

## Voices of student teachers' professional agency 1

### **VOICES OF STUDENT TEACHERS' PROFESSIONAL AGENCY AT THE INTERSECTION OF THEORY AND PRACTICE**

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## 1. Introduction

The aim of this exploratory study is to examine what kind of professional agency is manifested in student teachers' expressions when research skills studies and teaching practice are integrated, and discuss its implications for bridging theory and practice in teacher education. The context of the study is Finnish class teacher education, and student teachers' professional agency is investigated as narrative practice, shaping itself through language.

In teacher education, as well as in higher education in general, there is a great challenge to integrate theory (research-generated knowledge) and practice to prepare students for working life (Healey, 2005; Tynjälä, Välimaa, & Sarja, 2003; Tynjälä, Slotte, Nieminen, Lonka, & Olkinuora, 2006). The so-called 'theory-practice gap' in teacher education has also been seen as a major obstacle to student teachers' learning and professional development (Zeichner, 2010). As a result of the gap, student teachers, as well as newly qualified teachers, have problems linking the theories taught in teacher education to their practical work in classrooms (Leijen et al., 2015). On the other hand, teaching educational theory and doing academic teaching practice separately in teacher education programmes may also produce a false dichotomy since, in teachers' daily work, theory is not separable from practice (Stenberg, Rajala, & Hilppö, 2016).

Today, in the leading systems of the educational field, teaching is seen as a research-informed and research-engaged profession, requiring high-level skills and knowledge (Darling-Hammond et al., 2017; Toom & Husu, 2018). Teacher education and teachers' professional development in these societies are typically based on research about student and teacher learning (Darling-Hammond et al., 2017). Moreover, the general focus of teacher education throughout the world has shifted toward being more research-based (Afdal & Spernes, 2018; Toom et al., 2010; Westbury, Hansen, Kansanen, & Björkvist, 2005). Learning research skills is at the heart of developing the teaching profession toward the goal of integrating theory and practice (Cochran-Smith & Lytle, 2009; Tatto, 2015). However, recent studies (Puustinen, Säntti, Koski, & Tammi, 2018; Säntti, Puustinen, & Salminen, 2018) suggest that this integration is a multifaceted problem, which requires further research. Despite the growing body of literature on different aspects of research-based teacher education (Afdal & Spernes, 2018), few studies have indicated the role of research skills in integrating theory and practice in teacher education, though students are supposed to evolve

to become agentic professionals, autonomously and actively utilising gained knowledge and skills in their work.

In line with endeavours to enhance teaching quality worldwide, teachers must have a sense of professional agency (Darling-Hammond et al., 2017). Teacher education systems should be designed thoughtfully, and student teachers' professional agency in different learning environments must be more thoroughly discovered (Edwards, 2017; Orland-Barak, 2017). In this study, professional agency is understood as student teachers taking ownership and authority over their learning in a given sociocultural context to develop their expertise (Juutilainen, Metsäpelto, & Poikkeus, 2018; Lipponen & Kumpulainen, 2011; Rajala, Martin, & Kumpulainen, 2016). Research skills are examined as a tool for student teachers, mediating their professional agency (cf. Hopwood, 2010).

Looking at the narrative practices of student teachers' professional agency, this study reveals how students, in the flow of discourse, impose order over their experiences and make sense of events and actions in integrating theory and practice (cf. Riessman, 2001). More specifically, in relation to research skills, this study explores how student teachers position themselves as agentic beings, assuming control over events and actions, and, on the other hand, as victims of circumstances—shifting between these positions (cf. Riessman, 2001). The narrative aspects of professional agency in teacher education, as well as in education in general, have been scarcely studied (Hilppö, Lipponen, Kumpulainen, & Virlander, 2016; Martin, 2016). However, their benefit is crucial, since they help reveal features that would otherwise remain hidden. Moreover, since the attention of narrative practice is on speech genres in general, not merely on individuals, this approach creates a holistic view of student teachers' professional agency (cf. Martin, 2016). This can be considered as a contribution for both research on teacher education and development work in teacher education such as curriculum development and programme leadership.

## **2. Theoretical framework**

### *2.1. Research skills' roles in integrating theory and practice in teacher education*

To understand the divide between theory and practice in teacher education, it is important to see that the gap in teacher education is merely one part of a gap between educational research and practice, which has been acknowledged as existing in the whole field of education (Korthagen, 2017). The main problem is that practitioners, such as

teachers, do not use the scientific knowledge produced by researchers (Broekkamp & van Hout-Wolters, 2007). Thus, the usability of educational research, as well as the skills required for using it, are both necessary.

However, from a different point of view, this gap might not exist at all. For example, constructivism, or other wider ideas and theories, have immensely impacted daily school work in Western Europe, which indicates that educational research has had a strong cultural role on teaching practices (Biesta, 2007). The other question pressing query—which further questions the existence of the educational gap—is: ‘Which way, and in what amount, should theory and practice be integrated?’ Researchers and practitioners are supposed to act on different ontological and epistemological levels (Hammersley, 2002). However, to be able to foster pupils’ agency in the knowledge society, teachers need abstract and theoretical knowledge along with their personal knowledge and experience (Klette & Carlsten, 2012). Thus, integrating theory and practice in teacher education requires urgent facilitation. Therefore, it is important to go beyond the ‘gap’ discussion and examine what the integration demands from both student teachers and teacher educators.

