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The Role of Previous Workplace Learning in the Development of Adult Teacher Students' Professional Expertise

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Abstract

This research describes and seeks for more understanding of the role of previous workplace learning for adult teacher students and its relationship to the development of their professional expertise. Previous refers here to earlier months or years of work in schools for adult students who are now starting their teacher education studies. This research aims to answer the following questions: In what kinds of work situations and contexts have teacher students learnt? How does this learning manifest in teacher students' working life stories? The research material includes 80 working life stories of adult students who are just starting their teacher training to become Finnish class teachers, physical education teachers or special needs teachers. The results of thematic analysis showed that teachers have learnt individually or collectively and by actively searching for learning situations or by passively arriving at them. New problem-solving situations and working environments facilitated workplace learning. The narrative analysis produced nine typical learning stories. Within the school context, the teacher's formal qualifications and reflective orientation defined their learning opportunities. The postmodern theoretical perspective on expert learning offers a conceptual tool for structuring the learning processes of teacher students in their previous workplaces.

1. Introduction

Workplace learning is an integral part of a teacher's professional growth and development. Recognition of adult teacher students' previous work experience in schools is therefore becoming an important aspect of the development of higher education pedagogics. Teachers learn and develop through experience and by participating in the day-to-day activities of their working communities [1]. Significant learning takes time [2], and teacher learning is influenced by rational factors as well as emotions and personal motivation [3]. Before joining teacher education programmes, adults have, maybe for years, learnt through trial and error, often without any professional support or guidance [2]. There has

been a significant amount of research conducted into the teacher as a learner and the development of his/her professional expertise in teacher education and at work [3], [4], [5], [6], [7]. However, research that focuses on teacher students' previous workplace learning in schools before going to university to begin teacher education studies are rare.

2. Theoretical framework

2.1. Workplace learning and the development of professional expertise

The professional development of a teacher is an individual and communal process of learning and socialisation. The central element of this process is the teacher's work. In this study, we examine teacher students' previous workplace learning in schools from the perspective of professional expertise. The teacher's professional expertise consists of 1) personal knowledge and 2) sociocultural knowledge [8]. This requires individual participation in learning and participation in school and community activities. Paavola, Lipponen and Hakkarainen [9] have divided the field of professional expertise into three metaphors of learning – namely, knowledge acquisition, cultural participation and knowledge creation. Knowledge acquisition refers to individual mental processes [10]. Cultural participation is also described as a form of professional expertise [11]. Professional expertise develops as an interactive, individualised and communal process of knowledge creation [10]. Thus, the professional expertise of teachers can be viewed from these three perspectives.

Workplace learning is typically informal and episodic or occasional in nature, and the resulting knowledge is silent or implicit [12]. The school environment is not, by nature, designed for teacher learning. The specific demands of teaching as well as inbuilt pressures and tensions accidentally trigger the learning and reflective process [2]. The learner must have motivation and the conscious desire to learn: They must display an active orientation towards

learning before an informal and self-directed learning process can take place [13].

The learner's previous life experience determines what and how he/she learns at work. However, the experiential, self-directed and dynamic nature of learning at work is problematic, because acquiring knowledge and partaking in meaning-oriented reflections, both essential elements of learning, do not often occur simultaneously [3]. Systematic and conscious reflection is essential in adult learning, particularly when integrating theory and practice [2], [14]. Hager [15] considers learning at work to be an evolving phenomenon, which, in some contexts, takes place in new ways that cannot be predicted. Context, in this respect, affects and transforms learning into a continuous and creative process. As a result, teacher learning cannot be adequately described by a single theory of expert learning [15].

2.2. Teachers in the Finnish education system

In Finland, teaching is a highly valued profession, and all teacher education is organised at universities. In 2014, only 20 per cent of applicants who participated in the entrance exam for admission into educational programmes at universities were admitted [16]. However, after qualifying as a teacher, the Finnish education system has no official procedures in place to evaluate school teachers' competences.

