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Student teachers' experiences of academic writing in teacher education– on moving between different disciplines

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ABSTRACT

This study focuses on a selection of student teachers'experiences of academic writing in different disciplines in teacher education. By studying two different learning and writing environments at a Swedish university – teacher education for pre-school teachers and for secondary school teachers – we distinguish different forms of writing ideals resulting from disciplinary shifts during the first two years of teacher education. In the preschool group, all the student teachers express the idea that writing ideals change during their education, as if they move between different worlds of writing. The student teachers specializing in secondary school education express the view that, overall, the writing ideal remains the same, and have a sense of staying in the same neighbourhood. These different experiences most likely create different barriers and possibilities in their formation as writers and future teachers. The results also indicate that, in their writing during the first two years, the participating students' focus is on becoming students and adapting to different disciplines in higher education.

Introduction

This article focuses on student teachers' experiences of academic writing in teacher education at a Swedish university. What does it mean to write in different disciplines, and how do they experience their trajectories in academic writing during their first two years in teacher education? For individuals to cope well in modern 'knowledge societies', there needs to be an increasing emphasis on how young people develop reading and writing skills and a broader literacy. A key concern is therefore to ensure that initial teacher education (ITE) supports student teachers in developing their literacies in ways that encourage their self-efficacy as readers and writers with a potential to develop a solid repertoire for teaching (Darling-Hammond & Lieberman, 2012; OECD, 2010). What student teachers learn and experience in ITE is therefore a matter of empirical research interest – because the norms and values, practices and discourses they are

enrolled into throughout ITE will influence their understanding of what matters in teaching (Klette & Carlsten, 2012; Smeby, 2012).

A core interest in this paper is student teachers' experiences of learning to write in academic disciplines. More specifically, we present, analyse and discuss Swedish ITE students' experiences of encountering distinct writing cultures in five different disciplines: educational science, natural science, aesthetic studies, social science and history. Investigating two different learning and writing environments in teacher education at a Swedish university – preschool (early years) teacher education and secondary school teacher education – we distinguish different writing ideals as they are articulated and practised in different environments and disciplines in higher education. The aim is thus to study, first, how student teachers experience the encounter with academic writing in teacher education and, second, their experiences when moving between different academic disciplines. This also provides an opportunity to discuss possibilities and challenges when it comes to academic writing on different teacher education programmes. The following research questions have guided our approach:

(1) How do student teachers experience writing ideals in practice within different disciplines?
(2) To what extent do student teachers experience that writing ideals change during the first two years in (a) preschool teacher education and (b) secondary school teacher education?

Previous research

Earlier studies have shown that the first two years in teacher education can be seen as a critical phase, since many students are not prepared for the required standards of academic writing, and therefore face difficulties and even express anxiety about such writing (Lillis, 2001; Ask, 2005; Wingate, 2010). Sofia Ask (2005), in a Swedish context, has shown how the transition from upper secondary school to higher education can be difficult, and that students' previous experiences of writing differ greatly. Research on teacher education has demonstrated a need to understand student teachers' writing in the light of both their previous experiences in life and their conceptions of their future work. Typically, experiences of academic writing in teacher education are strongly influenced both by the students' upbringing and earlier experiences of writing and by their view of their future profession as a teacher (Ciuffetelli Parkers, 2010; Gardener, 2014; Arneback, Englund & Solbrekke, 2016).

When it comes to writing in academic disciplines, earlier research has also shown that writing in higher education differs quite significantly, both between and within different academic disciplines (Becher & Trowler, 2001; Blåsjö, 2004). Tony Becher and Paul Trowler (2001) talk about these differences in terms of tribes and territories, and describe differences in writing *between* soft and hard sciences, but even *within* disciplines there are several traditions of writing (cf. Graue, 2011). According to Becher and Trowler (2001), hard science is mainly connected to the natural sciences and a cumulative search for discovery and universal answers. Soft science, in turn, is often linked to humanities and social sciences and the use of pluralistic and interpretative approaches to understand social phenomena. This means that writing in different

disciplines has differing epistemological assumptions and goals. Differences in academic writing have also been captured in studies based on an academic literacies approach. Mary Lea and Brian Street (1998) have demonstrated how students who move between academic disciplines struggle to master 'course switching' and the different requirements and feedback patterns associated with the different disciplines. The present article aims to contribute to this research field by studying student teachers' experiences of the writing ideals used in practice during the first two years of teacher education.

