individual teacher educator needed a professional space to make his or her independent judgements to decide what might work in the specific seminar group. Thus, we had to balance between individual freedom and acting as a group.

Through working with cases, we started to question the course literature and how the literature contributed to students’ understanding. In retrospect, we would like to evaluate how to work with cases more thoroughly and learn more about how the students value our joint approach and what they find useful or not. We realised how important it is that the different parts in teacher education should be connected. For the future, we want to improve the connection between these elements. The process has already started, and we have now included cases as part of an exam in each of our two programmes.

Conducting a self-study

The project put case-based teaching on the agenda and made us aware of aspects with our practice that we had never discussed. Discussing the purpose and outcome of case-based teaching, we got, to a certain degree, access to each other’s perspectives. Consequently, the courses in each programme became more coherent. On the one hand, it can be useful to include different perspectives and learn from each other; on the other hand, it can be complicated to agree upon and carry out a joint project combined with the usual workload. Facilitating professional development at the same time as we should uphold our usual workload came across as a challenging endeavour. What eventually happened was that we used cases and supported students in various ways in the different courses. The individual teacher educator did not know, exactly, what went on in the different seminar groups because we did not observe each other. Even if teacher educators in the same team developed and used the same cases in their groups, every lesson is unique. Turnover in the staff, change in leadership and colleagues in temporary part-time positions added to the challenges in conducting a joint study. Our actions became less systematic than we had imagined. Still, our project resulted in a wide range of experiences: from using different kinds of cases, and from different ways of supporting students. However, we did not utilise the different experiences as a resource for mutual learning. The team meetings most often focused on practical issues and at the end of the term when we shared experiences, we did not elaborate on the experiences or challenge each other.

During the project, we developed a practical and theoretical basis to underpin the use of cases. We learned from the preparation phase, from joint planning and sharing of experiences and from writing an article together about our approach. For many of us, the project implied a changed or adjusted practice. However, the group of teacher educators who started the process were not the same group as those who implemented it. Some of the permanent staff had left the programme; others were new in the programme or had only temporary, part-time positions. As a consequence, the ownership of the project and the learning outcome varied. In retrospect, we could have been more aware that every semester is a new beginning and not only a continuation of the previous. In our case, the staff, the teams and the students changed, but we did not address the implications of these changes.

The self-study process revealed that we needed time for cooperation, but found it hard to find and prioritise time because of different time schedules, time pressure, and the fact that it is research more than teaching that counts at the university (Macphail *et al.* 2018).

Discussion

In the following, we will discuss what we wanted to shed light on through our research question: How we as a group of teacher educators can support student teachers in interlinking practice and theory through case-based teaching.

A collective study

Working as a group, we could learn from each other (Penlington 2008). However, the question is if we were able to utilise the learning potential of our conversations. Even if we exchanged experiences, we have to admit that our discussions were descriptive more than explorative (Junge 2012). Following Penlington (2008), the best way of our own assumptions in dialogue with others is when there is a climate of acceptance and trust in a group. Even if the atmosphere in our group was pleasant, we did not know each other very well. Some members were new, others had not cooperated before, and the participants' experiences and competences varied. As a consequence, we did not challenge each other's practices. Without being challenged, it is easy just to repeat or adjust what one already knows (Junge 2012). It might have been easier to challenge one another if we had time to develop the group climate and to observe each other. However, with time as a limited resource, it can be difficult to join in-depth discussions when there are a range of practical issues to clarify. Therefore, the possibilities for development and change were reduced.

For inexperienced or new teacher educators' it can be demanding to become part of an ongoing project. One teacher educator said that he had more than enough to do to 'keep his head above water' in relation to the curriculum, let alone participate in a complex and challenging case project. Our way of organising teacher education in smaller educator teams seems helpful. Being part of a team makes it possible to share experiences and thereby create knowledge as a collective. Nevertheless, the teams need time to discuss more than just practical issues. Furthermore, considering changes that often occur when a new academic year starts, we should have restarted the project – built on our previous preparations.

Some factors seem to contribute to a joint understanding. One was that we had a shared responsibility for the programmes and had to make sure that the different parts fitted together. Another was that every course was run by a team of teachers that had to plan a common reading list and curriculum plan. Furthermore, the fact that we shared cases in a common file and eventually included cases in one of the exams in both our programmes added to the group approach. However, we saw that there also needs to be a professional space for the individual teacher when it comes to choosing cases and deciding how to work with cases in a specific group.

Supporting students

A great revelation for us was the impact our facilitation had on student teachers' discussions. Simple facilitations like giving them time and expecting preparation had an effect. In retrospect, we see that unprepared, on-the-spot discussions that frequently characterised our previous practices could hardly promote in-depth discussions. However, we learned from the students that also the short and ad hoc cases had a value in activating and elaborating previous experiences and create engagement and interest (Gravett *et al.* 2017). Additionally, we understood that it is not enough to plan the cases, we also need to plan what literature and theoretical concepts we want to accompany the cases. Furthermore, it is important what we ask the students to do. Guidelines for the work made it easier for them to learn from cases – instead of getting caught up in discussions and frustrations over what they were supposed to do (Harrington 1995, Mostert 2007).