A new development programme to reform teacher education in Finland has recently been announced. The aim of the programme is to develop teacher training and strengthen teachers' professional skills. Networking and creating a sense of community are key elements to ensure the development and modernisation of the programme [17].

The Finnish nine-year basic education system, otherwise known as comprehensive school, is compulsory for all children aged between seven and sixteen. In grades 1–6, pupils are usually taught by class teachers, whilst instruction in grades 7–9 is mainly provided by specialised subject teachers. Children with slight learning and integration difficulties in grades 1–9 are taught by special needs teachers, who have completed special needs teacher training (300 ECTS credits), or have class teacher qualifications and have studied as a special needs teacher (60 ECTS credits), or have subject teacher qualifications and have studied as a special needs teacher.

The specific qualifications for teachers in Finland depend on the school level, but they all require a master's degree and the teacher's pedagogical studies (60 ECTS credits). These pedagogical studies provide teacher students with diverse qualifications, meaning they can work at various levels in various schools. Partaking in further studies will define on what level and which subjects one can teach. In

subject teacher training, the pedagogical studies are conducted alongside studies concerning the taught subject. Unqualified persons may also work as teachers in Finland. In basic education, about 95 per cent of teachers are qualified, and in special needs education, around 87 per cent of teachers are qualified [18]. However, it is impossible for an unqualified teacher to be appointed as a permanent teacher. Additionally, an unqualified teacher cannot be paid a full salary.

3. Aim of the study

This study is descriptive and narrative in nature. The purpose of the study is to describe and seek for more understanding of the role of previous workplace learning for adult teacher students and its relationship to the development of their professional expertise. The study focuses on particular contextual situations and connections where workplace learning occurs. The aim of the study is also to describe the logics of previous workplace learning in schools as the adult students describe them. The research questions are as follows:

1. In what kinds of work situations and contexts have teacher students learnt?
2. How does this learning manifest in teacher students' working life stories?

We reflect and understand these descriptive results in a theoretical framework of the expertise research.

4. Methods

4.1. Participants and research material

The working life stories were compiled by the participants at the beginning of their teacher education studies. Writing acted as a reflective tool as well as a form of learning for them. The assignment instructions were outlined as follows: *Write a descriptive and evaluative text: 1) Briefly describe your work history as a teacher. 2) From a professional perspective, describe what professionally meaningful things you have learnt from your work experience.*

After submitting their written assignments, the participants were told about the study and asked whether they wanted their writing to be used in the research project. All of them consented to their written assignments being used in the project. The research material included the working life stories of three separate teacher education programmes: 37 class teacher students, 23 physical education teacher students and 20 adult students who were studying to be special needs teachers. The length of the written assignments ranged from half a A4 page to six A4 pages. Although the previous education and work

experience of the participants were quite heterogeneous, they all had an upper secondary degree and some had attended open university courses. Their teaching work experience in schools ranged from four months to 22 years. Sixty-one of the participants already had a bachelor's or master's degree. All of the students who were studying to become special needs teachers (20) and 20 students from other teacher education programmes had some form of teaching qualification. The majority of the participants had previously worked in various teaching positions without formal qualifications.

4.2. Thematic and narrative analysis

The thematic analysis [19] was conducted inductively. The items where the participants described contexts and situations related to learning in teaching were encoded according to each of the three teacher education programmes. During the first phase of the analysis, these were first summarised as sub-themes and then as main themes. During the second phase of the analysis, the written assignments were read as working life stories. In relation to the research of working life stories, the focus is usually on small stories [20]. Dudek [20] calls them 'biographical snippets referring to particular events or periods.' The working life stories were read by the researchers and a single story with internal themes and logics related to teacher learning was the subject of the search. The logics were constructed in the stories as factors that inhibited or promoted professional development or as descriptions of teacher learning. The working life stories were not categorised, as individual texts could involve several parallel logics. Based on this phase of analysis, nine typical work stories in relation to teacher students' previous workplace learning were found. In the third phase of analysis, these stories were placed in a fourfold table, based on theories of professional expertise. We used researcher triangulation throughout the thematic analysis process.

