<https://helda.helsinki.fi>

Portraying Reflection : The contents of student reflection on personal practical theories and practicum experience

Maaranen, Katriina

2017-05-16

Maaranen , K & Stenberg , K 2017 , ' Portraying Reflection : The contents of student teachers reflection on personal practical theories and practicum experience Practice , vol. 18 , no. 5 , pp. 699-712 . <https://doi.org/10.1080/14623943.2017.1323729>

<http://hdl.handle.net/10138/231954>

<https://doi.org/10.1080/14623943.2017.1323729>

unspecified

acceptedVersion

Downloaded from Helda, University of Helsinki institutional repository.

This is an electronic reprint of the original article.

This reprint may differ from the original in pagination and typographic detail.

Please cite the original version.

Portraying reflection: The contents of student teachers' reflection on personal practical theories and practicum experience

Corresponding author:

Katriina Maaranen, PhD, University Lecturer

Department of Teacher Education, University of Helsinki, Finland

P.O.Box 9 (Siltavuorenpenger 5 A)

00014 University of Helsinki, Finland

katriina.maaranen@helsinki.fi,

Co-author:

Katariina Stenberg, PhD., Lecturer

Viikki University Teacher Training School, University of Helsinki, Finland

P.O. Box 30 (Kevätkatu 2)

00014 University of Helsinki

katariina.stenberg@helsinki.fi.

The research was carried out at the Department of Teacher Education, University of Helsinki, Finland

Portraying Reflection: The contents of student teachers' reflection on personal practical theories and practicum experience

Abstract

This research focused on personal practical theories of Finnish student teachers, on how they argued for them and what they contained, and the data was analysed using Korthagen's "onion" model of reflection (e.g. 2004). The framework of this research consists of reflection and personal practical theories. Personal practical theories are viewed as important for a teacher's identity: they guide the teacher's work, action and reactions before, during and after a teaching event. Reflecting on teaching, then again, has been one of the most significant issues and focus of numerous studies for several decades. This is a case study of six elementary school student teachers, who had constructed their PPTs before the practicum. We examined their reflections using the onion model of reflection (e.g. Korthagen, 2004; Korthagen & Vasalos, 2005; Hoekstra & Korthagen, 2011), according to which a person reflects on different levels. The data was collected by interviewing the student teachers after their final practicum. The results show that most of their reflection focused on Environment and Behaviour, so it was located mostly in the outer layers of the onion model. The categorization of the reflection also showed that Competence was the smallest category.

Keywords: Personal practical theories, reflection, teacher education, teaching practicum

Introduction

Finnish teacher education includes a relatively small amount of field experience, approximately 20 (ECT) study points of their degree containing 300 (ECT) study points. Contrary to international trends (Gelfuso & Dennis, 2014; Zeichner, 2010), there are no intentions of increasing it. However, the quality of the experience is said to be more important than quantity, as well as striving to bridge the ever-existing gap between theory and practice. The Finnish teachers study for five years and graduate with a Master's degree. This study focuses on elementary school teacher students' reflection on their personal practical theories and the relation of these theories to the field experience, in this case the final practicum, at the end of their MA studies.

Personal practical theories are considered to be important for a teacher's identity. According to Clandinin (1985) the theories are neither purely theoretical, nor practical, but instead they are composed of both kinds of knowledge. Furthermore, they are blended by the personal background and characteristics of the teacher, and expressed by the teacher in particular situations. They guide the teacher's work, action and reactions before, during and after a teaching event, and can be articulable (e.g. Levin & He, 2008; He & Levin, 2008), especially if they are related to an actual practice of teaching (Shulman, 1986; Meijer, Verloop & Beijaard, 1999). Reflecting on teaching has been one of the most significant issues and focus of numerous studies for several decades, since the seminal work by Schön (1983), followed for example by Zeichner and Liston (1987) in the teacher education context. It is considered to be one of the most important issues in teacher education, and being a reflective teacher is the aim of most teacher education programmes throughout the world (see e.g. Beauchamp, 2015). As Beauchamp (2015) states, there is no teacher educator who would deny the importance of reflection in teacher education. Hsieh (2015) emphasises "the importance of orientation in constructing an early professional identity" (p. 188). Furthermore, she argues that, based on different studies, understanding these orientations can be a key factor in sustaining teacher commitment and retention, as well as understanding the reasons for stability and instability of teacher identity (Day, Elliot & Kington, 2005; Day, Kington, Stobart & Sammons, 2006).

