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# In the Tension Between Idealism and Practicality – Student Teachers' Meta-awareness of Learning and Teaching

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**Abstract**

*Despite the fact that a recurring criticism is directed towards the academic part of teacher education, little research has focused on student teachers as they engage with their academic studies. Reporting on a study of 53 Norwegian student teachers, this article explores how student teachers talk about learning and teaching. The study draws upon perspectives from research on conceptions and beliefs as well as more recent developments in academic literacies. The findings reveal that the frequently used claim that student teachers have narrow views of teaching and learning is not supported in this study. The students communicated constructivist views of learning both for pupils' learning (in a school setting) and for their own learning (in a university setting). However, the students' talk about teaching revealed inconsistencies and tensions towards more "traditional" views. The article highlights two dimensions of student teachers' views of learning and teaching. The first is related to the normative character of teacher education and the argument for a more realistic exploration of teaching and learning. The second dimension is that rich views of learning are not necessarily transferred to the students' own learning strategies. This finding points to a need for raising student teachers' awareness of their own learning.*

## Introduction

"Learning" and "teaching" are perhaps the two most central words in teacher education, since they describe the core of teachers' work. Student teachers – as *teachers to be* – learn about learning and teaching in a range of various (and sometimes competing) ways. In university courses in educa-

tion they learn *about* learning and teaching (the content) as well as *from* teaching (teacher educators' practice). They also learn about learning and teaching from their teaching experiences in practicum. Finally, student teachers already have well-established views of learning and teaching as a result of many years of experience and observation in the classroom (cf. apprenticeship of observation, Lortie, 1975).

The centre of attention within the school setting is *pupils*' learning. Student teachers are, however, not only students of teaching. They are also *students in higher education*, engaging with academic studies in education as well as in various subject disciplines. In university, they are *learners* in academic studies – developing awareness of (their own) learning. The aim of this article is to explore student teachers' awareness of learning and teaching within the complex setting of teacher education. It asks such questions as the following: How do student teachers talk about learning and teaching across the various settings of school and university? How are views of learning and teaching integrated into their language? And finally, what lessons can be learned from analysing such talk?

## Research on conceptions and beliefs

Research literature in abundance explores pre-service and in-service teachers' beliefs or thinking about learning and teaching – aiming to understand how such thinking develops and influences teaching practices (see, e.g., Britzman, 2003; Lortie, 1975; Richardson, 2001; Wideen, Mayer-Smith, & Moon, 1998). A particular focus has been on student teachers' beliefs upon entering teacher education; these beliefs are often characterised as idealistic, optimistic and traditional (Richardson, 2003; Wideen et al., 1998). There is considerable support for the idea that student teachers' already existing images of learning and teaching strongly affect what student teachers learn from teacher education. A main aim for researchers has been on changing students' beliefs – often from "traditional" to "constructivist" views (see Richardson, 2003). A common conclusion is that in order to be able to change the students' highly robust beliefs, those beliefs need to be made explicit and critically explored and challenged through the course of teacher education.

Conceptions of learning have also been in focus in research on student learning in higher education. A considerable body of research exists on how conceptions of learning relate to study behaviour and academic learning outcomes (see, e.g., Entwistle & Peterson, 2004; Marton & Säljö,

1997; McLean, 2001). One influential perspective in this regard is students' approaches to learning, originating from research in Sweden in the 1970s (Marton & Säljö, 1976, 1997). Within this perspective, conceptions of learning are seen as developing along a path of expanding awareness of learning – from a low level of understanding to a "fully developed conception of learning" (see Entwistle & Peterson, 2004). It is suggested that

> … people with a fully developed conception of learning become aware of the different purposes for which alternative processes of learning can be used, and so become consciously aware of their learning and able to adopt processes appropriate to varying tasks (Entwistle & Peterson, 2004, p. 411).

A particular focus in higher education has been on developing models and inventories for measuring beliefs and conceptions in larger samples and across different contexts (see, e.g. Entwistle & Peterson, 2004; Schommer-Aikins, 2004). Until recently, research on beliefs within higher education and teacher education has not been connected to each other. However, there is now a burgeoning body of research that attempts to explore the link between conceptions of learning as measured by the different inventories and conceptions of teaching (e.g. Brownlee, Petriwskyj, Thorpe, Stacey, & Gibson, 2011; Brownlee, Walker, Lennox, Exley, & Pearce, 2009; Chan & Elliott, 2004; Cheng, Chan, Tang, & Cheng, 2009; Rogers, 2011). These beliefs are, in turn, believed to influence teaching *practice*.