In higher education, integration of theory and practice is the key foundation of the curriculum, since programmes produce professionals for different functions in society. Some views (e.g., Toom et al., 2010; Westbury et al., 2005) on the realisation of integrating theory and practice in the Finnish teacher education system are very optimistic. However, today, it has turned out that this integration is a tricky task, which has not yet been accomplished (Puustinen et al., 2018; Sääntti, Rantala, Salminen, & Hansen, 2014). This task is not solely in the hands of teacher educators, since the knowledge base for professional work is always subject to negotiations beyond the academic community and embedded in a wide set of social, professional and political institutions and frames (Afdal, 2017; Darling-Hammond et al., 2017), which student teachers’ narratives reflect.

How to implement research-based teacher education varies between countries. In Finland, class teacher education is a five-year academic study programme leading to a master’s degree. The students study educational science as their major and during their studies engage with a variety of theories of learning, teaching and education in general. The possibilities for integrating theory and practice in teaching differ, too. In Finland, the profession of class teacher is strong and valued in Finland. Teachers usually stay in their profession until retirement (Niemi et al., 2018). Moreover, class teacher education is one of

the most attractive university programmes, and only a small percentage of the applicants are admitted through selection proceedings, including a suitability test (Mikkilä-Erdmann, Warinowski, & Iiskala, 2019; Niemi et al., 2018). Relative to other countries, Finnish teachers have a high degree of autonomy in their work. There is no school inspection system in Finland, and there is a climate of trust in academic teacher education and a high level of expertise among qualified teachers (Eteläpelto, Vähäsantanen, & Hökkä, 2015). This could be expected to create a basis for strong and multifaceted professional agency (Eteläpelto et al., 2015).

In teachers' work, knowledge and understanding are intertwined with practical action so that the field can be depicted as demanding knowledge-intensive work in complicated and constantly changing situations (Toom & Husu, 2018). Hence, the recent trends indicate that teacher education tends to locate its foundational principles in educational theory rather than in craft-practice (Kansanen, 2014; Westbury et al., 2005). However, mechanical application of research-generated knowledge is not enough, since teaching continually involves unexpected and unique situations requiring professional judgement tailored to each situation's specific characteristics (Biesta, 2007). This is where research skills come forward. Research skills are inevitable for elaborating theory-based action in demanding situations.

Educational research has many characteristics that point out to agency. It provides instrumental knowledge, which covers, for example, effective teaching strategies and effective practices for supporting learning (Biesta, 2007). Furthermore, educational research has a cultural role. It helps people to see things differently, to visualise problems and, consequently, to see opportunities for action and improvement where they could not see them before (Biesta, 2007). Educational theories help students conceptualise their practice. By internalising theory, they can rise above the immediate 'here-and-now' of school life to understand phenomena and rationalities behind the ways they teach (Stenberg et al., 2016).

Research skills—referring to skills needed for understanding, transforming and producing information—is the core of any academic programme (Murtonen, Olkinuora, Tynjälä, & Lehtinen, 2008; Murtonen & Salmento, 2019). In Finnish teacher education, learning formal research skills forms a constitutive part whereby the students learn to take an analytical and open-minded approach to their work, to draw conclusions based on their observations and experiences, and to develop their teaching and learning environments in a systematic way (Krokkfors et al., 2011). In general, research skills may promote critical and

creative thinking, which have been argued to be required of every individual in the increasingly complex society and working life (Niemi & Nevgi, 2014; Murtonen, Rautopuro, & Väisänen, 2007). By learning research skills, students rehearse their ability to integrate research and theory in practice (Stenberg et al., 2016). At the same time, research skills may give students more room to act agentially in rapidly changing situations.

Central to the integration is, moreover: 'What is meant by research-based teacher education?' Research-based teacher education can refer to the qualifications of teacher educators, their participating in research projects and the goals of the teacher education programme leaders (Munthe & Rogne, 2015). Research-based teacher education can be organised by emphasising the research content itself or the research problems and processes (Healey, 2005). On the other hand, research-based instruction can be teacher focused (in which the students are as an audience) or student focused (in which the students participate actively) (Healey, 2005). Therefore, research-based teacher education can be organised in multiple ways, and the research base does not necessarily guarantee that the student teachers' research skills are enhanced. Although all the dimensions are present during the instruction, student-focused approaches emphasise students constructing their own knowledge through active participation (Healey, 2005).

In the present study's context of Finnish teacher education, learning research skills plays a strong role. In research literature (Niemi & Nevgi, 2014; Tatto, 2015; Toom et al., 2010), as well as in policy (Cena, 2014), it is assumed that, by adopting a research-oriented identity, students will be better prepared for working life (Murtonen et al., 2008) and become experts who produce new knowledge and develop their own competencies as well as their schools. The goal is to produce research-based professionals who will found their educational decisions on both rational and experiential arguments (Westbury et al., 2005). However, for sufficient teacher education, this goal should be integrated with teaching practice in the controlled circumstances of university training schools (Kansanen, 2014).

The context of academic education both requires, and is apt to boost, agentic behaviour. The main ideas of higher education include autonomy and freedom (Barnett, 1990). However, professional agency in university-level education does not develop by itself. It requires a well-argued, evidence-based foundation and interactional learning environments in which students are positioned as contributors (Lipponen & Kumpulainen, 2011). Pedagogical solutions, which bring research to the students' lives, can have a role in

this process. Researchers already know that learning research skills in a practical context relieves the theory-practice gap for student teachers (Leech, Onwuegbuzie, Murtonen, Mikkilä-Erdmann, & Tähtinen, 2007). However, what kind of professional agency is manifested in student teachers' expressions on learning research skills in a practical context in teacher education is still unknown.