This study connects personal practical theories (PPTs) and reflection. In their PPTs the student teachers have expressed their beliefs about "good" teaching, and through reflection they are able to analyse their thoughts and actions, and thus view the PPTs in relation to teaching practice experience. Therefore we focused on Finnish student teachers' PPTs, on how they argued for them and what they contained, analysed by using Korthagen's onion model of reflection (e.g. 2004). The research

question was formulated as follows: *What is the nature of the reflection that emerges when student teachers reflect on their PPTs, and on the realization of their PPTs in the final practicum?*

Theoretical background

Personal practical theories

The concept of practical knowledge has been defined many times by different theorists over a long period of time. One of the first writers in the field was Elbaz, who defined it as a teacher's complex set of understandings, which are actively used to shape and direct the work of teaching (Elbaz 1983, p. 3). Later Connelly and Clandinin (1988) defined personal practical knowledge as being "[i]n the teacher's past experience, in the teacher's present mind and body, and in the future plans and actions. Personal practical knowledge is found in the teacher's practice." (in Connelly, Clandinin & He, 1997, p. 666). For Carter (1990) personal practical knowledge concerns classroom situations and practical dilemmas in teaching. Practical theory has later also been used synonymously with practical knowledge (Buitink 2009), which Johnston (1994) defines as including values, attitudes, and beliefs as well as the emotional and moral elements of teaching. The term practical knowledge is often used reciprocally with several other terms (see e.g. Levin & He 2008; Verloop, Van Driel, & Meijer, 2001). Many researchers emphasise the experiential origin of practical theory (see Gholami & Husu, 2010; Zanting, Verloop, & Vermunt, 2003), and also emphasise that this kind of knowledge is personal, related to context and content, often tacit, and based on (reflection on) experience (Meijer, Verloop, & Beijaard, 1999). Thus, practical theory is not the opposite of theoretical knowledge, but instead teachers' practical theories encompass a great deal of theoretical knowledge, which is adapted to relevant teaching situations (Pitkäniemi, 2010). Teachers use practical theories as a framework to plan, interact, and reflect on teaching (Cornett, 1990; He & Levin, 2008; Marland & Osborne, 1990), and they can also be considered as pedagogical beliefs (He & Levin, 2008; Levin & He, 2008), which strongly affect teaching (see also Chant, 2002). In this study, we define personal practical theories as pedagogical beliefs that guide teachers' classroom actions.

Reflection

In contemporary educational studies reflection is seen as a key element in a teacher's professional development. For instance, Beauchamp (2015) states that the issue of identity in teacher development is central to what reflection is intended to do. To Griffiths & Tann (1992) reflection on the personal and professional concerns of the individual student teacher is central, along with the reflection on his or her own practice. Korthagen and Vasalos (2005, p. 48) state that there is a danger that one's professional development may stagnate if the teacher does not get accustomed to systematic reflection, but seeks a rapid solution to a practical problem. Furthermore, they emphasize that structured reflection is important in promoting sound professional behaviour (Korthagen & Vasalos, 2005). According to Korthagen, Kessels, Koster, Lagerwerf and Wubbels (2001) structured reflection supports the development of a growth competence, by which they mean the ability to continue to develop professionally on the basis of internally directed learning. Numerous ways of supporting reflection in a more structured way have been developed, for example making use of videos, journals, portfolios, amongst other things (Gelfuso & Dennis, 2014). Through supportive tools, student teachers are able to perceive and assess their experiences in order to understand the beliefs and assumptions underlying the experiences (cf. Körkkö, Kyrö-Ämmälä & Turunen, 2016).

The structured tool for reflection used in this study was the *onion model* of reflection (e.g. Korthagen 2004; Korthagen & Vasalos, 2005; Hoekstra & Korthagen, 2011). The levels in this model move from the outer world towards the person's inner world, the first level being Environment; the second level Behaviour; the third level Competencies; the fourth level Beliefs; the fifth level Identity; and the last level Mission. The *environment* means the class, the students, the school, and *behaviour* the teacher's actual behaviour in the school context. *Competencies* represent a potential for behaviour, whereas *beliefs* are defined very closely as meaning the same thing as personal practical knowledge or theory. *Identity* refers to how a person sees his or her (professional) identity, and *mission* is concerned with to what end the teacher wants to do his/her work or what he/she sees as his/her personal calling the world (Korthagen, 2004). Reflection in this study has been used in two different ways. For the purpose of the research we use reflection as a tool of *analysis*, but for the student teachers participating in this study, reflection is a way to make their PPTs *visible*. For the analysis purposes we wanted to select a model of reflection that would fit well for structuring the focus of reflection, and therefore the *onion model* was chosen. For student teachers, the interview discussion was a reflective, person-to-person conversation (Gelfuso & Dennis, 2014) the purpose of which was to concretize the student teachers' personal practical theories and their realization in the practicum.