There are two assumptions underpinning the research that has been referred to so far. The first is the assumption that teachers' beliefs and value systems shape and influence their performance in the classroom (see Pajares, 1992; Wideen et al., 1998). This link between beliefs and teaching practice has, however, been difficult to establish (Cheng et al., 2009; Wideen et al., 1998). The second assumption is that conceptions of learning within the university setting (from a learner perspective) are the same as conceptions of learning within a school setting (from a teacher perspective). However, as research on teacher education and research on higher education exist almost in isolation from each other (Grossman & McDonald, 2008), little research has focused on how student teachers' metacognitive awareness of learning and teaching *as learners* relates to their awareness of learning and teaching *as teachers*.

## The dynamic nature of students' thinking about learning and teaching

Common for the larger part of research on beliefs – in teacher education as well as in higher education – is that beliefs are individual, robust and extremely difficult to change. There are, however, other perspectives that challenge this individual and cognitive approach to students' thinking about learning and teaching. Johnston (1994, p. 76) asks: "Are student teachers so uncertain in their thinking that images of teaching come and go, sometimes to be replaced by very contradictory views about teaching? Is this part of learning to become a teacher?" Others have been concerned with the transitional phase that student teachers are going through. The transition phase from being a student to being a teacher has been described as "rites de passage" (McNamara, Roberts, Basit, & Brown, 2002), as being in a "borderland" (Alsup, 2006), and "betwixt and between" (Cook-Sather, 2006). Some researchers have explored how images of learning and teaching as well as teacher identity are constantly reshaped and negotiated through this transition phase (e.g. Sexton, 2008; Van Rijswijk, Akkerman, & Koster, 2013). In this research on the transitional phase, the focus is predominantly on student teachers as *teachers to be*, and thus does not include the role as students in higher education.

Focusing on learners within higher education, a further perspective can be found in the growing body of research on academic literacies (Francis & Hallam, 2000; Jones, Turner, & Street, 1999; Lea & Street, 1998, 2000; Lillis & Scott, 2008). From the perspective of academic literacies, learning is a practice that takes place within sites of discourse and power that are historically and culturally situated (see Haggis, 2003; Lea & Street, 2000). A dominant feature of academic literacies is the requirement to "switch practices between one setting and another, to deploy a repertoire of linguistic practices appropriate to each setting, and to handle the social meanings and identities that each evokes" (Lea & Street, 2000, p. 35). This kind of code switching not only takes place between different disciplines but also within courses and modules. Teacher education is particularly complex, and the students navigate between university and school as well as between different university faculties. It follows from this that student teachers' thinking of learning and teaching are not shaped or developed solely within the mind of the individual. In a complex and dynamic interrelationship between the individual and the

social circumstances within teacher education, the students' thinking of what it means to be a learner or a teacher is constantly shaped and reshaped.

The aim of this article is to explore student teachers' awareness of learning and teaching within the complex setting of teacher education. Rather than merely asking the students how they describe *learning* and *teaching*, the focus will be on how the students' views of these concepts are integrated into their language. Particular attention will be given to potential differences and tensions. In light of the discussion above, the following research question will be explored: *How do student teachers talk about learning and teaching?*

## Methods

The context of this study is a five-year secondary teacher education programme at a Norwegian university. Graduates from this programme are provided with teacher education combined with a Master's degree in one academic subject and one year of study in a secondary subject. The academic subjects are studied within the ordinary Bachelor or Master's programmes of each academic discipline, while two terms – the fifth and the eighth[1] – are dedicated in full to coursework in education.

### Data collection

The data comprise interviews and a questionnaire, and were collected from two groups of student teachers as they were about to finish their eighth term of the programme[2]. The students in the two groups were enrolled in two successive years. From the first year, six student teachers were selected for individual interviews, while the second group included the entire cohort of 53 student teachers[3]. All 53 students filled out a questionnaire, while 18 were selected for six focus group interviews. The selection process in both interview rounds was based on an open invitation, and a mix of subject disciplines was secured. An overview of the participants is given in Table 1.