Theoretical framework

The academic literacies tradition emphasizes academic writing as a social and cultural practice in higher education (cf. Ivanič, 1998; Lea & Street, 1998; Lillis, 2001; Blåsjö, 2004; Macken-Horarik et al. 2006). One important consequence of this perspective is that writing is considered to be a result of a social process in which 'meanings are contested among the different parties involved: institutions, staff and students' (Lea & Street 1998, p. 158). In contrast to research that considers academic writing as a predefined set of rules that student teachers need to adapt to, an academic literacies approach focuses on writing as a social practice in which students take part in, and develop, different literacies. Learning literacies is thus dependent on the social practices they are situated in, and they are developed through active participation in those practices (Lave & Wenger, 1991). However, a social practice in itself cannot be regarded as a natural domain. It is constituted by discourses and power, and requires a set of communicative practices, including genres, fields and disciplines (Ivanič, 2004; Lea & Street, 1998).

To capture student teachers' experiences of writing in higher education, the concepts of *writing ideals* have been useful. Writing ideals captures the requirements placed on writing by teachers and students in different disciplines (cf. Lea & Street, 1998). The term writing ideal has in addition been useful in understanding the influence of the social and cultural process in higher education, as the ideals of writing are constituted in practice by those involved. In this study, the empirical data is student teachers' experiences and their understanding of what kind of academic writing they are expected to master in different academic disciplines. Inherent in this approach is an interest in how different contexts in higher education create different conditions for students' writing and how the students experience those conditions (cf. Street, 1995; Lea & Street, 1998).

Data

In this paper we draw on data from a Swedish university, focusing on student teachers' first two years of teacher education. The sample of informants was selected from students enrolled in preschool teacher education and upper secondary school teacher education (social science/history), to capture similarities and differences between two strands of teacher education at one university. When student teachers enter higher education, they successively come into contact with different disciplines. In this article, we follow the timeline at the specific university concerned, where the students start with (1) educational science, a discipline which the two teacher programmes have in common in their first semester. Subsequently, we separate the two programmes. First,

Table 1. Teacher education programmes included in the study – the first two years.

Specialization	Semester 1	Semester 2	Semester 3	Semester 4
Preschool (3.5 years)	Educational science	Educational science	Natural science/Aesthetic studies	Natural science/ Aesthetic studies
Upper secondary school (5 years)	Educational science	Subject A (Social science or History)	Subject A	Subject A/B

we present the results from disciplines studied in preschool teacher education: (2) natural science and (3) aesthetic studies. Secondly, we present results from disciplines studied as part of secondary school teacher education: (4) social science and (5) history. Table 1 gives a picture of the programmes' different study paths during the first two years.

In the selection process, we contacted two groups of students, informed them about the research project and asked them if they wished to participate. As a result, we were able to follow eight student teachers specializing in preschool (early years) education. In the upper secondary group (with social science as their main subject), only one student was interested in taking part in the interview study. We therefore contacted another group of students on the upper secondary programme (with history as their main subject) as a complement to the study, which resulted in the participating of another two students in the study.

In the preschool group, all the students studying to become preschool teachers were women. By comparison, of those studying to become upper secondary school teachers of social science or history, twenty-two out of a total of twenty-four students were men, as were all three of those participating in the study. We can conclude that there is a gender difference in our data. How this may have influenced the outcome of the study, however, is hard to draw any conclusions about, since it has not been a focus of data collection and analysis. Space and ethical considerations do not permit contextualization or biographical details, but awareness of context remains a significant element of the interpretative process in the analysis. To protect the privacy of interviewees, they have been given fictitious names. Before moving on to the analysis, we provide a brief outline of the student teachers who took part in the interview study. Table 2 shows the informants' fictitious names, and their teacher programmes and interview data (FGI – Focus-group interview, II – Individual interview):

Table 2. Participants in the interview study.

Participants	Teacher education	Interviews
(1) Josephine	Preschool	1 FGI, 1 II
(2) Louise	Preschool	1 FGI, 1 II
(3) Caroline	Preschool	1 FGI, 1 II
(4) Sara	Preschool	1 FGI, 1 II
(5) Helen	Preschool	1 FGI, 1 II
(6) Eva	Preschool	1 FGI, 1 II
(7) Bibi	Preschool	1 FGI
(8) Fatima	Preschool	1 FGI
(9) Michel	Secondary school (Social science/history)	3 II
(10) John	Secondary school (History/English)	1FGI, 1II
(11) Jonathan	Secondary school (History/English)	1 FGI, 1II

Two distinct but intimately related data sets constitute the empirical element of this paper's analysis: (1) three initial focus-group interviews on academic writing in ITE (cf. Wibeck, 2000), in which the students together discussed their experiences of writing, and (2) 13 individual follow-up interviews. At that stage we asked the informants to send us texts they had written in different disciplines as a reference for discussion (Kvale & Brinkman, 2010). This made it possible to ask both general and specific questions about their experiences of academic writing. All the interviews were conducted using a semi-structured manual with set themes, but with an openness to the students' own initiatives; they were recorded and lasted between 45 and 90 minutes.