Context of the study

Research-based teacher education

This research was conducted in the Department of Teacher Education at the University of Helsinki, Finland. Finnish teacher education is research based (Westbury, Hansen, Kansanen & Björkvist, 2005), and all teachers graduate with a Master's degree. The studies consist of general education studies, studies of pedagogical content knowledge, and practical training as well as research methods and research projects (BA and MA theses). Although the education has been appreciated internationally (see e.g. Tirri 2014), the students also criticise it for its lack of theory-practice integration.

The aim of the final practicum is to support student teachers' understanding of a teacher's everyday work, along with promoting professional development by reflection on the relationship between theoretical and practical knowledge. It lasts for five weeks, is worth eight study points, and is usually conducted during the 4th or the 5th year. The student teachers attend this practicum in pairs, and they are responsible for teaching all the subjects that the 'real' teacher is responsible for. The student teachers are also supervised by two people in this practicum: their mentor, who is the 'real' teacher of the class, as well as a supervisor from the university faculty.

Research subjects and data collection

This is a case study of six elementary school student teachers. The data was collected by interviewing the student teachers after their final practicum. The first author of this article was the student teachers' supervisor in their final practicum during the academic year 2014-2015. The second author had no contact with the participants, although she too works as a teacher educator. The student teachers had constructed their personal practical theories (PPTs) before the practicum experience, generally a year earlier, as a course assignment. The student teachers were asked to externalise explicitly the practical theories that guided their teaching and the schoolwork, the title of the task being "What is important to you in teaching and school work?" They wrote down four to ten beliefs in statement form. The supervision during the practicum did not touch upon the PPTs. The interview began by going through the PPTs one by one, with the student teacher explaining why she had written those particular PPTs and why they were important to her. The interview then moved on to discuss how these PPTs were realized in the teaching practicum (which ones, why, in what kind of situations and how?). The average length of the theme interviews, which were recorded and transcribed, was 41 minutes. The

interviewer let the student teacher talk freely and did not ask additional questions unless clarification was needed.

Data analysis

The transcribed interview data was analysed deductively (e.g. Patton 2002) using theory-driven content analysis (Elo & Kyngäs 2008; also Dey 1993), which can also be viewed as close to theoretical thematic analysis (Braun & Clarke, 2006). The answers to the interview questions were analysed as unified data, i.e. thematic analysis, so the reflection on the PPTs and reflection on their realization were treated as a whole. We asked the student teachers to make their PPTs explicit and to theorize them from their practice. Referring to Griffiths & Tann (1992), PPTs need to be revealed at different levels of reflection so that they can then be, for instance, confirmed or reconstructed. The theory that guided the analysis was then the above-mentioned onion model of reflection of Korthagen (e.g. 2004). In our research, the first author conducted the initial analysis, whereas the second author checked the analysis independently and made relevant suggestions. Based on discussions between the authors, the onion model of reflection was modified, so that the layer entitled “Beliefs” was removed, leaving five categories, which were then used in the theory-driven analysis. This decision was made because of the definition of personal practical theories: the authors came to the conclusion that all of the PPTs are in fact *beliefs*, per se. We used holistic coding, so the categorized units (N=158) were mostly rather long (Saldaña, 2009). The categories overlapped somewhat, so that some quotes were analysed as belonging to one, two, or even three categories, which can be called *simultaneous coding* (Saldaña, 2009). The degree of agreement between the researchers was 94 %. In the following, the individual case studies of the student teachers’ reflections are presented first, and after that a cross-case analysis (Yin, 2009) of a portrait of reflection as an entity.

Results

Individual reflection

The content of the student teachers’ reflection was analysed individually. In Figure 1 we present the division of reflection categories amongst the participants and further specific aspects of each individual student teacher.

Figure 1. The content of individual reflection [near here]

Amelia

Amelia practiced in a 6th grade classroom, and her PPTs were:

1. Every student is a unique personality and no person should be treated as an object for gaining something, but instead as an aim *per se*.
2. The right way to treat a person is with love, which is realized in an interactive relationship.
3. Persons should not be compared with each other.
4. A person is responsible for him/herself and free to make choices.
5. A group has an eternal effect on a person.

Most of Amelia's reflection focused on Environment, but she also had a strong sense of Identity and Mission. Amelia has a strong Christian worldview in her background, and it is her view that every person should be loved. In the following excerpt Amelia describes her thoughts, which were categorized as Identity/Mission. It shows clearly her belief in the significance of love and the pedagogical relationship that the teacher needs to construct with all children.