Connecting theory and practice

While case-based teaching for many of us had been a way of illustrating situations from practice, we now explained the rationale behind case-based teaching for the students. If we expect student teachers to give reasons for their practice, we as teacher educators should be able to model how it can be done (Lunenberg *et al.* 2007). However, in many cases, teacher educators' decisions are not underpinned by theory. They rely on their personal experiences, implicit theory and common sense and do not make modelling explicit (*ibid.*, Ruys *et al.* 2013). With implicit modelling, student teachers might not recognise the examples. Consequently, it was easier for our students to understand the rationale behind cases and to benefit from working with cases when we explained the approach.

From the literature, as well as from our experiences, we saw that cases can serve different purposes. We found that cases contributed to all of Merseeth's (1996) three purposes: to explore complex situations, to work as examples, and to stimulate reflection. Working with cases is to experience the effect of taking a step back and giving reasons for actions and considering alternative solutions (Harrington 1995). The study showed that the in-depth discussions we asked for are not necessary for all cases.

However, what we especially wanted to investigate was how cases could contribute to *connecting practice and theory*. In that respect, cases can strengthen student teachers' *reflections* and their ability to think from a teacher's perspective. Vicarious experiences might extend the repertoire (Gravett *et al.* 2017), and invite students to reflect on something they have never questioned before. Practice is uncertain and one cannot experience everything oneself (Merseeth 1996, North and Brookes 2017). However, thinking like a teacher is not always easy for students without teaching experience. They bring with them preconceptions of teaching that can obstruct their ability to imagine alternatives. In our study, some students chose a distancing attitude while others primarily saw challenges in the case as something that requires a quick practical solution. Reflection, however, is a contextual processing activity either related to imagining a way forward or a conscious attempt to learn from what has happened in the past (Korthagen and Vasalos 2005, Klemp 2013). It involves more than describing what has happened and thinking it through. Then, theoretical concepts and reflection as a joint activity can contribute to move beyond one's own preliminary understanding (Nerland 2006).

Working with cases might have *transfer value* to student teachers' own practice in different ways. They can be prepared for similar situations in their own teaching, and they can provide pupils with narratives that might work as the 'emotional hooks' we mentioned earlier (Gravett *et al.* 2017) or give examples that can make the theory less abstract (Hammerness *et al.* 2002). In the project, the students experienced the meaning of linking theory to real situations and the engagement it entailed. However, the transfer value to their future practice is something that needs to be investigated further.

In the literature, cases are defined in different ways, but we learned from our experiences that a fixed definition is unnecessary – different formats work. However, we learned that cases should be carefully collected, and found it useful to have a common ‘bank of ideas’. Further, it was advantageous to work together to secure progressions and avoid repetition. Furthermore, it is not sufficient merely to trigger discussions. To avoid fragmentation, each case has to be adapted to the aim and the content of the course (Mostert 2007). By adding to the case, it was possible to make it more focused and adapted to the curriculum. Finding suitable cases, however, seems to be a never-ending story. Even if we collected and developed cases together, a challenge in our project was to get access to good cases from recent practice. One solution is to use students’ own cases; another is to extend the group of teacher educators and cooperate with our school-based colleagues and learn from their experiences.

Concluding comments

In our collective process, we learned more about how to use cases in a beneficial way in our teaching, but we were not able to fully utilise the possibilities that collaboration might imply. We saw in retrospect that we could have benefitted from observing each other and challenging each other more than we did. Exchanging ideas gave new perspectives, but might not challenge preunderstandings. For that to happen we need to develop a teacher community where participants know each other, have a mutual ownership to what is going on and feel free to speak.

Teacher education is complex and often fragmented, but teacher educators have a shared responsibility that makes it necessary to work together (Ulvik and Smith 2019). However, there are many practical issues that need to be solved and not always time or institutional support to develop teaching. In a university context without any pay off in teaching in the form of merits, it is not sufficient to be idealistic. One also needs to consider the offered institutional framework and working conditions. We found that working with cases had a potential to interlink practice and theory. However, thinking about something, is different from doing it. Even if our students developed their thinking by reflecting on cases, we do not know if it will impact their teaching. Teachers tend to teach as they are taught, and it is easy to adapt to the culture at a workplace (Lunenberg *et al.* 2007). If cases should have an impact on future practice we see it as important to move beyond the specific cases and give it transfer value by developing an abstract understanding of the case through connecting practice and theory – two epistemologies that can challenge and complement each other. While teacher educators at the university are familiar with theoretical perspectives, schoolteachers might help to create and collect realistic cases and add to the discussion by their experience-based knowledge. In education with shared responsibility, it is not sufficient that individual teacher educators develop; they need to develop as a team. Including schoolteachers as part of the team could bring more perspectives to the table and challenge the group of university-based teacher educators even more.

Disclosure statement

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