Method

The interviews were conducted, transcribed and analysed by one of the researchers. Her role was to generate data on the students' experiences of writing and reading, with an emphasis on their time as students in higher education. In order to reduce researcher bias, the two other researchers (one Swedish and one Norwegian) contributed some more distanced 'outsider' interpretations of and perspectives on the analysis.

The analytical process consisted of two steps. In the first, the empirical data was coded to capture passages in which the students talked about their experiences of writing ideals in practice (in instruction, in their own writing and in feedback) in different disciplines during their teacher education. Through this procedure, the analysis focused on academic writing as a practice in higher education (cf. Ivanič, 1998; Lea & Street, 1998; Lillis, 2001; Blåsjö, 2004; Macken-Horarik et al., 2006), from a student perspective. In this process we applied an abductive mode of inquiry, inspired by what Alvesson and Sköldberg (2001) describe as 'reflexive interpretation' (pp. 247–257). This means that the content and language used to describe writing ideals in different disciplines are the subject of a multilayered analysis, moving between theory, analytical concepts and what emerged from the interviews. In the second step, we compared the outcomes regarding student teachers' experiences of writing in different disciplines with each other, to see what differences and similarities appear over time in these two types of teacher education.

The strengths of the study are, as we see it, that the approach and the data collected enabled us to get close to the students' experiences of academic writing, making it possible to name different kinds of writing ideals from a student perspective. At the same time, we are well aware that other actors and contexts could complement the study. It is important to emphasize that these results are to be understood in relation to a specific context, and that academic disciplines are historically constituted.

Results

Step 1: Writing ideals in different disciplines

Perspective writing in educational science (Preschool and secondary school teacher education)

Educational science is the first discipline the students come into contact with during their education, both preschool and secondary school student teachers at the

university in question. From the student teachers' point of view, the dominant writing ideal in educational science is perspective writing, which means writing on an educational topic from different angles in order to develop a validly argued conclusion. The criteria for perspective writing seem to encompass both content (discussing an issue from different angles) and form (being able to present an argument in a convincing way). According to the students, teacher educators emphasize that both textual and formal structures are required to develop a coherent line of argument. Generally speaking, this ideal is concerned with enhancing students' ability to draw on several theoretical perspectives and develop and apply a critical and reflective approach in their writing – an ideal recognizable across disciplines and one that may also be seen as a generic competence in academic writing (Wingate, 2012). In terms of content, the discipline makes use of references from, for example, different learning theories (behaviourism, cognitivism, sociocultural theory, and pragmatism) to get the students to reflect on different approaches to learning and teaching. In terms of form, the student teachers express the view that there is a strong emphasis on how to structure a text and how to make references. In the following quotation, a student on the preschool teacher programme describes how she perceives the demands placed on writing during the first semester.

Example 1: Write in order to understand writing

Josephine: This is how we do it here. If you understand this model you can better adapt to other places. The idea was not to write right or wrong, but rather to understand how to construct writing so you can use it in the future. That is what they often told us: it is important that you write in order to understand writing. . . . It is important to have a main thread. You need to have a start, a focus in the middle and a conclusion that links back to the beginning. And it is important to have research questions. Often they highlighted that these can change during the writing process because you need to find a focus. We have talked about 'the funnel' many times, that you often start up here and end up down there (Focus-group interview 1, preschool teacher education).

In her reflection on writing, Josephine accepts the culture and tradition of the discipline. She also indicates that she has started to comply and identify with this academic genre by claiming that *this is how we do it here*. Interestingly, Josephine reflects upon this learning experience in relation to future writing. However, there is no indication in the quotation of whether this is pointing forward to their future professional role. What is evident, though, is that she has grasped that writing is an important means of learning (cf. Wingate, 2010), and in this sense it is seen as a pedagogical tool – a resource for a prospective teacher. It is also clear that Josephine has learnt the academic genre when she describes how a text should be created and structured in educational science, emphasizing for example that in this disciplinary culture a text requires a main thread, which means that different parts of it need to be linked together. For Josephine, the experience of academic writing in educational science is positive, and she finds writing in higher education inspiring. But for most of the student teachers interviewed, this type of academic writing in educational science during the first semester is recalled

as a major struggle. And for some of them the new requirements were not in line with their expectations:

Example 2: It was very difficult

Caroline: It was very broad and difficult to grasp to begin with.