## *2.2. Narrative practices of student teachers' professional agency*

The capacity to produce effects is central to human activity (Maclellan, 2017). Since the Enlightenment, education in Western societies has been intended to support people in develop individual agency (Lipponen & Kumpulainen, 2011). Thus, agency is a focus itself, which conceptual artefacts, in this study research skills, mediate (cf. Hopwood, 2010). At the same time, it is a means, for example a means to gain expertise in teaching (cf. Toom, Pyhäntö, & O'Connell Rust, 2015) or to achieve other capability where routine performance is not enough (Rajala et al., 2016). These two ever-present dimensions make agency challenging to conceptualise. In examining agency one must also take into account that agency is not achieved in a vacuum, but always manifests itself in relation to a given sociocultural context (Edwards, 2017; Rajala et al., 2016), in this study learning research skills in Finnish research-based teacher education. Moreover, it is personally constructed through many forms of interactions within the context (Oolbekkink-Marchand, Hadar, Smith, Helleve, & Ulvik, 2017).

During the last few decades, the agency of teachers (Eteläpelto et al., 2015; Oolbekkink-Marchand et al., 2017; Pyhäntö, Pietarinen, & Soini, 2015), teacher educators (Hökkä, Vähäsantanen, & Mahlakaarto, 2017) and student teachers (Juutilainen et al., 2018; Lipponen & Kumpulainen, 2011; Toom, Pietarinen, Soini, & Pyhäntö, 2017) has raised interest, and teacher education has been stated as having a remarkable role in fostering student teachers' professional agency (Edwards, 2015).

As a means, individuals actively approaching their own work has been connected to them utilising teacher competencies (Niemi, Lavonen, Kallioniemi, & Toom, 2018), developing expertise (Toom et al., 2015) and becoming autonomous (Hermansen, 2017; Maclellan, 2017; Oolbekkink-Marchand et al., 2017). Agency has also been claimed to be the most important pedagogical resource (Maclellan, 2017). However, promoting agency is not easy and cannot be done simply by giving extra lectures (Soini, Pietarinen, Toom, & Pyhäntö, 2015) since it is not an attribute that can be acquired (Edwards, 2017) but is, rather,

a multifaceted and situationally constructed phenomenon (Eteläpelto, Vähäsantanen, Hökkä, & Paloniemi, 2013). Student teachers' lack of agency has been recognised as a problem (Toom et al., 2015). The sense of agency can be facilitated in teacher education, but researchers and teacher educators still know very little about how to do so (Soini et al., 2015). The present study contributes to this issue by offering a more nuanced picture of the qualities of student teachers' professional agency.

Agency, in general, has been extensively theorised, particularly in sociological literature (Emirbayer & Mische, 1998). In this study, agency is used in the educational context and is linked to becoming professional. Thus, the main concern here is professional agency, which is defined as student teachers actively taking possession of received instruction (in this case the instruction of research skills) to develop their expertise in, and in relation to, a certain context (Lipponen & Kumpulainen, 2011; Rajala et al., 2016). They can take such ownership by distancing themselves from their immediate surroundings (Mäkitalo, 2016) and stepping out of the contextual rules and regulations to create their own professional rules (Oolbekkink et al., 2017). When they are capable of making distinct observations, they are enabled to transform the meaning of activities to influence their future work (Mäkitalo, 2016), instead of just passively experiencing things (Juutilainen et al., 2018) or repeating given practices (Oolbekkink et al., 2017).

Agency, teacher agency and professional agency have been used almost synonymously in the context of student teachers, although professional agency emphasises links to professions and professional development, whereas agency can also cover fields other than the professional. Agency, in terms of student teachers, refers to both teacher education and their future professions as teachers (Soini et al., 2015).

Agency can be recognised (Soini et al., 2015) and practised (Eteläpelto et al., 2015), but not really reified (Biesta, Priestley, & Robinson, 2015). Edwards (2015, 2017) describes agency as the interplay between person and practice or culture, where professional knowledge and values are embedded in practices, and the actors are interpreting and responding to the demands of practice. In this vein, Eteläpelto et al. (2013) see agency from a subject-centred, socio-cultural approach, in which agency is always exercised and manifested within certain socio-cultural and material constraints and resources. At the same time, each subject's practical and embodied relations to the world—for example, identity—must be taken into account (Eteläpelto et al., 2013).



Student teachers negotiate agency in education to construct meaningful careers and life courses (Eteläpelto et al., 2013). By looking at the narrative practices of student teachers' professional agency, it is visible how students, in the flow of discourse, impose order on their experiences and make sense of events and actions (cf. Riessman, 2001). This view of narrative practice emphasises the role of language as multiple and fragmented, and texts are seen to reveal narrative as practice within social interaction (de Fina & Georgakopoulou, 2008). Student teachers can position themselves in relation to research skills as agentic beings, assuming control over events and actions, or as victims of circumstances. They can also shift between these positions, giving themselves agentic roles in certain scenes and passive roles in others (Riessman, 2001).

It is evident that there are different ways research skills as tools may mediate professional agency (cf. Hopwood, 2010). The narrative practice approach reveals the various ways in which student teachers relate themselves towards research skills. Moreover, narrative practice, and the possible voices in which student teachers may speak, empower and constrain the students' learning processes. A multifaceted understanding of how the tool of research skills can be used by student teachers is crucial to training research-based professionals.

### **3. Research questions**

The current study examines how Finnish first-year student teachers' professional agency is manifested as narrative practice in class teacher education when research skills studies and teaching practice are integrated. Thus, the research questions are as follows:

1. What kind of professional agency is manifested in student teachers' expressions when research skills studies and teaching practice are integrated?
2. How does the student teachers' professional agency unfold as narrative practice?