5. Results

5.1. Contexts of workplace learning

In the working life stories, teacher learning was described as happening individually or collectively by actively searching for learning situations or by passively arriving at them.

Individual learning occurs when a teacher reacts to a new situation through trial and error or through unconsciously acquired tacit knowledge. It can also involve goal-oriented training or mentoring. The experience acquired from social learning was related to working alongside an other person or through co-operation.

Table 1. Contextual situations and connections in previous workplace learning

	Passive actor	Active actor
Working individually	<ul style="list-style-type: none"> ▪ encountering new challenges ▪ shouldering responsibility ▪ teaching in a given task ▪ working in different teaching environments 	<ul style="list-style-type: none"> ▪ challenging oneself as a teacher ▪ developing a positive attitude towards teaching ▪ showing deep commitment towards the development of one's own pupils ▪ having an exploratory approach to work (e.g. testing, reflecting, comparing, self-evaluating) ▪ updating professional competence independently ▪ seeking new tasks and challenges
Working collectively	<ul style="list-style-type: none"> ▪ co-operating ▪ holding discussions with pupils, colleagues and parents ▪ imitating ▪ observing ▪ receiving feedback and information 	<ul style="list-style-type: none"> ▪ adopting a goal-oriented approach to co-operation situations <ul style="list-style-type: none"> • assuming expert roles in work communities • participating in multi-professional collaboration • searching for collaborative partners • sharing resources and competences with others ▪ updating professional skills and knowledge <ul style="list-style-type: none"> • participating in work supervision and mentoring • asking for and utilising feedback

Examples of this type of co-operative and collaborative learning were found in the working life stories. Collaborative learning involved the goal-oriented, communal and long-term development of common work and the working community itself. In particular, new and challenging problem-solving situations, tasks and operating environments led to commitment and a search for new ways of operating and learning.

5.2. Typical stories of teachers' workplace learning

The narrative analysis of adult students' working life stories produced nine typical stories. Unlike other typical stories, the first and second stories did not include reflections or meta-level reflective orientations to the teachers' learning processes.

1. Professional survival: Descriptions of individual external survival.
2. Learning as a novice: Descriptions of career choice, future prospects and reflections on one's own personality.
3. Individual active learning: Descriptions of individual professional development.
4. Self-actualisation: Realisation of the individual's strengths and potential in building a professional identity.
5. Identity struggle: Descriptions of social tensions and identity work.
6. Learning determined by the working environment: Descriptions of factors that promoted or inhibited professional development at various stages of career.
7. Active learning in social connections: Learning related to the surrounding social environment and human beings.
8. Hermeneutic learning experience: Descriptions of changes in the teacher's values and worldviews.
9. Learning in a community of professional experts: Descriptions of long-term community-based pedagogical development.

The nine typical stories were placed in a fourfold table based on expertise learning theories [9] and the two metaphors of professional expertise learning: the sociocultural dimension (i.e. expertise as a form of participation in community of practice) and the dimension of knowledge acquisition (i.e. learning as an individual mental process). These two dimensions are integrated into the knowledge creation metaphor, which is presented in the upper-right corner of the table. This learning metaphor requires active participation in the professional culture (vertical axis) and an active approach to learning (horizontal axis).

Based on the research material and theories of professional expertise, the teachers' formal qualifications and reflective approaches to learning have been added to the fourfold table as boundaries of workplace learning in school settings.

In the table, the lower-left corner contains typical stories that do not mention reflective learning and where unqualified teachers had to operate on the margins of the school community. The stories placed in the upper-right corner describe, in turn, reflective and communal learning. These stories structured the learning of qualified teachers. A high level of participation within school culture required a formal teaching qualification from the member of his/her community. Useful expertise from another field or

profession enabled some deviations from this social norm. In relation to the stories placed on the right of the fourfold table, active learning involves reflections of work experience.