Sara: I was almost a little afraid that I'd chosen the wrong education. They were very, very difficult texts for
me. It was very unfamiliar to me, and there were a lot of texts and books that I didn't enjoy reading at all.

Caroline: I felt the same; we come from a similar background and have worked before. So it was a major leap starting here, and everything seemed very scary. … It's hard to write a text when you have never done it before, it was very difficult. They expected you to know how to go about it (Focus-group interview 2, preschool teacher education).

One reason for the struggle described could be that educational science is the first discipline the preschool student teachers come into contact with in higher education. With it come new requirements regarding their reading and writing, which they are not yet used to. The quotations also remind us of the multiple expectations of students, and of the varied backgrounds they bring to current mass higher education. Accordingly, they cope with academic writing in very different ways (Wingate, 2010). While the ideal in educational science is dual in the sense of learning both content and form, many of the students recall that form was the ideal that was most often emphasized. This is also mirrored in the feedback students describe that they received from teachers. How to make references in a text stands out as a most important learning goal, judging from the students' experiences of patterns of feedback from their teachers. One example of this is the way Jonathan and John, students on the secondary teacher programme, talk about their experiences of feedback:

Example 3: It was wrong, wrong, wrong

Jonathan: We were supposed to know more about APA, the reference system. I thought, eehh, you can do as you like, as long as it almost looks the same. But when I got my paper back it was wrong, wrong, wrong, wrong, wrong …

John: So it had to be according to…

Jonathan: Well, when I got it back, it was rejected to begin with. But there was not all that much that was bad or wrong. It was just, no, there should be no parentheses there, and there should be parentheses here.

John: I failed the first time. I'd forgotten to use capital letters and full stops in my writing … and it felt like aaaaaa (Focus-group interview 3, secondary school teacher education).

The student teachers' introductory period is not only about learning the rules needed to master this new writing genre; it also represents the initial formation process in becoming a university student. We may therefore ask what kind of

formative impact the initial feedback on written assignments may have on the students' self-efficacy as writers (Wingate, 2010), and also on their sense of what matters in teaching – and what role this plays in their emerging formation as teachers. As we have seen in the quotations from Jonathan and John, learning to write and getting feedback on their work evoked emotional reactions in the students that might have demotivated them, as they encountered something very demanding and did not have the necessary repertoire to cope as they wished.

The students' experiences generally suggest the dominant academic writing ideal in educational science during the first semester puts a premium on perspective writing, in which student teachers are expected to write on a topic from different angles so as to reach a well-argued conclusion. There is also a strong emphasis on how to write correctly – in terms of structure, references and form – and many of the student teachers struggle with the process of entering higher education (cf. Lillis, 2001; Ask, 2005; Wingate, 2010). The data also suggests that, from the students' point of view, the perspective writing that could have been encouraged is overshadowed by learning the rules. One explanation for the strong focus on how to write can be found in the organization of ITE, since all student teachers read educational science during their first semester of teacher education. This means that most of them study this subject as newcomers to higher education.

Report writing in natural science (preschool teacher education)

We now turn to the preschool group and their experiences of academic writing in a new discipline (natural science). During the second year, the preschool group read natural science half-time (the other half is devoted to aesthetic studies). The students' experience of writing in natural science is that the dominant pattern is report writing, which means that they are supposed to know and report correct facts, related to 'hard science' (Becher & Trowler, 2001). This entails an epistemological shift for the students, since there is now less of a focus on perspective writing and form, and more on writing correctly on a specific topic. This shift is described by Helen and Bibi as different approaches to knowledge

Example 4: Photosynthesis is photosynthesis

Helen: Because when we study biology, photosynthesis for example is just one thing. In educational science you can ...
Bibi: Interpretation.
Helen: Interpret it my way and still get a good mark. Photosynthesis is photosynthesis, and you have to know it.
Bibi: Yes, pure facts (Focus-group interview 1, preschool teacher education).

In the example above, natural science is described as an objective subject with clear answers. In their academic writing, and in examinations, students are instructed to report facts to the teacher. This kind of report writing suits the students differently; some of them indicate that they feel more 'at home' with this sort of structure, since it is easier to see the difference between right and wrong. 'This is better for me, but it depends on what kind of person you are' (Focus-group interview 1, Eva). Eva likes to work with a subject that has a clear frame and

less room for interpretation, while for other students this type of writing raises new question marks:

Example 5: Googling 'report'

Caroline: I haven't written reports before, so now I'm struggling to understand what a report is. And I wonder if the teacher is going to explain?
Sara: I googled it.
Caroline: Yes, I googled it. But they should perhaps check if you have written reports before or not. It isn't obvious (Focus-group interview 2, preschool teacher education).