The two research questions are understood as being intertwined with each other. Therefore, in the following analysis, they are viewed inseparable from each other.

### **4. Research context**

This study's context is Finnish class teacher education. The examined students will have general teacher qualifications and the qualification to teach grades 1-6 (ages 7-13 years) in comprehensive school. First-year student teachers were chosen, since the beginning of studies is an epochal and fragile phase in terms of developing expertise (Juutilainen et al., 2018; Soini et al., 2015).

Research skills at the university in question as well as in Finland in general include research methods such as observation, interview and survey and, on the other hand, information seeking, research ethics, data analysis methods and scientific writing. In Finland, student class teachers also spend several periods in teaching practice in university training schools, where they are assumed to show agency and apply theoretical knowledge to practice (Mikkilä-Erdmann et al., 2019). Nevertheless, research skills studies and teaching practice have been claimed to be separate from each other. In the university considered here, research skills studies and teaching practice are parallel, beginning in the first term. In research skills studies the students are supposed to gain a basic understanding of educational research methods and their practical application in teachers' work.

The studies are integrated in such a way that, during teaching practice, students carry out research in small groups—the first-year students by observation and interview. However, some features of these two domains are separate. Administratively, there are not one, but two, study modules—one for research skills studies and one for teaching practice. Moreover, research skills instruction takes place in the Faculty of Education building and is facilitated by teacher educators who also act as researchers, whereas teaching practice instruction is held in the university training school and is guided by training school teachers.

At the curriculum level, there is also both integration and separateness. In the first-year's teaching practice, educational theory is not present, but the emphasis is on becoming acquainted with the school context (University of Turku, 2018). However, in the curriculum of the second-year teaching practice, one of the learning goals is to understand the significance of theoretical studies in planning, carrying out and assessing practical situations (University of Turku, 2018). After teaching practice, the students write a report in which they are instructed to reflect, amongst other things, on conducting research. Similarly, as part of research skills studies, first-year students write a research report.

## **5. Method**

### *5.1. Data collection*

Written texts from first-year student class teachers were retrieved from their teaching practice reports in the autumn of 2017 from the said university. The analysis consisted of 79 reports, which were 96 % of the reports of the students enrolled in this teaching practice. Of those 82 students who were enrolled in teaching practice, 60 were female, and 22 were male.

The age of the students varied between 19 and 55 years. However, most of the students were in their early twenties.

In their reports, the students answered the following questions concerning research skills: *'How did the conducting of research during the teacher practice succeed? What did I learn? How does it affect my professional growth as a teacher? How do I see the role of research in developing teacher's work?'* Research skills were only one part of the report, and only this part of the report was used, since the other parts concerned other features of teaching practice and did not relate to research skills. 79 texts were retrieved, and the length of the texts varied between one-half of a page and a full page (Arial, 12 pt., 1.5 line spacing). The data had been anonymised by the teacher educator responsible for the teaching practice.

### 5.2. Data analysis

The data were analysed from a narrative approach, since agency was seen as manifesting itself at the level of language (Eteläpelto et al., 2013) and requiring interpretation—since researchers cannot access the human self, but try to understand the person, intentions and commitments within the social framework (Edwards, 2015). The main idea behind using a narrative approach is that, within mundane talk, humans make choices, which reflect wider structures. People give priority to certain occasions and close their eyes to others. They highlight things by repetition and use evaluative language to imply their orientations (Hyvärinen, 2008). Key turning points in narration contain plenty of evidence of expectation, and, thereby, exhibit the thickness of expectations, which reveal social and cultural modes of perception (Hyvärinen, 2008). To understand how student teachers construct agency, emphasis was not put only on traditional storylines, but rather on atypical, small stories, with a functional perspective on narrative and language use in general (Bamberg & Georgakopoulou, 2008), in line with the theoretical body of narrative practice (de Fina & Georgakopoulou, 2008; Riessman, 2001).

Before the main analysis, an overall view of the narration and the stories was taken. The data were handled as a whole entity, instead of looking merely at single students' texts. This way was chosen to grasp a wider picture of *what* the students were telling, as a whole, when answering the stated questions, *how* they told it and *why*. Thickness and looseness of the narration in the data were considered, and the thick portions received particular attention. The narration was not, for all parts, clear and consequential. Some students answered the

questions shortly. Thus, small stories (cf. Bamberg & Georgakopoulou, 2008) were characteristic to the data.

However, some of the texts were thick narratives. In such thick stories, much I-position was used, and personal views or experiences were reflected. Typically, the students told how collecting research data had first felt complicated due to practical matters, such as time resources and technical problems, and how they would have preferred to concentrate only on teaching practice. However, in most of the stories, they had managed to solve the problems, and conducting the research had become interesting and even fun. Finally, they told what they had realised after rehearsing research skills—such as, for example, that their ability to notice things in their classrooms had improved.

In the more precise analysis, the aim was to understand what kinds of voices the student teachers used for articulation and, consequently, what kinds of professional agency these voices depicted since professional agency emerged from the data. Thus, firstly, *the metaphor of voice* (Bakhtin, 2002) was used to discover which kinds of orientations the students possessed. In general, expressions people use have formerly been others' expressions, transferred through a dialectic process (Bakhtin, 2002). In this analysis, certain points were identified to denote a certain voice. The advantage of this method is that the focus is not on a single student but on wider speech genres that manifest different qualities of professional agency.