--- I have this precondition or assumption that love is important in education in my opinion, so that it somehow is raised from a basic intuition, that if a person does not learn to love, then she/he does not learn anything else, or if she/he learns something, it does not have any significance ---

According to Amelia, no one should be compared with another. She had experienced some moments in which she had encountered a difficult situation, but she was still able to love the student. Amelia mentioned nothing that could have been categorized as referring to Competence.

Bettina

Bettina's practicum took place in a 1st grade classroom. Her PPTs were:

1. The teacher must intervene with a student's rule-breaking, even if it means extra work and may lead to problems.
2. The teachers must intervene in bullying and follow up the situation afterwards.
3. All students must be protected and encouraged at school.

4. The teacher must keep promises, for good or bad.
5. The teacher must represent safe adulthood to the students.
6. Everyone must feel safe at school.
7. The teacher can demand that students obey rules and keep their promises.

In Bettina's interview, the reflection categories of Environment, Behaviour and Identity were the most frequent. Bettina mentioned her background values as being respect, equality, commitment, trustworthiness, and safety. She also felt that she has to be the adult, the authority, and a person who the students can trust, and who keeps her promises, instead of being a friend or a peer.

--- there was one boy that had moved from Asia a year ago and went to preschool in Finland, but did not speak Finnish well. He did not have classes in Finnish as a second language, only Finnish [as a mother tongue], so he did not study his mother tongue actually at all. Then he had this cleft lip, which in my opinion made it more difficult to speak, so at times it was really difficult to understand what he was saying. He had his ways of getting attention, and we discussed [with the mentor teacher] that he would have benefited from an early intervention programme, so he would have had a bit more time to adjust [to school]. He was really lively, and didn't quite behave in the way that is expected here in Finland. It is different from what his home country is, so perhaps it was a bit [for me] finding proper ways to support him or get him enthusiastic about something ---

In this excerpt Bettina is describing what she encountered in the practicum. She is talking about an individual child, his challenges, and also her own thoughts and reactions about how to support this child. This excerpt was categorized into Environment/Behaviour categories.

Caroline

Caroline practiced in a 2nd grade and her PPTs were:

1. Both respect and trust must exist between a teacher and the students.
2. The teacher must be honest and fair.
3. The teacher must act in a consistent way.
4. The teacher is an educator (the original Finnish word refers to upbringing and *bildung*).
5. The teacher must be empathetic but control his/her own feelings.

Caroline's reflection profile is very strongly concerned with Environment. She did also reflect on Identity, but the reflection lacked thoughts that would have indicated Mission. Caroline states that

you have to be honest in your own set of values and she believes that if there is a lack of respect and trust between the students and their teacher, it is difficult to communicate.

--- there should be a certain logicity and continuity so that if certain things have always been done in a certain way, it would be good to do so in the future as well, because, if you know people whose actions are not logical, especially if they are teachers, it is really scary, because you can never know what kind of reaction you are going to get from that teacher--- and in general it is helpful for the children's everyday life in school if it is logical, and you have certain routines, and sometimes you can bend and be flexible in them, but for example, if you say *no*, it is always *no*. It is never going to become *yes*.

This quotation illustrates reflection that was categorized as Environment. Caroline discusses the general rules that in her opinion are important for school life, and the feeling of safety that children have when they know what is going to happen and the teacher acts in a stable way.

Danielle

Danielle's practicum classroom was a 6th grade and her PPTs were:

1. Good classroom climate enhances learning.
2. Learning demands practice and resilience.
3. Feedback must be constructive.
4. The teacher must act in a consistent and logical way.
5. Teaching must be equal for all.
6. The starting point for education must be an individual.

Danielle's reflection profile is composed strongly of Environment and Behaviour. In her interview we were unable to find any thoughts that could be categorized as Competence. She emphasized treating everyone equally, enhancing group spirit, and the importance of practice in the students' learning experience. She felt a personal need to improve in order to become a clear, consistent and logical teacher, which this following quote, categorized as Behaviour/Environment, clearly illustrates.

--- I asked for written feedback from the kids during the last lesson [I had] and in quite many of them it was mentioned that I had messed up, and gave directions in an unclear way, and these kinds of things. But I am not too worried about that, I believe that it will get better over the years, but at this moment I

cannot say that I would have succeeded very well in this practicum, or in any other practicum. So there is a clear development need.