For Caroline and Sara, the vocabulary of writing reports is new to them. To be able to understand how to write in this way, they turn to the Internet for information. Report writing as a writing ideal also becomes evident if we look at what kind of feedback the students describe that they get on their work. Here there is less focus on the student teachers' writing process and more focus on the content of their writing. This means that the feedback teacher educators give to the students differs from their earlier experiences, since there is no written feedback, or comments, on their writing:

Example 6: Assessment but no feedback

Josephine: We get an assessment but no feedback. We know that before we write.
Louise: That's how it is here. The key focus is that we submit the work and answer the questions and not how we've done it.
Josephine: And that's also in our guidance, that there's no feedback if everything is correct. They tell us if everything is correct, or if you have to add to your work. So we know that when we write, that there'll be no feedback on our writing.
Helen: It feels pretty boring now when we are about to write. We write something, then we submit it, and then, yes, we get a pass or we don't. But we don't know what was good (Focus-group interview 1, preschool teacher education).

When the teacher educators' main focus is on reading student teachers' texts to check and ensure that they understand facts about natural science, there is no need to give written feedback on their writing. Instead of written comments, or feedback in the students' terminology, the assessment is in terms of right or wrong. While this might be an accepted and legitimate approach from the teachers' standpoint, it is apparently seen differently from the students' point of view. We can see from Example 6 that Helen misses the opportunity to get written feedback on her work. A possible explanation is that she is used to receiving feedback on form in other disciplines, and this is what she was expecting. Here, however, the students encounter a concentration on factual knowledge, with less emphasis on structural rules.

According to the students, the dominant writing ideal in natural science favours report writing, whereby student teachers learn facts and thereby become professional teachers with a knowledge of natural science. There is thus a demand for factual

correctness, and students have to learn how to write in the form of a report. Some students like this form of academic writing and feel at home with it, while for others the shift between disciplines brings new questions about how to write in this specific disciplinary culture. Feedback to students, or rather summative assessment, is given mostly in terms of right and wrong.

Reflective writing in aesthetic studies (preschool teacher education)

Alongside natural science, the preschool group devote half their time in the second year to aesthetic studies (art, music and drama). When the student teachers are engaged in aesthetic studies, the focus is not on academic writing; instead, they practise art, music and drama so as to be able to use this knowledge in their future work. This area is described by the students as comprising practical disciplines dealing with processes of performance, where they have the opportunity to try out different techniques. Helen describes how she is happy 'to be working practically. Rather than just reading, you work with your hands. Then you understand it much more easily than if you read it' (Helen). Although writing seems to be uncommon in aesthetic studies, the students do identify a few elements of academic writing in their art education:

Example 7: Is there any writing?

Louise: We have not written anything here.
  Bibi: No, I think ...
Helen: Well, we have the logbook here with Anita (art teacher).
  Bibi: Yes, I didn't think of that (Focus-group interview 1, preschool teacher education).

At the beginning of their second year they are given the task of writing logbooks to reflect on their experiences and choices in art education.[1] In this process of writing, the ideal is to reflect on aesthetic experience, or more specifically on art. 'When you get onto a course where you suddenly have the chance to express yourself, then there is nothing that is wrong. Everything is more correct' (Individual interview, Josephine). This way of thinking about writing, as reflection, also has consequences for how the teacher educator comments on their work. In the following example we can see how Louise experiences the feedback she receives on logbook writing:

Example 8: Interesting that you saw it from that perspective

Interviewer: Do you get feedback on your logbooks?
    Louise: Yes, we do.
Interviewer: What kind of feedback is in them then? What is the nature of it?
    Louise: Well, maybe about the perspective. I had, interesting that you saw it from that perspective, or good connections between these thoughts. Maybe it's about your own interpretation, so to speak (Individual interview, Louise).

Our findings indicate that the dominant writing ideal in art is reflective writing. Writing in their logbooks gives student teachers the opportunity to reflect on their experiences of doing art and to get a response from their educators. This academic literacy

resembles educational science in its emphasis on varied perspectives. However, while educational science relies on theory, the ideal in art is to write about experiential knowledge – at least the way the students interpret it.