Based on data-driven analysis, four distinct voices could be identified. Furthermore, it turned out that certain voices appeared more agentic than others. The voices were intertwined with each other, so that a single student used different voices. Some expressions could have been categorised to represent several voices, so the differences were not always clear. However, four voices could be separated from each other. The voices were named as follows: *voice of enthusiasm* (cf. Section 6.1), *voice of uncertainty* (6.2), *voice of rejection* (6.3), and *voice of anticipation* (6.4). In the data, 60 % were identified as voices and 40 % as declarative without a personal orientation, e.g. that 'research is important in teachers' work' or that 'we conducted the interviews during the breaks'. The voice of enthusiasm was the most dominant voice (32 % from all the data). The second common was the voice of uncertainty (18 %). The voice of rejection (4 %) and the voice of anticipation (6 %) were less dominant. In defining the names of the voices, the students' own expressions, as well as

interpretation, were used. In Table 1 the voices are presented and in further sections explained in detail.

Table 1 Voices of student teachers' professional agency

<b>Name of the voice</b>	<b>Description</b>	<b>Characters of professional agency</b>	<b>Percentage from the whole data</b>
Voice of enthusiasm	Research skills as appropriated	Enacted	32 %
Voice of uncertainty	Research skills as complicated	Limited	18 %
Voice of rejection	Research skills as a must	Opposing	4 %
Voice of anticipation	Research skills as important but not yet mastered	Open	6 %

After the voices were defined, *expectations* in the texts were examined (Hyvärinen, 2008; Tannen, 1993). People negotiate between their own and cultural expectations, and that expectations are social and conventional (Hyvärinen, 2008). Tannen (1993) has summarised a list of what she calls 'evidence of expectation'. In all parts—which included some of the four voices—, especially all repetitions, hedges, negatives, contrastives, evaluative language and evaluative verbs as general principles or guidelines were analysed (Hyvärinen, 2008; Tannen, 1993). Significant features were recognised in the data, and a more thorough understanding of the narrative nature of professional agency could be achieved. Evidence of expectation was found throughout the data.

## 6. Results

In the following, each voice is presented in its own section. In each section, firstly, the voice is generally introduced, and, secondly, the expectations contained in each voice are examined more closely. The first quotation in each section illustrates the voice in general, and the second quote tackles the approach of expectations. In the latter quotations, the evidence of expectation is marked in bold. Quotations which show much evidence of expectation were chosen to best illustrate the expectations.

6.1. *Voice of enthusiasm*

In my opinion, examining pupils is important, but a teacher seldom has an opportunity of being a fly on the wall, examining the class without impacting in any way on the pupils' activities. Every teacher should have a chance to do this kind of observation on his or her own pupils.

In the above quotation, the student teacher really sees observation as an opportunity to learn. The student feels privileged because of having a chance to do this, but, normally, teachers do not have this kind of opportunity to observe their classes from the outside. The student uses expressions such as '*to have a chance*' and '*every teacher should*', which imply excitement about learning to teach by observing the class like a researcher. Observation was the main, specific research skill rehearsed during this teaching practice. It seems as though the student is adopting research skills that are very useful, in a practical sense, for the future profession. Characteristic to this voice is positivity towards research and research skills and an easy and natural approach to using research skills in teachers' work. Thus, the voice implies *enacted professional agency*. The students had not just been convinced of the idea of using research skills, but they had made research skills as their own. A positive circle towards becoming a research-based professional, who willingly participates in self-development, has already begun in the early phase of studies.

Taking a closer look at the expectations contained in this voice, it is evident that many expressions describe enacted agency since research skills, as well as research in general, were described as '*a great opportunity*' or '*a useful tool to get, to have, to open up or deepen, to be of help in or to ease*' something (e.g., giving a chance for the teacher to concentrate on important matters in the classroom).

It is also intriguing to note what the students actually spoke about in each voice. Some students, using the voice of enthusiasm, pondered whether there were other means to develop teachers' work, and they concluded that there were not any, or, at least, that research was the best. In addition, research was often contrasted with common sense or personal opinions, which the students did not find reliable enough to be used in developing teachers' work. For some, research and the research skills were seen as a solution to keeping up with the rapidly changing world. Furthermore, teacher education at the master's level in academia was described as being near the roots of knowledge and science. Thus, the teachers were not merely swallowing knowledge produced by others, which can be seen from the lens of

teachers' collective autonomy (Hermansen, 2017). In the following quotation, strong evaluative and personal expressions are used.

The significance of research in teachers' work **grew a lot in my eyes**. I **noticed** that teachers' work is, in other words, consistent conducting of research. This research is **not merely** concentrated on pupils **but also** on oneself and one's own teaching. Moreover, the research publications mean **more** to me. **Now**, I understand to **appreciate** research results **more** and I am **aware** that the information **gained** by them is **not** some kind of **everyday talk** but **with the help** of them, one can **really strive** to **improve** pupils' learning outcomes, teachers' work, school satisfaction, to **intervene** in problems etc. Research goes **deeper than the surface**, it **opens a door** to the **world** that actually might **not** be seen with **bare eyes** in everyday life **but** that, **however**, has a **great impact** on pupils and on teachers.

In this quotation, the student uses very personally language—the I-position, describing how his/her views have changed. The student also uses rich metaphors, such as '*opening a door to the world*' and '*going deeper than the surface*'. The student also uses repetition to explain, in various ways, his/her realisations about the significance of research in teachers' work. The student contrasts research with '*everyday talk*', but does not contrast research with teachers' work at all. This implies that the student has already assumed the idea of teachers as research-based professionals.