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[1] Each year has two terms. Hence, it is the first part of the third year, and second part of the fourth year.

[2] Data were collected in April-May 2010 and in April-May 2011

[3] The cohort included 59 students, but due to absence of the day of data collection, 53 students answered the questionnaire.

The interviews were semi-structured and lasted between 90 and 120 minutes. All interviews were recorded, anonymised and transcribed verbatim. The questions covered different aspects of the student teachers' learning practices, including questions about experiences from practicum and questions about being a university student. The students were, for example, asked to describe how they usually go about working with their university coursework. Since the focus was on how views of learning and teaching are integrated into the students' language, the participants were not asked directly about how they view these concepts. To provide additional support for interpreting the interviews, direct questions about learning were asked in the form of a questionnaire[4]. The students indicated their relative agreement with six statements about learning (1=very close; 2= quite close; 3= unsure; 4=rather different; 5=very different). The statements were based on the six categories of conceptions of learning as developed by Marton, Dall'Alba, and Beaty (1993). The statements suggest six ways of describing learning, starting from the lowest level through to a "fully developed conception of learning". These levels are to view learning as: 1) increasing one's knowledge, 2) memorising and reproducing, 3) applying knowledge, 4) understanding, 5) seeing something in a different way, and 6) changing as a person. The developmental process of conceptions of learning involves an expanding awareness; each conception integrates earlier (the "lower levels") within a more meaningful whole (see Entwistle & Peterson, 2004).

Table 1. Distribution of gender and academic discipline for interviews and questionnaire.

| | **N** | **Female** | **Male** | **Science** | **Language** | ***Social sciences** |
|---|---|---|---|---|---|---|
| **Interviews** | 24 | 18 | 6 | 12 | 12 | 0 |
| **Questionnaire**** | 53 | 38 | 15 | 19 | 26 | 8 |

** "Social sciences" includes both social sciences and geography as these are often combined in the school subject of social science ("samfunnsfag").*

*** The students from the focus groups are included also in the questionnaire (18 students).*

[4] The questionnaire was based on a validated Norwegian version of Approaches and Study Skills Inventories (ASSIST) Table 1(Diseth, 2001; Tait, Entwistle, & McCune, 1998), which also contained a whole range of other questions related to study behaviour. These are, however, subject for separate analyses (see Sjølie, 2014; Sjølie, Forthcoming)

**Data analysis**

The analysis process was performed in two steps. The focus in the first step was to explore how the participants described the nature of learning and teaching. Simple frequency analysis in SPSS was used in order to map the student teachers' conceptions of learning as measured by the questionnaire. As for the interviews, the students were not asked directly to describe their views of learning and teaching. Therefore, the initial step was to identify the parts that were seen to express such views. Descriptive coding (Saldaña, 2009) was used for this purpose. Learning and teaching are inextricably intertwined, and therefore difficult to distinguish from each other. When the students described the nature of learning or prerequisites for learning, their statements were seen as statements about learning (even though they talked about it through their descriptions of teaching). When the students talked about how they taught in practicum, about teaching methods, or about experiences with teaching on campus, their statements were seen as statements about teaching.

In this first step, I analysed statements referring to the school context and the university context separately with an approach that involved searching for patterns within the data. Pattern codes identify emergent themes from the data and are used to pull together a large body of material into fewer and more meaningful units of analysis (Miles & Huberman, 1994). As an example, the transcripts consisted of a range of different ways to describe learning, such as "making your own knowledge", "discover by yourself", "exploring by yourself", "create themselves", or "construct knowledge". All of these excerpts were coded to the pattern code of "construct knowledge". I identified three main categories for *learning* and two for *teaching*.

The second step of the analysis involved taking a critical stance, in which the focus was on scrutinising the initial findings in light of social and discursive structures as well as power relations within teacher education. This part of the analysis involved searching for differences, similarities, and tensions between the different contexts (school and university), perspectives (learner and teacher), and views of learning and actual (or reported) teaching. The results from the first step will be briefly presented, but the main emphasis in the findings section will be on the second step of the analysis.