Emily

Emily conducted her practicum in a 1st grade classroom, and her PPTs were:

1. Students must be treated equally in all situations.
2. Students and their opinions are listened to and respected.
3. The teacher's task is to create a safe, comfortable and encouraging atmosphere (climate).
4. Students' individual needs must be taken into consideration as well as possible.
5. The teacher must take care of the classroom climate (disruptions and discipline).
6. Different methods and learning environments must be made as varied as possible by also integrating different subjects.
7. There must be different stimuli in the classroom for activating and motivating students.
8. The teacher must enhance his/her own professional development continuously.

For Emily, the largest reflection category was clearly Environment. She reflected very much on what she had encountered in the teaching practicum, for instance, encountering difficult situations and tolerating noise in the classroom. She emphasized the importance of equality as well as a comfortable and encouraging atmosphere in the classroom.

--- maybe a few times it slipped [from me] so that the classroom climate was not so good for a longer period of time --- I maybe learnt that you should be more strict with that and intervene right away when there is some kind of disturbance, so in other words, stop it right there firmly, so that it doesn't get out of hand and get worse----

This excerpt was categorized as Environment, in which Emily describes classroom climate difficulties she encountered and what she learnt from them.

Faye

Faye practiced in a 6th grade classroom and her PPTs were:

1. The teacher treats students equally and with justice.
2. The teacher listens to the students and their experiences.
3. The students' different needs are taken into account and varied teaching methods and differentiation are used, and there is space for students' own creativity.
4. It is of utmost important that everyone respects each other. The teacher respects students, encourages them, and if there is a situation where someone is treated badly it will be intervened in thoroughly.
5. Topics to be taught need to be connected with the students' own experiences.
6. Teaching moves on along with the aims set, which presupposes planning.

Many of Faye's personal practical theories relate to ways of treating people, because this is important to her, and in Faye's reflection profile Identity emerged the most. Faye wants to pass on her belief in justice as a value, and she also wants to act accordingly. Equality is also important to her.

---Well, listening and being really present when meeting people in my opinion are the starting points from where I want to begin to do this work.

This quote, which was categorized as Identity, illustrates Faye's sense of self, the professional she wants to be, and the way she wants to act among her students.

Cross-case reflection

The cross-case analysis reveals how the focus of reflection was distributed amongst the categories moving from the inner core of the Onion to the outer levels of it.

Mission: What inspires me? (What greater entity do I feel connected with?)

The very inner core of the onion is Mission, which was found in 10% of the students' quotes. One of the student teachers had a strong sense of Mission in her reflection, whereas the others had much less, and from one student teacher we were unable to find Mission at all. Many of the quotes in the Mission/Identity categories dealt with values such as equality, respect, commitment, trustworthiness, and safety, but some were more practically oriented, such as emphasizing experiential learning. Mission was in many cases connected with Identity, and it was sometimes difficult to decide to which category some quotes should belong. In such cases, they were categorized as belonging to both, as this following direct quote illustrates.

This here is a profound view of humanity, which comes from my world view, which is Christian, and is based on the idea that everyone is a portrait of God and also kind of like that every human reflects something of God that no one else can, and that brings up the thought of being unique and one-off. Of course it is also a biological fact that everyone has a different genetic heritage and there aren't two alike. But then it is connected ... my world view also brings up the fact that a human being must be loved, and the opposite of love is abuse and objectifying the other, so this is my understanding of love. (Amelia, Mission/Identity)

In this quotation Amelia describes her Christian worldview and its effect on her as a teacher. She believes that a teacher should love each and every child in the classroom and try to find the good in everyone.

Identity: Who am I (in my work)?

Identity was found in 23% of the quotes. As mentioned above, Identity often overlapped with Mission. However, some student teachers had a strong sense of their own view of teaching or learning, referring to how the work should be organized, or how they, as teachers, should behave or act, for instance, being empathetic and honest. The following direct quote shows the realization that Faye has made, namely that even if she does not like all her students equally, she has to treat them the same way.

Then there is that equality, which is also connected to that, so even if, as a person, I might like one student, and another, kind of ... there just is not that kind of chemistry, like having a similar sense of humour or suchlike, and then of course those kinds of [kids] who try to get your attention *so much* by their behaviour.... so, kind of, those students who for one reason or another get the attention automatically, get more time. The equality is connected to the use of time, so that also those students, who do not get my attention automatically, as a teacher, I have to **give them** the attention, so it would be equal. So. (Faye, Identity)

Faye realizes that there are particular children who demand attention and while the teacher pays them attention, she/he might be doing an injustice to others by not paying attention to them. Still, all children should get the teachers attention, even if they do not show the need for it explicitly.

Competence: What am I competent at?

Competence as a reflection category was found in only six per cent of the student teachers' quotes, and thus it was the smallest category in this data. Three student teachers' reflections lacked it altogether. In those interviews where we were able to find Competence, the quotes dealt with the successes they had achieved during their teaching practicum.