### 6.2. Voice of uncertainty

Conducting research with such young pupils was partly challenging because the pupils were glancing at the iPad all the time as we were videoing the lesson and they kept asking if the camera was on. Although we said it is not on, many of them turned to watch it and some of them were making funny faces in front of it. Later, the interviews went well, in my opinion, although the pupils were anxious in front of the camera.

In this quotation, the student focuses on how the pupils reacted. The student seems to find the data collection awkward, both for himself/herself and for the pupils. Furthermore, the student uses the expression of conducting research *with* pupils, not conducting research *on* pupils, which implies that the student finds the pupils' roles to be significant.

Characteristic to the voice of uncertainty is paying attention to outer matters, such as how the pupils reacted to the data collection or what the training school teacher's attitude was.

Furthermore, students using this voice worried that they could not participate in helping the teacher or that the data collection might disturb the pupils' learning activities in the classroom. They also concentrated on describing what kind of problems they had had with technology, schedules or cooperation in the research groups. On the surface, this voice appears quite negative and it can be argued to imply *limited professional agency*.

However, after a closer analysis, it appears that this voice is rather a matter of uncertainty about doing something new than of negativity towards research or research skills. Many students reported '*stress*', '*problems*' and, '*difficulties*' in collecting the research data during the teacher practice. They wrote about having been nervous about their teaching practice and regarded the research task as extra work. Despite this, many, but not all, of them depicted the role of research in developing teachers' work as remarkable. Thus, it seems that some of the problems were comparatively practical in nature and could be fixed quite easily.

Nevertheless, concerning professional agency, situational, temporal and relational matters cannot be underestimated since the quality of the experienced learning environment—especially its social and emotional dimensions—is a significant predictor of the development of student teachers' professional agency (Soini et al., 2015; Toom et al., 2017). If a student considers learning research skills to be a nuisance, this attitude will not enlarge professional agency much, despite the student possibly having a positive attitude towards research in general. An example of focusing on the constraints experienced in the learning environment is given below.

**Furthermore**, because of the schedules, we had to conduct our research the same week we should have been teaching, which **resulted** in that we were **not** in the teacher **resource** of the class, **although** the pupils did **not** notice it. **In addition**, the pupils were at this stage **fond of us to such degree** that videoing **passively** was **difficult**.

In the quotation above, the student regrets that his/her group was not available in the '*teacher resource of the class*'. It seems that the student is taking responsibility for the schoolwork, although this is not, in fact, part of his/her responsibilities. The focus of the student is on practical matters, instead of his/her own expertise. The student also states that



the pupils could not, however, see that they were away from the teacher resource. This indicates that the student wonders what the pupils could or could not see. Furthermore, the student uses strong expressions (e.g., *'being fond of'*) to explain why conducting research felt difficult. The quotation depicts a variety of reasons as the student tries to explain why the research task felt uncomfortable.

### 6.3. *Voice of rejection*

I do not consider research as an essential part of teachers' work. In teaching, there are plenty of things to plan, so I find it unrealistic for every teacher to have the energy to be engaged in research, too. On the other hand, research is a useful way of learning something new about teaching and learning but, however, not a matter of necessity. In my opinion, the teacher's expertise and an eye for teaching in one's own classroom is more important.

The main message of the above quotation is that the student finds it unrealistic to conduct research at work. Strong expressions such as *'every'* and *'not a matter of necessity'* are used. The student also tries to define what is more important than research—determining that teacher expertise is more valuable. This clearly indicates that the student has not adopted the idea of teachers being research-based professionals who use research skills in a holistic manner, embedded in their expertise. Thus, the student sees research and teaching as separate from each other. This is apt to cause stress and pressure, since the student knows that teachers' work is challenging as such.

The students who utilised this voice seem to understand very different things about the concept of research. In cases when the students think they are supposed to conduct real research at work in the future, they decline the whole topic and idea of research skills. It can be argued that the voice of rejection manifests agency that is reserved by its nature, thus implying *opposing nature of professional agency*. The pieces of theory and practice are seen as difficult to put together, and the arguments in favour of the importance of research skills are not digested.

Considering this from the approach of expectations, it can be said that this voice was used in two rather different ways—either very shortly, or in a balancing and contrasting way. Writing shortly implies that the students did not experience learning research skills as personally meaningful. However, common to the both uses was seeing research skills as

separate from teachers' work. An example of a balancing use of this voice is presented below.

**Anyway**, teachers' work in itself is some kind of research. The teacher **must all the time** conduct research on the pupils of the class, level of knowledge, atmosphere etc. **Of course**, it is **not official** research, but **important nevertheless**. **However**, I think there are **plenty** of **different** things that **go before** conducting research. **Anyhow**, the **most important** thing is to be in the classroom **for** the pupils, **not for** research. It is **important** to conduct **real** and **vaster** research concerning teachers' work. It **supports** and **helps** the teacher to **support** and **understand** the pupils by **new means**. **In my opinion**, **however**, they **should** be conducted by researchers who can **concentrate full-time** on research.

In this quotation, the student is balancing between two ideas: the idea that research is important in teachers' work and the idea that research might be stealing teachers' attention from the children. The quotation includes a rich variety of evidence of expectation as the student tries to put these two pieces together, e.g. '*however*', '*nevertheless*', '*all the time*', '*real*', '*vaster*', '*newer*', '*important*', and '*should*'. Furthermore, the text is very personal. The student uses the phrases '*I find*' and '*in my opinion*', which illustrate that he/she is seriously deliberating the question.