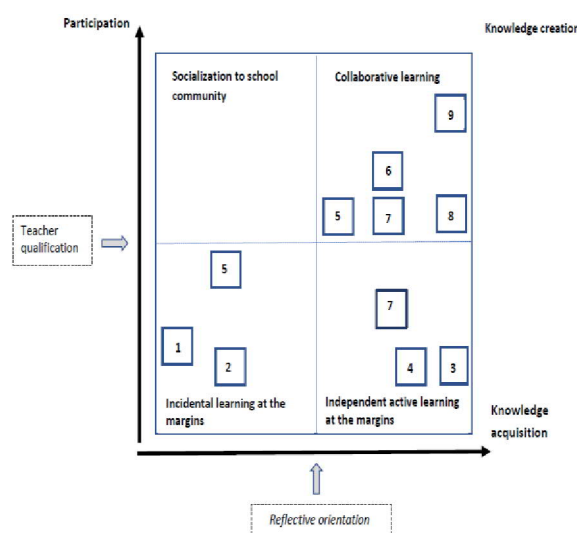


Figure 1. Adult students' working life stories structured within the framework of expertise

Based on our analysis, we propose that without strong participation and formal qualifications, the teachers' learning within the context of school is restricted. This is revealed in the working life stories, which describe themes of survival, struggle and individual learning.

6. Discussion

Teacher learning is determined by both the school context and the learner's individual starting points. The individual's learning orientation (active vs. passive) guides the learning process. School cultures enable active individual learning in different ways. Short-term substitute teachers are familiar with different work communities, but the construction and transmission of sociocultural knowledge can remain superficial. Long-term substitute teachers, as members of a fragmented or problematic school community, inhibit the teacher's professional development. Physical presence also determines participation in the work community. However, being on the margins of the work community enables the individual to make critical observations and learn from them.

In the working life stories, the work of an unqualified substitute teacher is reflected in many ways by the position of said teacher in the working community and his/her experiences of teaching. Work experience is determined by the school's working culture and interaction, particularly with the school principal and one's colleagues, but also with

the parents of the pupils. From our research, it was found that novice teachers often had the most challenging group of pupils to teach and had to cope with this on his/her own. In a number of working life stories, the teacher's professional identity was consequently built on the basis of their personal strengths.

The professional starting points of the adult teacher students were quite varied, but most of them had already completed a bachelor's degree before beginning to work as a teacher. General workplace skills and academic competencies are important for a teacher in relation to the work that they do, and this was revealed in the teacher students' working life stories. For example, an academically unqualified substitute teacher was able to obtain a reputable position within the school community, which gave him/her opportunities for inclusion and participation. This, in turn, promoted his/her professional development. In this case, it is possible to refer to a positive circle of workplace learning or the accumulation of learning.

As researchers, we discussed whether the working life stories had provided enough opportunities for the participants to reflect on the uncertainties, conflicts and development needs associated with professional teacher development. Perhaps an anonymised writing situation might have made it possible to better bring these issues to light. We comprehensively processed the thematic analysis through researcher triangulation and confirmed the reliability of the individual interpretations of the typical stories by discussing the common interpretations.

7. Conclusions

The demand for teacher education programmes intended for adult students is likely to increase, as they offer flexible solutions for career change [21] and alleviate looming labour shortages in certain educational fields [22]. However, teacher education programmes targeted at adult students should also recognise the students' previous workplace learning contexts and practices in terms of work. It is important to provide students with reflective tools to examine their positions as adult learners and the school as a place of learning in relation to professional expertise.

Teacher learning requires schools to strengthen the fundamental features of expert culture, common knowledge practices and social structures. It also requires schools to offer support to new members of the work community in challenging work situations. School principals have a key role to play in this process. The working life stories reveal the multi-dimensional nature of teacher learning (see [15]). The postmodern theoretical perspective offers ways

of theoretically structuring teachers' workplace learning within diverse dimensions.

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