Perspective writing in social science and history (secondary school teacher education)

After following the student teachers on the preschool education programme, we now turn to the secondary school teacher programme and the experiences student teachers there have of academic writing during their first semester in social science and history. The two disciplines are presented together, since our analysis has revealed a common pattern in the students' experiences of writing. When it comes to academic writing in these disciplines, there seems to be much in common with educational science, and the students feel that the writing they do is 'in similar forms' (Individual interview 1, Michel) and involves 'the same demands' (Individual interview, John). From the student teachers' point of view, the writing ideal is (again) perspective writing: writing on a topic in order to develop and reach a validly argued conclusion. The criteria for a valid line of argument comprise both content (discussing an issue) and form (being able to present the arguments in a convincing way). John describes how he has developed a new way of writing during his first year at university: 'Now I've learned that I think this, and I can find things in this book to support it. And then it feels more like the text becomes, how can I put it, it becomes real. Instead of just my own thoughts, you have other people's thoughts to support them' (Individual interview, John). For John, the continuity in writing ideals from one discipline to another is in one sense positive for his development as a writer, but at the same time he feels that the writing ideal in history is different from what he expected:

Examples 9: Learn *why* it turned out like this

John:	I thought it would be more…
Jonathan:	… pumping facts, kind of …
John:	Yes more … not switching subjects from week to week.
Jonathan:	… we would go through stuff properly as well. It's cool to be able to use a lot of names, and stuff like that, that is fun. But now it's just ignore the names, and ignore all… What we're going to learn is *why* it turned out like this? (Focus-group interview 3, secondary school teacher education.)

Although the students state that perspective writing is dominant in both social science and history, it is also important to highlight differences in this way of writing between the two disciplines. For example, Johan and Jonathan describe how there is a strong focus in history on cause and effect (Focus-group interview 3, secondary school teacher education), while Michel describes social science as a 'broad subject', with an emphasis on understanding a phenomenon from different angles, related to the roots of the discipline (sociology, human geography, political science, economics and gender studies) (Individual interview 1, Michel). While the writing ideals are close to each other, there are differences as regards how students are expected to write when it comes to matters of detail. The feedback from the teacher

educators makes it clear that there are differences in how they are to write, even if it is hard for the students to understand what the differences are:

Example 10: Teachers have such different opinions

> *Michel:* And different teachers have different ways of writing and working in general. You notice that. It's interesting, but it can also be quite difficult to understand.
>
> *Interviewer*: Yes.
>
> *Michel*: And that, I feel, might be a problem in general, that teachers have such different opinions and different views on how to write and how to do a job. It can easily be a problem (Individual interview 1, Michel).

At a general level, Michel labels both social science and educational science as disciplines that prefer perspective writing, but at a detailed level he states that the demands for academic writing are shifting all the time. This becomes problematic for Michel, Jonathan and John as they struggle to understand these differences: Why are there different ways to refer to sources in the different disciplines? Why does one teacher say one thing and the next one another? For Jonathan, in his first year as a student, formal changes of this kind are confusing: 'On the last course, everyone was a newcomer when it came to references, and we were given explanation after explanation after explanation about how to do it. And now on the next course, they throw it all away and say let's do it this way and explain nothing'. Although there is (once again) a strong emphasis on how to write in formal terms, the students also have experience of comments on content in both history and social science. In social science, Michel says that it's 'the content that has been assessed' (Individual interview 2, Michel), and John has a similar picture of the feedback from his educator in history, describing how the students get 'comments like, this is good or you can think like this' (Individual interview, John).

Our findings in this context indicate that the dominant writing ideal in both social science and history is perspective writing, and that there is a strong connection to earlier experiences of academic writing in educational science for this group of students. In terms of feedback, the students struggle with minor differences that cause problems in finding their way in their writing. Student teachers are also given feedback with a focus on content and on the process of becoming a social scientist or historian.

Step 2: Moving between disciplines

In this final section, we focus on the moves between different disciplines in preschool teacher and secondary school teacher education at a Swedish university. In this respect, the experiences of the two student teacher groups seem to differ in many ways.

Moving between different worlds of writing, or staying in the same neighbourhood?

Starting with the preschool group, all the student teachers express the idea that writing ideals change during their education. It is as if they move between different worlds of writing. Writing in educational science, natural science and aesthetic studies has little in common in their view, and the disciplines are described as very different. If we compare the students' experiences of preschool teacher education in this study, we can see how

Table 3. Shifts in preschool teacher education.