## Findings

### *Step 1: The nature of learning and teaching*

Figure 1 shows the results from the questionnaire about conceptions of learning. The results suggest that the students in this cohort hold "developed" or "sophisticated" conceptions of learning Figure 1(cf. Entwistle & Peterson, 2004; Marton et al., 1993). The students largely agreed to all of the statements except "memorising and reproducing". This finding can be understood in light of another analysis of the same student group, which reported that these student teachers are predominantly meaning oriented (Sjølie, Forthcoming). Memorising and reproducing are usually associated with a surface approach to learning (see Entwistle & Peterson, 2004 for elaboration of approaches to learning), which was not possible to detect in this particular student group. That memorising and reproducing do not necessarily lead to learning is illustrated by a quote from one of the focus groups when the students were talking about reading for the sole

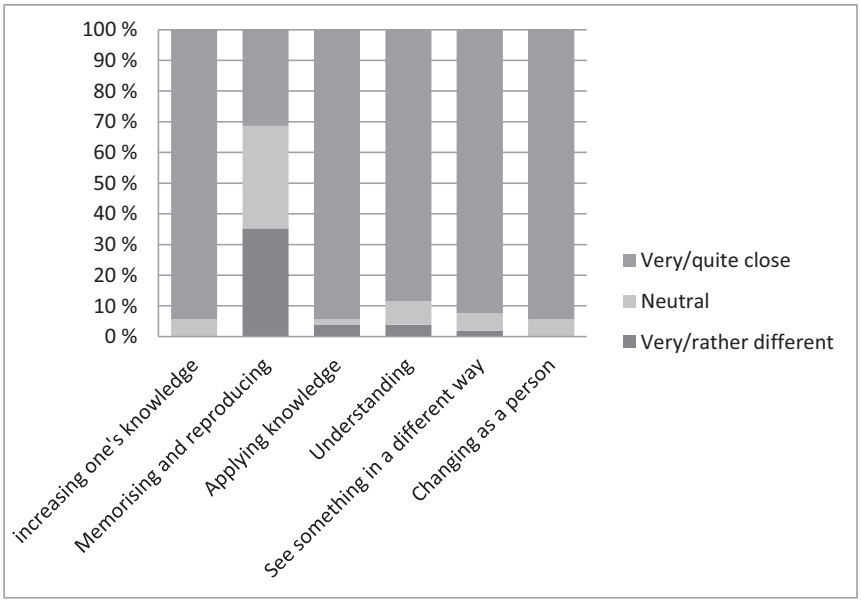


*Figure 1 Conceptions of learning of the total year cohort (N=53). The answers indicate the participants' agreement with six statements about learning, e.g. «Learning is to build up knowledge by acquiring facts and information» (increasing one's knowledge).*

purpose of writing a test: "that doesn't lead to knowledge, that's just temporary".

***Students' talk about learning***

I identified three main categories as to relating to how the participants talked about the nature of or prerequisites for learning: *activity, construct knowledge,* and *seek understanding*. An overall finding from the interviews was that the student teachers communicated a predominantly constructivist view of learning both in a school setting and in a university setting. A constructivist view was present with each and all of the participants. Below is an example of how the different categories were visible in the students' talk:

> Finn: … you leave the talking to them, that they somehow can make | | their own knowledge and understanding through talking with each other and perhaps reflect. I may well know the subject matter perfectly well inside my body and my mind, but … to transfer it to them… I think it is quite good that they create it themselves in a way, instead of me just telling them. Then it just becomes a bunch of moralising points that I impose on them. Unless they really take it in, it goes in one ear and right out the other. […] let the students research and discover […] the process of making something their own makes sure that it sticks better, it becomes in a way a part of you. Because then, there is a kind of deconstruction of what is written in the book, and then it is reconstructed in you.

There were also examples of students who made explicit links to theories from their university courses, such as the one below:

> Kenneth: I rely a lot on a constructivist and socio-cultural view of learning, that learning requires activity with the students. It does not need to be physical activity, only an inner activity that allows them to *do* something. The easiest way for me as a teacher to ensure that this happens is to get them to participate in class. Either chat or discuss with each other, answer questions, make suggestions and comments… and this is also close to socio-cultural views, that learning occurs through dialogue, i.e. social interaction.

When talking about learning in a university setting (from a learner's perspective), the main focus was on the need to *actively process* the subject matter, for example through writing assessments, taking notes, group discussions, or in some way "post-processing" lectures. While the general

aim in school was to activate pupils, only a few students mentioned that as important in a university setting. In their own learning they stressed the need to create their *personal* understanding – to make the matter their own and reformulate with their own words. Two of the students also emphasised the need to be challenged to think and to develop their own opinions.