Looking at the expectations strengthens the impression that the students using the rejecting voice feel a strong pressure of being obliged to conduct educational research alongside or in their daily work in the future. They disagree with this and reject the idea of research skills serving as a means to improve and to be of help in their future work, and, thus, research and teachers' work remain separate for them. In part, it is no wonder that they understand the purpose of research skills in this way, since this is actually the way the research skills are taught in this learning environment—collecting data alongside teaching. However, if teacher educators could make the research skills stance (Cochran-Smith & Lytle, 2009) more visible to the students, it might be easier for the students to personally shape the meaning of research in teachers' work for themselves, and, potentially, grasp the research skills tool.

#### 6.4. Voice of anticipation

Actually, I do not know if I learned anything very significant because I used quite little resources on even thinking about the research task and I only collected the data for my part as we had agreed.—I guess few teachers conduct any systematic research alongside of instruction but small-scale and unofficial studies even in one's own classroom surely help to recognise pupils' needs and emotions ever better.

In the quotation above, the student believes he/she has not learned much yet. However, the student has understood the main point of using research skills in teachers' daily work, as evidenced by his/her argument for small and unofficial research in the individual classroom. Thus, professional agency can be seen to manifest itself in this voice through the student's reflexivity. In other words, this voice is open to learning and eager to understand, thus implying *open professional agency*.

However, professional agency is restricted when a person cannot put into words what he/she has learned. Nevertheless, it is possible that the modest answer '*I have not learned anything*' is a cultural issue, referring to the Finnish speech genre in which it is inappropriate to boast of oneself. At any rate, some students using this voice seem to have recognised a bigger picture—as if learning was coming, but they were not yet there. This is quite understandable for first-year and first-term students.

Using this voice, the students were reflecting the question of what they had learned. Examining the expectations reveals hidden qualities in student teachers' accounts of their learning. Challenges in collecting the research data and, on the other hand, expressions of openness about using research skills align in the same context:

Conducting research during the teacher practice **felt difficult** and **stressful**. It was **difficult** to find a **suitable** lesson for observation, and fetching the equipment from the university was **challenging** because of the schedules. **After all, however**, we **managed** to collect the data, **but** I do **not** find I learned **anything** from it since we have **not** gone through the data **yet**. I have **never** thought that research **would** be **that important** in teachers' work but **now I have changed my opinion**. To become an **even better** teacher, one **has to understand** pupils **more deeply** and, **in that sense**, conducting research is **useful**.

Here, the student often complains about the circumstances by using several expressions of difficulty. Moreover, the student states that he/she has not yet learned anything. After that statement, a pivotal turn happens in the narration, as the student tells about having changed his/her opinion on the role of research in teachers' work—explicitly stating a transformation that has happened in his/her thinking. However, this transformation is not linked to the experience of the research task during the teacher practice; it remains marginally unrecognisable, even to the student himself/herself. The students may have been convinced about the usefulness of research skills but they lack the kind of mastery in using them that would enhance their agency. Hence, a major challenge is how teacher educators can help students to better recognise their own learning and, through this, gain better professional agency.

## 7. Discussion

This study aimed to understand the narrative practices in student teachers' teaching practice report texts in terms of professional agency and in relation to research skills at the intersection of theory and practice. This was an initial attempt to identify the main voices in relation to research skills in teaching practice, and to determine what kind of professional agency these voices imply. The findings of this exploratory study indicate that integrating research skills studies and teaching practice can facilitate student teachers' professional agency. The students gave many positive connotations to research skills in teachers' work, like depicting them as tools or lenses, that imply taking responsibility for their own expertise and independently transforming the received instruction of research skills into their own resources as they become teachers (Edwards, 2017; Juutilainen et al., 2018; Lipponen & Kumpulainen, 2011). These expressions indicated possibilities and opportunities to make choices in given situations, which Hilppö et al. (2016) argue as important indicators of a sense of agency. The students did not only assume the idea of research skills but made the tool their own.

However, at the same time, there were signs of limited professional agency if the students believed the role of research skills in teachers' work to be a burden. In this case, the students saw these skills as just resulting in conducting and publishing research, for which they did not have time or resources. This kind of opposing and resisting nature of agency can be concluded from students' expressions of '*must*' and its synonyms—detailing restrictions that either other people or the student himself/herself has set (Hilppö et al., 2016).

Furthermore, the transformative learning process that happened in the students partly remained unrecognisable to them, which restricted their professional agency.

The integration of theory and practice for student teachers' professional agency, during the process of becoming teachers, was this study's theoretical starting point (cf. Korthagen, 2017; Tynjälä et al., 2003; Tynjälä et al., 2006). The findings indicate two outcomes concerning this integration. At an integrated learning environment's best, student teachers learn research skills in a way that promotes professional agency, seeing research as a tool or lens to improve their performance as well as to support and aid their daily work. Thus, it is indeed possible to sensibly unite theory and practice through research skills in teacher education (cf. also Niemi & Nevgi, 2014) to enhance professional agency. However, at an integrated learning environment's worst, research and teachers' work remain separate from each other in the student teachers' minds. Research may be seen as extra pressure and work that steals the teacher's free time and, what is almost frightening, steals the teacher's attention from the pupils. Thus, the students think the tool they are introduced is only for university research. In this case, research skills are not seen as bridging this gap.