In my opinion I have, as a teacher, acted in such a way that I have treated [the students] equally, so that I have not picked on certain students, or have not paid attention to some other one at all. (Faye, Competence/Behavior)

Faye here describes her way of acting in the reality of the practicum. She valued equality and considered that she as a teacher should pay attention equally to all children. This direct quote shows that she herself has paid particular attention to this PPT and considers that she has succeeded in it.

Behaviour: What do I do?

One's own Behaviour lies in the outer levels of the onion and that was the second largest category of reflection in this data, with 27% of the categorized quotes. The categories Behaviour and Environment overlapped the most, so that many quotes were placed in both categories. Most quotes dealt with what the student teachers had encountered in their teaching practicum, and then how they had dealt with it. These quotes were very practical, such as descriptions of providing feedback, giving concrete examples, or making the students practice a lot.

Well, yes, at least in those texts (mother tongue), I didn't even give any grade for them, although I did correct the texts, and I always tried to give a nice, positive comment to each text, and then also something to improve on, and in the end, when we were ending the practicum, I also gave positive feedback [to the students]. (Danielle, Behavior)

In this quotation Danielle was talking about evaluation of the students. She considered it important to provide feedback or advice on development to the students, even if it was only a small remark on their paper, and even if the paper itself was not graded.

Environment: What do I encounter/What am I dealing with?

According to Korthagen's onion model, the outer level is Environment, which proved to be the largest category of reflection in these student teachers' thoughts (34%). Although it overlapped with Behaviour considerably, it also appeared independently. The student teachers described the school or the classroom environments, cases or issues they had confronted, views on educational policy or suchlike. The following direct quote shows the dilemma Caroline encountered when reflecting on equality:

In some lessons we did really fun stuff, and like, everyone should have the same amount of time, for example in station work, so that everyone could work on the Smart [-board] as much. But then there are students who should have more time for that, so that I could observe their learning. So it was a bit difficult... (Caroline, Environment]

In this example Caroline is describing the dilemma of equality that is restricted by the situation of classroom life. She wants to provide every child with equal time on fun tasks, in this case the Smartboard. However, as there are children with different needs, some should have more time than others on the Smartboard in order to finish the task, and for the teacher to observe the work enough. However, it would cause inequality among the children if she let some students work longer than others.

Discussion and conclusions

The purpose of this case study was to examine the content of six student teachers' reflections, and to assess how their personal practical theories were connected to their teaching practicum. It is our belief that structured reflection on the practicum deepens the experience and adds quality to it, as well as connecting the theoretical concepts of the students' PPT with practice. We rely on Griffiths and Tann (1992, 71), who state:

- - - we should value practitioners' personal theories and encourage them to make explicit their tacit theory to help them theorise from their practice, at a number of different levels of reflection. - - - Personal theories need to be revealed (at different levels) so that they can be scrutinised, challenged, compared to public theories, and then confirmed or reconstructed. 'Personal' and 'public' theories need to be viewed as living, intertwining tendrils of knowledge which grow from and feed into practice.

This study showed that although most of the reflection based on the Onion model (e.g. Korthagen, 2004) located on the outer levels, reflection concerning Identity and Mission did also appear. Our earlier studies have shown very idealistic views of teaching through students' PPTs (Authors 1, 2016; Authors 2, 2014). This present study connected the reflection of PPTs directly to the practical experience. The results clearly show that the students' reflection is not only idealistic anymore, but focuses clearly on more concrete factors, such as environment and behaviour. This change from idealistic to more practical can be viewed as significant. We still think that it is important to be idealistic (cf. Authors 1, 2016), but future teachers also need to recognise the reality of the daily work. The categorization showed that Competence was the smallest category. This seems logical, since the participants were student teachers and therefore do not yet feel necessarily very competent in their teaching. However, we should also be rather concerned about this, since the participants are about to enter the teaching profession. Whatever the reason for this might be it should to be taken seriously in the teacher education programme.

Harrison and Lee's (2011, p. 212) research showed that "the 'person' in the student teacher and their use of feelings and emotions are central to the process of unlocking reflective practice and developing deeper critical reflection on practice." This way of thinking implies that the person and personality of the teacher are the key factors in the depth the reflection achieves. However, we believe we should not leave it at that. We should try to find ways to promote each and every (student) teacher's deep and critical reflection. As Hsieh (2015) suggests, teacher educators must work to promote critical reflection and collaboration, by providing conceptual frameworks and clear pedagogical strategies and by exposing candidates to diverse classroom situations.