***The students' talk about teaching***

The two main categories that were identified in the analysis are *student centred teaching* and *teacher centred teaching*. Without exception, the students described student centred teaching as the ideal way to teach according to a constructivist view of learning. Student centred teaching in school was described as meeting the needs of the individual pupil and to build upon their previous knowledge and interests. The teacher-student relationship was therefore emphasised as being very important. Student centred teaching would typically consist of inductive, inquiry-based methods, allowing the pupils to discover by themselves (or together) and thereby make the subject matter "their own". Within the university setting, the students generally reported to value student active workshops much more than (passive) lectures.

An interesting finding emerged from looking closer at the adjectives the students used when they referred to teaching methods they had learned about in their university courses (predominantly student centred). Quite consistently, the students used words such as "fun", "innovative", "creative", and "fancy". Many of the participants said that they had largely observed what they called "traditional teaching" in practicum, and many supervisors had been reluctant to them trying out something different. In a way, the students described themselves as "agents of change"; they wanted to introduce *different* teaching instead of much of the boring teaching they had been subject to themselves in school and that they observed in practicum. Benjamin explained: "I want to achieve differentiation. I want to make fantastic fun tasks that everyone thinks is fun and that stimulate activity in class."

Another interesting finding was that the students' talk about *teaching* also contained traditional ideas of learning that were not present when they talked about *learning*. For example, statements associated with teacher centred teaching revealed a transmission model of learning. This tension between learning and teaching will be elaborated more in detail in the presentation of the results from the second step of the analysis.

**Step 2: Tensions and differences between contexts**

Tensions or inconsistencies in views of learning and teaching were found along two lines: between *idealism* and *practicality* and between *school* and *university*. I will comment on both separately and present them largely through excerpts from the interview transcripts. The differences were not found *between* the participants, but in the statements of the *same* students in different parts of the interview.

***Idealism – practicality***

One kind of tension was between "ideal teaching" and the practicality of the particular classroom. Fanny, for example, expressed a general frustration which can be related to the aforementioned wish to be creative and innovative: "In the end I was like 'what can I do to get the students with me? I'm surpassing myself in creativity here, but it just doesn't work.'" Other examples were about how the students seemed to fall back on traditional teaching. The reluctance to relinquish authority, which is often required in student centred approaches, was shown to be present in several of the students, and is illustrated below with Leah's example. The first quote is from a part of the interview where she talks about what she tries to achieve in her teaching (talking about student learning), while the second quote is later in the interview about her actual teaching. In the second quote, she also reveals a view of learning as transmission of knowledge.

> Leah (talking about student learning): I want to get students to think for themselves, they have much stronger ownership of the knowledge then. Being able to … be more active players in their own learning process, rather than just being passive recipients.

> Leah (describing her teaching): I have noticed that when I have blackboard teaching I feel that I ensure learning better than when I do other things. Perhaps that's why one often resorts to … because then I have at least gone through the material. It is difficult to know what students are left with when you have other types of activities. I'm not sure if it is because one has too little knowledge about how learning is acquired… or how to measure it […(pause, thinking)…] It really has nothing to do with learning. What I really mean is that you have at least conveyed it, you've said it out loud, and then you know that at least someone had the chance to catch it.

Another example of the tension between the ideal of student centred teaching and the reality of the classroom is illustrated by a mathematics student. Benjamin talked about how he ended up teaching in the way they felt most comfortable: "I feel that I teach the way I would like to be taught myself, in the way that works for me. I feel very comfortable with this way of receiving knowledge." In this quote, Benjamin also voices a transmission model of learning. Leah's and Benjamin's statements, along with similar examples from others who were interviewed illustrate the particular challenges of being inexperienced and in the beginning of the process of learning to teach, but also the strong and robust images they have from previous teaching experiences.

The main explanation for not teaching according to the "ideal" was the time aspect. "Innovative" teaching methods take too much time, the students said. There is not enough time for preparation, and there is not enough time in class to let students find things out by themselves. Lily provides one example:

> Lily: we've talked a lot about it on campus that students need to be active in constructing their own learning and so on. Then it's okay to try that a few times too. But you realise that it takes much more time, and as a teacher you don't have that much time. […] There's no time to make that kind of fancy lessons every time.