Subject	Writing ideal	Focus in feedback
Educational science	Perspective writing	Writing structure (form)
Natural science	Report writing	Right or wrong
Art	Reflective writing	Experiences

the writing ideal and the focus in feedback shift several times. Table 3 shows the dominant patterns in the student teachers' experiences of writing ideals and focus in feedback during the first two years of preschool teacher education:

The differences between disciplines described above indicate that student teachers need to orientate to changing ideals for their academic writing as they progress through higher education and switch from one course to another. Some students welcome such shifts in writing ideals, seeing them as opportunities to broaden their repertoire: 'I think variation teaches you a lot. I think so. So you get to experience things in different ways' (Individual interview, Josephine). For others, differences in writing between disciplines bring feelings of insecurity, since they have no clear picture of the reasons for them. One example of this is the way Louise reflects on the change of discipline that lies ahead: 'I think that moving [from educational science, our comment] to natural science in the final year is a smaller change than coming back. Then we will be thrown into that again, after a year here. Then we will see if we remember. When we start writing again' (Individual interview, Louise).

For the students specializing in secondary school education, the shift between writing ideals associated with course switching does not seem as dramatic, compared with preschool teacher education. In interviews, these student teachers express the view that the writing ideal is just the same, even if the subject they are writing about is different. This indicates that academic writing in educational science, social science and history seems to have a lot in common; student teachers are supposed to use perspective writing to develop knowledge in different areas. Another feature these disciplines have in common is that writing has a strong place in all of them, and that it is combined with formal rules on how to write. Table 4 shows the dominant patterns in the student teachers' experiences of writing ideals and focus on feedback during the first two years of secondary school teacher education at this specific university.

If we compare the trajectories the students on the two programmes describe, we can see that the dominant patterns differ a great deal. To use a metaphor, if the preschool group feel that they move between different worlds of writing, the secondary school group seem to stay in the same neighbourhood. Staying in the same neighbourhood, however, is not the same thing as staying on the same spot. Remaining in the same area can, on the one hand, offer opportunities to develop one kind of writing skill over time. On the other hand, it can lead to confusing feelings, since it is hard to understand minor differences when writing, on a general level, seems to stay the same.

Table 4. Shifts in secondary school teacher education.

Subject	Writing ideal	Focus in feedback
Educational science	Perspective writing	Writing structure (form)
Social science	Perspective writing	Content and form
History	Perspective writing	Content and form

Final remarks

One key finding of the present study is that most of the students describe their first period at university as something of a shock, since the ideals and demands of writing and reading are new to them (cf. Lillis, 2001; Ask, 2005; Wingate, 2010). From this point of view, it is important to consider how teacher education programmes are organized, since the order in which student teachers encounter different disciplines seems to have an impact on their experience of the writing process in those disciplines: it is quite different for students to write during their first semester, compared with writing in their sixth. Another important finding relates to concerns about how students move from one discipline to another, and what it might mean for their academic development as writers (cf. Lea & Street, 1998) and their formation as professionals. The empirical data suggests that shifts between disciplines in teacher education may mean that student teachers either move between and are enrolled in different worlds of writing, or stay in fairly similar writing cultures – depending on what kind of teacher education programme and tradition they are part of. These different experiences most likely create different possibilities and challenges.

The results also highlight the need for metacommunication between students and teachers about academic writing in different disciplines within teacher education, both in terms of disciplinary literacy in academia and future professional needs. The differences in writing between the disciplines found in this study are not random; rather, they need to be understood in relation to distinct scientific traditions in which writing serves different functions (cf. Lea & Street, 1998). At the same time, the participating students are often unaware of these patterns, making it hard for them to master 'course switching' and changes in writing ideals (cf. Lea & Street, 1998).

The movement between 'different worlds of writing' that is characteristic of preschool teacher education in this study may provide opportunities to develop a broader perspective on writing and to reflect on future work as a preschool teacher from different angles. Finding perspectives on pedagogical action, developing knowledge about natural science or reflecting on aesthetic experience may make a valuable formative contribution towards students' future professional work by introducing them to multiple dimensions of preschool teaching. However, there is also a risk that a broad palette of writing ideals could have negative consequences in terms of students gaining a deeper understanding of their disciplines and developing academic literacies of value for their future practice as preschool teachers.

By contrast, staying 'in the same neighbourhood' in writing could offer an opportunity to understand and develop one way of writing more deeply (as with the students in the study's secondary school group), although it can be a challenge to understand and discover differences in writing cultures that are close to each other (cf. Lea & Street, 1998). The results may also indicate that educational science, social science and history as disciplines are close to each other as soft sciences, in contrast to disciplines in preschool education, where there are clearer shifts between soft and hard sciences (Becher & Trowler, 2001). The differences can also be explained based on different views on their future work, in that the future preschool teachers seem to conceptualize their writing in a perspective of a broader professional responsibility, in comparison

with the future teachers of history and social sciences, who as writers seem to be constructed not primarily as professional teachers, but rather as historians and/or social scientists.