Perhaps one of the greatest difficulties, and a limitation of this study, is the challenge of categorizing another person's reflection. The decision to utilize simultaneous coding was made in order not to over restrict the categorization of the reflection. The categorization would have been too narrow if we had used only one category for each holistic code. By explicitly stating it, we hope to increase the trustworthiness of the study. This study is, and must be understood of as a case study of six student teachers, and therefore any generalization of the results must be taken very cautiously. The student teachers of this study participated in the study voluntarily, the data was handled with care, and the analysis conducted as ethically as possible. The two researchers cross-checked the analysis, which also increases its validity.

Klein (2008) thinks that teacher education should acknowledge the inner life of teachers, by which she means hopes, beliefs, emotions, feelings and values. We believe that this is perhaps the most

important task of teacher education. Furthermore, to develop this a little, we would modify Klein's (2008) argument in the following way: Teacher education should not only acknowledge, but *promote* the inner life of teachers. Only by encouraging our student teachers to reflect on their inner life, making it visible and oral, are we able to help them to reveal their beliefs and values. However, we cannot stop there: we must help the student teachers to connect these beliefs and values to the theory and practice of teaching.

References

Authors 1 (2016)

Authors 2 (2014)

Beauchamp, C. (2015). Reflection in teacher education: issues emerging from a review of current literature. *Reflective Practice*, 16, 123-141. DOI:10.1080/14623943.2014.982525

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3, 77-101.

Buitink, J. (2009). What and how do student teachers learn during school-based teacher education. *Teaching and Teacher Education*, 25, 118-127. DOI:10.1016/j.tate.2008.07.009

Carter, K. (1990). Teachers' knowledge and learning to teach. This is a chapter. In W.R Houston (Ed.), *Handbook of research on teacher education* (pp. 291-310). New York: Macmillan.

Chant, R.H. (2002). The Impact of Personal Theorizing on Beginning Teaching: Experiences of Three Social Studies Teachers. *Theory and Research in Social Education*, 30, 516-540. DOI:10.1080/00933104.2002.10473209

Clandinin, D.J. (1985). Personal Practical Knowledge: A Study of Teachers' Classroom Images. *Curriculum Inquiry*, 15, 361-385.

Connelly, F.M. & Clandinin, D.J. (1988). *Teachers as curriculum planners: Narratives of experience*. New York, NY: Teachers' College Press.

- Connelly, F.M. Clandinin, D.J. & He, M.F. (1997). Teachers' personal practical knowledge on the professional knowledge landscape. *Teaching and Teacher Education*, 13, 665-674. DOI:10.1016/S0742-051X(97)00014-0
- Cornett, J.W. (1990). Teacher *Thinking* about Curriculum and Instruction: A Case Study of a Secondary Social Studies Teacher. *Theory & Research in Social Education*, 18, 248-273.
- Day, C., Elliot, B., & Kington, A. (2005). Reform, standards and teacher identity: Challenges of sustaining commitment. *Teaching and Teacher Education*, 21, 563-577. DOI:10.1016/j.tate.2005.03001
- Day, C., Kington, A., Stobart, G., & Sammons, P. (2006). The personal and professional selves of teachers: Stable and unstable identities. *British Educational Research Journal*, 32, 601-616. DOI: 10.1080/01411920600775316.
- Dey, I. (1993). *Qualitative Data Analysis*. London: Routledge.
- Elo, s. & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing* 62, 107-115. DOI: 10.1111/j.1365-2648.2007.04569.x
- Elbaz, F. (1983). *Teacher Thinking. A Study of Practical Knowledge*. London: Groom Helm.
- Gelfuso, A. & Dennis, D. (2014). Getting reflection off the page: The challenges of developing support structures for pre-service teacher reflection. *Teaching and Teacher Education*, 38, 1-11. DOI:10.1016/j.tate.2013.10.012
- Gholami, K., & Husu, J. (2010). How Do Teachers Reason about Their Practice? Representing the Epistemic Nature of Teachers' Practical Knowledge. *Teaching and Teacher Education* 26, 1520-1529. DOI:10.1016/j.tate.2010.06.001
- Griffits, M. & Tann, S. (1992). Using Reflective Practice to Link Personal and Public Theories, *Journal of Education for Teaching*, 18, 69-84.
- Harrison, J.K., & Lee, R. (2011). Exploring the use of critical incident analysis and the professional learning conversation in an initial teacher education programme. *Journal of Education for Teaching* 37, 199–217 DOI:10.1080/02607476.2011.558285