What is indicated in Lily's quote (in addition to the time aspect) is the tension that was described above between talking about learning and talking about teaching. In the interview, Lily described her teaching as rather traditional. She mostly relied on a "blackboard session" followed by individual task solving. In the quote above she indicated that facilitating students in constructing their own knowledge is something she should "try out a few times". It does, however, require "fancy" teaching methods. In the tension between idealism and practicality, it was not only a meeting between *her* idealist view and her meeting with reality, but between *teacher education's* idealist view and perhaps her image of teaching. When elaborating on their teaching and on why they did not teach according to the ideal views there were expressions such as "we've heard over and over again that it is the right thing to do" or "I've heard that student activity is *in* now". Some seemed to regard it as a failure to not teach according to the ideals, while others described that they just made other choices. Nicolai is one example of the latter:

> Nicolai: They're really nice and very clever students, but when you start the lesson they're lying asleep on their desks. They fully respect you, but they have zero interest in learning. That has been a great challenge.
> Researcher: How did you deal with this?
> Nicolai: (sighs) well, then you're supposed to appeal to intrinsic motivation and this and that. But I just turned to grades and extrinsic motivation; ultimately they want to work with a vocation. And how can they work with a vocation? They need to get through school.

When asked to elaborate more in depth on their teaching, it turned out that the most frequently used argumentation for having student centred teaching was to do something *different* – something "fun", "innovative" or "fancy" as opposed to the "boring" and "traditional" teaching that according to them dominates in school. In these cases, the students did not argue for student-centred teaching as a way to improve student learning other than the link between motivation and learning (that motivation leads to learning). Gine's comments are a good example of this. Below is her answer to the question of whether she had used inquiry-based teaching in mathematics:

> Gine: A little bit. But I'm thinking… I strongly doubt that everything should be inquiry-based. The students are in their final year of high school, they have to endure a bit [of theory], get used to it if they are go to university next year. They might not get any inquiry-based teaching there. They have chosen to take this subject so they ought to be a little interested. […] It's important that they get variety in teaching, but I also feel that when you're in the final year in high school you must be prepared for more theoretical teaching and not only fun stuff. Everything can't be inquiry-based.

Gine had a supervisor who actively resisted her doing anything other than a blackboard session followed by individual tasks. According to Gine, he said that this way of teaching was the fastest and securest way for the pupils to learn the whole curriculum. There was no time for trying out "silly discovery tasks".

Another example of a student who questioned the focus on "fun and creative teaching" was Elisa. She felt very strongly about the messages she thought were conveyed by her teacher educators:

> Elisa: Of course one should include the students, but I think it might have gone a bit far. There is a kind of 'fun hysteria' in school nowadays, which I think is totally crazy. I noticed it particularly in subject didactics that we should make everything so extremely fun for the students – whatever the cost. I don't understand that at all. Why can't we just say 'you know what, you're supposed to learn this'. Of course we should justify it in theory and curriculum and stuff, but I feel that it's not okay to say "you know what, we will learn this". There is so much fancy schmancy. I think we're getting too hysterical about it.

To equate ideas from teacher education with "fancy" and "innovative" seemed also to be shared by some supervisors. Benjamin told the following story of how his supervisor warned him in advance of his first lesson with a new class:

> Benjamin: I think it was a bit influenced by my supervisor. He said on the way to the first lesson that half the class are sport students, so they're going to make a lot of noise and they are not very motivated for mathematics. 'You must take that into account, so don't do very fancy stuff', he said.

Some of the students said explicitly that there had been little room to question prevailing views of learning, in particular socio-constructivist views of learning:

> Oliver: For example, you never get the chance to say "no, I don't think it's good to have rich tasks in mathematics". It's never challenged, or we don't get the opportunity to challenge such things. […]
> Leah: Yeah, I think you're onto something there. In subject didactics I've got the impression that it is desired that you do like this or like that, and it doesn't really matter what you think of it. It might well have been that I had come to the same conclusion myself, but we are not challenged to take a stance.

Several of the interviewees emphasised that teacher-led lessons are of course not incompatible with a constructivist view of learning. In teacher-led sessions, the teacher can activate the students through dialogue and discussions, inductive teaching and by connecting the subject matter to the students' lifeworld and build upon their prior experiences and interests.