Note

1. This is a project that runs out of steam over time, and by the end of the year it is voluntary.

Funding

References

Alvesson, M., & Sköldberg, K. (2001). *Reflexive Methodology: New Vistas for Qualitative Research*. London: Sage Publications.

Arneback, E. Englund, T. & Solbrekke, T. D. (2016). Writing in and out of control: A long-itudinal study of three student teachers' experiences of academic writing in preschool teacher education. *Nordic Studies in Education*, *36*, 211–228.

Ask, S. (2005). Tillgång till framgång: Lärare och studenter om studieövergången till högre utbildning [Access to success: Teachers and students on the transition to higher education]. Växjö universitet: Licentiatavhandling i Nordiska språk.

Becher, T., & Trowler, P. (2001). *Academic Tribes and Territories: Intellectual enquiry and the culture of disciplines* (2nd ed.). Buckingham: SRHE and Open University Press.

Blåsjö, M. (2004). *Studenters skrivande i två kunskapsbyggande miljöer* [Students' writings in two knowledge-constructing settings]. Stockholm: Almqvist & Wiksell International. Stockholm Studies in Scandinavian Philology 37.

Ciuffetelli, Parker, C. (2010). Writing and Becoming [a teacher]: Teacher candidates' literacy narrative over four years. *Teaching and Teacher Education*, *26*, 1249–1260.

Darling-Hammond, L., & Lieberman, A. (2012). Teacher education around the world: What can we learn from international practice? In L. Darling-Hammond & A. Lieberman (Eds.), *Teacher Education Around the World: Changing policies and practices*. London & New York: Routledge.

Gardner, P. (2014). Becoming a teacher of writing: Primary student teachers reviewing their relationship with writing. *English in Education*, *48*, 128–148.

Graue, E. (2011). Writing in education research. In C. F. Conrad & R. C. Serlin (Eds.), *The SAGE Handbook for Research on Education*. Los Angeles, London, New Delhi, Singapore, Washington DC: SAGE.

Ivanič, R. (1998). *Writing and Identity: The Discoursal Construction of Identity in Academic Writing*. Amsterdam: John Benjamins.

Ivanič, R. (2004). Discourses of writing and learning to write. *Language and Education*, *18*, 220–245.

Klette, K., & Carlsten, T. C. (2012). Knowledge in teacher learning. In K. Jensen, L. C. Lahn & M. Nerland (Eds.), *Professional Learning in the Knowledge Society, Volume 6 in the series The Knowledge Economy and Education*. Rotterdam: Sense Publisher.

Kvale, S., & Brinkman, S. (2010). *Den kvalitativa forskningsintervjun* [The qualitative research interview]. Lund: Studentlitteratur.

Lea, M., & Street, B. (1998). Student writing in higher education: An academic literacies approach. *Studies in Higher Education*, *23*, 157–172.

Lave J. & Wenger E. (1991) *Situated learning. Legitimate peripheral participation*. Cambridge: Cambridge University Press.

Lillis, T. M. (2001). *Student Writing: Access, Regulation, Desire*. London: Routledge.

Macken-Horarik, M., Devereux, L., Trimingham-Jack, C., & Wilson, K. (2006). Negotiating the territory of tertiary literacies: A case study of teacher education. *Linguistics and Education, 17*, 240–257.

OECD (2010). PISA 2009 *Results: What Students Know and Can Do – Student Performance in Reading, Mathematics and Science*. Paris: OECD.

Smeby, J.-C. (2012). The significance of professional learning. In K. Jensen, L. C. Lahn & M. Nerland (Eds.), *Professional Learning in the Knowledge Society*, Volume 6 in the series The Knowledge Economy and Education. Rotterdam: Sense Publisher.

Street, B. V. (1995). *Social Literacies: Critical Approaches to Literacy Development, Ethnography, and Education. Real language series*. Longman: London.

Wibeck, V. (2000). *Fokusgrupper: Om gruppintervjuer som undersökningsmetod* [Focus groups: On group interviews as a method of investigation]. Lund: Studentlitteratur.

Wingate, U. (2010). The impact of formative feedback on the development of academic writing. *Assessment & Evaluation in Higher Education, 35*, 519–533.

Wingate, U. (2012). Using academic literacies and genre-based models for academic writing instruction: A 'literacy' journey. *Journal of English for Academic Purposes, 11*, 26–37.