- He, Y., & Levin, B. B. (2008). Match or Mismatch: How Congruent Are the Beliefs of Teacher Candidate, Teacher Educators, and Cooperating Teachers? *Teacher Education Quarterly*, 35, 37–55.
- Hoekstra, A. & Korthagen F. (2011). Teacher Learning in a Context of Educational Change: Informal Learning Versus Systematically Supported. *Journal of Teacher Education*, 62, 76-92. DOI:10.1177/0022487110382917
- Hsieh, B. (2015). The importance of orientation: implications of professional identity on classroom practice and for professional learning. *Teachers and Teaching: Theory and Practice*, 21, 178-190. DOI:10.1080/13540602.2014.928133
- Johnston, S. (1994). Conversations with student teachers – enhancing the dialogue of learning to teach. *Teaching and Teacher Education*, 10, 71-82.
- Klein, S. (2008). Holistic reflection in teacher education: Issues and strategies. *Reflective Practice*, 9, 111-121. DOI:10.1080/14623940802005384
- Korthagen, F.A.J. (2004). In search of the essence of a good teacher: Towards a more holistic approach in teacher education. *Teaching and Teacher Education*, 20, 77-97. DOI:10.1016/j.tate.2003.10.002
- Korthagen, F.A.J., Kessels, J., Koster, B., Lagerwerf, B. & Wubbels, T. (2001). *Linking practice and theory: the pedagogy of realistic teacher education*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Korthagen, F. A. J., & Vasalos, A. (2005). Levels in reflection: Core reflection as a means to enhance professional development. *Teachers and Teaching: Theory and Practice*, 11, 47-71. DOI:10.1080/1354060042000337093
- Körkkö, M., Kyrö-Ämmälä, O. & Turunen, T. (2016). Professional development through reflection in teacher education. *Teaching and Teacher Education*, 55, 198-206. DOI:10.1016/j.tate.2016.01.014
- Levin, B., & He, Y. (2008). Investigating the Content and Sources of Teacher Candidates' Personal Practical Theories (PPTs). *Journal of Teacher Education*, 59, 55–68. DOI:10.1177/0022487107310749

- Marland, P., and B. Osborne. (1990). Classroom Theory, Thinking, and Action. *Teaching and Teacher Education*, 6, 93–109.
- Meijer, P., Verloop, N., & Beijaard, D. (1999). Exploring language teachers' practical knowledge about teaching reading comprehension. *Teaching and Teacher Education*, 15, 59-84. DOI:10.1016/S0742-051X(98)00045-6
- Patton, M.Q. (2002). *Qualitative Research & Evaluation Methods*. 3rd edition. Thousand Oaks, CA: Sage.
- Pitkäniemi, H. (2010). How the Teacher's Practical Theory Moves to Teaching Practice A Literature Review and Conclusions. *Education Inquiry* 1,157-175.
- Saldaña, J. (2009). *The Coding Manual for Qualitative Researchers*. Thousand Oaks, CA: Sage.
- Schön, D. (1983). *The reflective practitioner*. New York, NY: Basic Books.
- Shulman, L.S. (1986). Those Who Understand: Knowledge Growth in Teaching. *Educational Researcher*, 15, 4-14.
- Tirri, K. (2014). The last 40 years in Finnish teacher education. *Journal of Education for Teaching*, 40, 600–609. DOI:10.1080/02607476.2014.956545
- Verloop, N., Van Driel, J., & Meijer, P. (2001). Teacher Knowledge and the Knowledge Base of Teaching. *International Journal of Educational Research*, 35, 441–461. DOI: 10.1016/S0883-0355(02)00003-4
- Westbury, I., Hansen, S.-E., Kansanen, P. and Björkvist, O. (2005). Teacher Education for Research-based Practice in Expanded Roles: Finland's Experience. *Scandinavian Journal of Educational Research*, 49, 475–485. DOI:10.1080/00313830500267937
- Yin, R.K. (2009). *Case study research: Design and methods* (Vol. 5). Thousand Oaks, CA: Sage.
- Zanting, A., Verloop, N., & Vermunt, J. D. (2003). How do Student Teachers Elicit their Mentor Teachers' Practical Knowledge? *Teachers and Teaching: theory and practice*, 9, 197–211. DOI:10.1080/13540600309383

- Zeichner, K.M. (2010). Rethinking the Connections Between Campus Courses and Field Experiences in College- and University-Based Teacher Education. *Journal of Teacher Education*, 61, 89-99. DOI:10.1177/0022487109347671
- Zeichner, K.M., & Liston, D.P. (1987). Teaching student teachers to reflect. *Harvard Educational Review*, 56, 23-48.

Figure 1. The content of individual reflection