***School – university***

When the students described teaching in a university setting, there was a noticeable shift to a transmission model of learning. Although the students seemed to strongly believe that learning involves making knowledge your own through activity (also in their own learning), and that they valued student-active workshops much higher than lectures, their statements contained tensions when they described teaching in university. One example of this was in Kenneth's words, who talked very much about how he tried to teach according to a socio-constructivist view of learning in school. He said: "Teacher educators should teach us how behave and what to think." Also Emilie, whose statements quite consistently reflected a constructivist view of learning in school: "we expect from the teacher educator that he's a good academic as well as being excellent in imparting knowledge to us so that we can pass it on to the students in school […] I want to absorb as much knowledge as possible". Yet another example was Leah who had just talked much about how she resented teacher educators who acted as *experts* rather than using their *expertise* to empower and challenge the students. That was, however, in relation with workshops in subject didactics[5]. When talking about *lectures* she said: "I think that in lectures I expect an expert. But that's because lectures have always been like that."

The expectations of traditional teaching in university seemed to be rather strong with some of the students. Eve provided an illustrative example when she talked about her experience of one of the lectures she had attended. This lecture had two lecturers:

> Eve: In one of the lectures, one of the guys [lecturers] started by saying to the other one: 'I had an experience the other day, why don't you tell me how I experienced it?' And then the lecturers began to discuss with each other; they hadn't agreed in advance on how to organise the lecture!

Eve's main concern in this part of the conversation was that teacher educators did not "walk their talk". As student teachers they are told that it is important to prepare your lessons, and she was shocked to see that these lecturers had met unprepared to a lecture with more than 200 students. The particular lecture that Eve was referring to was kind of "untraditional" in its form. Two lecturers had a "performance" or conversation with each other instead of a traditional lecture (which of course was part of the plan).

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[5] *Subject didactics* is similar to what in some countries are called *curriculum courses* or *methods courses*

The fact that Eve concluded from this that the lecture was not planned in advance indicates that she did not understand this "meta-message" of the lecture. She was perhaps too bound by the way lectures are usually done in university.

Finally, there were examples of how students argued differently about learning within a school context and a university context. It illustrates how they talked about learning and teaching in school through the *intention* of the teacher, but about learning and teaching on campus through the *experiences* as a learner. One example was the one group who after having talked about the general importance of stimulating activity in class, talked about student activity on campus:

> Nora: Activity is not always good. We had a seminar in the language cohort. We had been sitting for five hours and then: "now you're getting so tired, we're going to have a role-play".
> Vera: But this was actually an example I'd like to point out now, I remember it, it was the one with master suppression techniques? I remember feeling a lot of resistance, "role-play now?" But I got together with a group and we read the article we had been given, and we played it out. To this day, it is perhaps what I remember the most from that day.
> Nora: I only remember my resistance. I'm not usually against role-play, but come on, 'it's almost three o'clock, can't we just finish now?'

One of the focus groups raised the topic of a prevailing passive student culture, in which many students expressed active resistance towards activities that were not in the form of either listening to lectures or participating in discussions.

Another example of arguing differently across the different contexts was found in Nicolai's description of his teaching in school; he said that he was very conscious of not revealing answers to the pupils unless they had worked on it themselves.

> Nicolai: Usually, the students decide. I decide the theme, I decide tasks, but they decide what comes up on the board. […] I don't want to bring in my opinion, I like the students to decide for themselves how they should do it. […] And then the world of discovery begins. When they have started this journey, it is perhaps easier to keep them hooked on.

In another part of the interview, where Nicolai talked about the research project they had been working on, he criticised his teachers for not being

able to provide them with a simple explanation of the notion of *assessment for learning;* they had to find out by themselves. This bothered him, and he considered it a failure on part of his teachers.

The participants talked predominantly about the school setting from the perspective of a teacher, while they talked about the university setting from the perspective of a learner. On some occasions, they could take the perspective of the pupil in school (when referring to their own school experience), and they could take the perspective of a future teacher when talking about learning in university. There was, however, not one single example in the interviews, in which the students tried to see university teaching through the intention of the teacher educator.

## Discussion and conclusion

The frequently used claim that student teachers have narrow views of teaching and learning is not supported by this study, at least not for students who are at the end of their education. However, whereas the students provided rich views of learning both in the questionnaire and in the interviews, their talk about teaching revealed more traditional views. The question that remains to be answered is: what lessons can be learned from this report of student teachers' talk about learning and teaching?