Thus, student teachers' professional agency in terms of research skills can be depicted as dynamics. In this conceptualisation, the voice of enthusiasm and the voice of rejection form extremes. The voice of uncertainty and the voice of anticipation are situated in the middle of these dynamics. However, this is not a dichotomy, as student teachers, like all humans, tend to speak in several, inconsistent voices. Instead, in these dynamics all voices are intertwined with one another as a polyphonic texture that shapes student teachers' actions and future chances.

Integrating theory and practice seems to be such a great challenge that even an integrated learning environment does not automatically support it. Thus, student teachers need support in putting these pieces together in a way that is useful for them. The students' uncertainty must also be supported so that the students can become active agents who trust what they are doing and appropriate the given tools. Therefore, teacher educators and teacher practice supervisors (i.e., training school teachers) should not see a student teachers' uncertain voice as being set against learning research skills. Furthermore, considering that the students in this research had just begun their studies, it is quite understandable that they expressed some uncertainty.

In higher education, teaching of research skills is a foundational, ever-present part of the studies. However, too often it is left separate from the practical profession (cf. Hughes, 2019). The present study's findings question whether, in this learning environment, the integration has been organised appropriately. In a model where research skills studies and teaching practice are organised in separate physical spaces, there is always a risk that students will develop a false dichotomy between the two (Stenberg et al., 2016). This kind of model, in which research skills are taught by researchers and teaching practice is guided by training school teachers, can even support that dichotomy. Thus, the present study highlights the importance of systematically designing the integration of theory and practice in teacher education. Further research is needed to find out whether an even more integrative learning environment will better support student teachers' professional agency. Furthermore, research should also explore the role of teacher educators and training school teachers in supporting student teachers' use of research skills in favour of their professional agency.

Seeing agency as dialectics between person and practice reveals how student teachers interpret and respond to the learning environment (Edwards, 2015). Students can position themselves in self-protection stances or choose to be open to challenging classroom situations from which they could learn. One goal is for them to reposition themselves, which involves seeing the familiar afresh, making new connections and using them to act (Edwards 2017). Using the voice of rejection, students were protecting themselves. They rejected the opportunity to use research skills since they thought that research would bring them extra, unnecessary work. However, when using the voice of enthusiasm the students expressed no problems with their roles and positions, and the agency of becoming a teacher seemed clear to them.

According to Edwards (2017), in teaching practice, student teachers tend to protect their senses of themselves as teachers, which may inhibit their learning. Acting as co-enquirers alongside teachers, the students can have a chance to learn without pressure (Edwards, 2017). The present study provides more empirical support for this idea of a recommendable way of integrating research skills studies into non-research methods studies. However, as the findings illustrate, the roles and purposes of research can be easily confused, and this can impede both research skills studies and teaching practice. Thus, keeping some parts of research skills studies and teaching practice separate might not be a

bad idea either since, as Stenberg et al. (2016) describe, the students must first *learn* formal research skills to be able to *use* them in practice.

Although the data in this study were rich in narration, there are data limitations—especially since text material provides a rather stable view of student teachers' professional agency. Thus, in using text data, it should be remembered that professional agency is constructed situationally (Toom et al., 2015). Therefore, the text data provides more of a flash of situationally positioned insight than a permanent description of student teachers' professional agency (cf. also Hilppö et al., 2016). However, text data is also beneficial, as outer matters, such as an interviewer, cannot influence the students. Another limitation of the data is its reliance on the students' texts, which prevents knowing, for certain, whether the students revealed their true thoughts in the reports they submitted or whether they used false voices—answering the questions based on what they thought the people reading the reports (especially the teacher educators) would want to hear them say. However, a comprehensive percentage of the texts, 96 % of those who were enrolled at teaching practice, increases the trustworthiness of the study. Moreover, the texts were gathered in connection with teaching practice, not in connection with research skills studies, which diminishes the social desirability of the texts in relation to research skills. A saturation point was also easily gained since the texts were quite similar and the same voices were repeating themselves, which also improves the credibility of the interpretations. It is also important to note that there are other skills, such as learning strategies, emotional strategies or metacognitive abilities that are also very important bases for professional agency. This can be seen as a limitation of this study. However, this study was focused on exploring research skills' roles in bridging theory-practice gap and supporting student teachers' professional agency.

More research is needed to follow up the development of the student teachers' professional agency in learning environments integrating theory and practice at different levels. Future studies could explore how the relationship between the found voices in the self is. To investigate the enacted agency, it would be good to choose teachers in a stable and permanent practice and analyse, not only through their expressions, but also through their practical decisions and actions.

Alongside the students' views, the context and practices must be taken into account since navigating between campus-based and school-based studies causes challenges for the students to appropriate the gained skills. Moreover, interviewing students, rather than relying

on reports, could give a wider picture of the narrative practice of professional agency, and, in terms of research skills, links to student teachers' identities in relation to their professional agency could be discovered (Eteläpelto et al., 2010). Narrative nature of student teachers' professional agency needs more research as agency is intertwined with language. In addition, theoretical work on the role of theory and practice in professional agency requires clearer insights since, as the findings of this study indicate, different connotations are attached to these ideas, and, the degree and the quality of professional agency is attached to how student teachers relate themselves towards research skills.

The present study points out the benefit of the narrative practice approach to student teachers' texts in research on teacher education. Usually, teacher educators pay attention to aspects other than the narration in their students' reports. However, thick narratives containing plenty of evidence of expectation provide useful material for understanding how certain practices are constructed and negotiated and for determining what is significant for the students and what is not (cf. Hilppö et al., 2016). As it was explored in the present study, the student teachers' relationship towards research skills is a fine-grained matter. Through narratives the different approaches become in sight, and, thus, the students can be offered better support.



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