A first lesson can be related to the much debated "theory-practice gap" in teacher education. Tensions between idealism (theory) and practicality (practice) did not only reveal the difficulties the students had in trying to transfer formal theory to particular situations in the classroom. The way the students talked about these challenges revealed an additional dimension – the dimension of discourse and power. Whose idealism were these students measuring their practice against? Was it formal theory, their personal images of teaching, or the ideals of teacher educators? Carlgren and Marton (2004) explain the idealism of newly graduated teachers with the normative character of teacher education. The didactic dimension of the teaching profession places emphasis on all the wonderful things that can be achieved in the classroom. Wideen et al. (1998) found that teacher educators often expect student teachers to be agents of change in schools, while Britzman (2003) point to a discourse of teaching within teacher education that explains teaching competency as the absence of conflicts.

Judging from these student teachers' stories, the normative character of teacher education might also have prevented the students from *challenging* and *developing* their own personal theories. The students consist-

ently described teaching methods they had learned about in subject didactics as "fun", "innovative", and "fancy" – a description that was shared by some supervisors as well. They seemed not to see many of the methods they had learned first and foremost as means to promote learning, but as means to motivate (bored) students by doing something *different*. They did not necessarily believe in the use of the methods themselves, which is illustrated in Gine's example of inquiry-based teaching. The theory-practice gap is thus not only a difference between the ideal, formal theory and the reality of the particular classroom, but also between teacher educators' ideals (and values) and student teachers' personal theories.

A second lesson to be learned is that although the students have "developed" (cf. Entwistle & Peterson, 2004; Marton et al., 1993), constructivist views of learning, these are not necessarily transformed to their own situation as learners. Many of the students seemed to expect teaching in university to be traditional, and some students expressed frustration when it was not, feeling resistance towards activity, referring to a passive student culture more in general, and dismissing a lecture for not being performed in the "predefined" traditional way. The university, as a culturally and historically situated site for learning (cf. Lea & Street, 2000), carries strong connotations in terms of what the students expect and how they interpret their learning experiences.

These contributions to research on student teachers' thinking also carry methodological implications. The findings illustrate the complex situation of the student teachers in terms of being in a "borderland" (cf. Alsup, 2006; Cook-Sather, 2006) and at the same time shifting between the perspective of a teacher and that of a learner in higher education. How can, for example, inventories measuring students' conceptions of learning capture the different perspectives or contexts the students are thinking about when answering questions about learning and teaching? Also, whose voice are they using? Are they providing the "correct" and idealistic answers or their more "realistic" answers, and are they aware of these differences? When the students talked about the school setting in the interviews (taking the teacher perspective), the students deployed an appropriate language within the setting of teacher education; they talked with me whom they knew as a teacher educator. When talking about teaching in university, the students used another language – that of a learner (and participant) within university and focusing on their experiences. Perhaps they also took the role as "evaluators", talking to me as a researcher with a potential influence to make changes.

The practical significance of this study is that it points to the importance of a more realistic exploration of teaching and learning, and tries to meet the students where they are. As Eraut (2000, p. 572) noted: "The traditional problem of how to fit novices to the teacher education curriculum might be better reframed as the problem of how to fit the initial teacher preparation program to the learning needs of student teachers." While some of the examples in the findings section could be related to the strong pressure that student teachers are under during practicum and the early stage they are in as teachers, other examples were related to the problems of teaching according to teacher education's ideals. What is open to criticism is not that the student teachers struggle with being change agents in school: What is open to criticism is that they feel they are expected to. Might teacher educators, rather than supporting the students to *challenge and explore* their views about learning and teaching, be attempting to *replace* the students' views?

Furthermore, the students' lack of awareness of the teacher educators' possible intentions behind their practice points to the need of making teaching more explicit. The student teachers in this study showed little awareness of themselves as part of a practice with an overall aim to educate teachers. They were predominantly concerned with their *student role*. This finding indicates that the mere modelling of "good teaching" is not enough for student teachers to transfer such teaching to their own teaching practice in school. It points to a need for raising student teachers' awareness of their own learning in a practice that educates teachers. If the students are not able to transfer their views of learning to themselves as learners, how are they to transfer these views to their pupils' learning?

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