Examining the relations between reflection and student teachers' practical knowledge

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Introduction

- Student teachers should adopt **reflective skills** and **action-oriented knowledge** for their teaching profession during teacher education.

- The case ‘everywhere’: **theory-practice gap** – i.e. how to construct multiple connections between
  - observations and generalizations
  - teaching and student/teacher learning

- How do student teachers move from their simplistic explanations towards **more sophisticated explanations** of their actions
  - Teacher learning (in classrooms and in teacher education)
  - Teacher reflection (of action oriented knowledge of their practice)
  - Teacher agency (i.e. something has to be done in order to make an effect)
Aims and research questions

• To promote student teachers’ learning, reflection and action-oriented knowledge during teaching practice in teacher education
• To test the procedure of guided reflection with student teachers in five different teacher education contexts

• To explore the content and characteristics of student teachers’ construction of action-oriented knowledge
  1. What kinds of action-oriented knowledge do the student teachers express related to their classroom practice?
  2. What kinds of differences emerge in various conditions of student teachers’ reflection?
The procedure of guided reflection during teaching practice in TE (Husu, Toom & Patrikainen, 2008; ACTTEA 2012-2015)

VIDEOTAPED LESSON
- Classroom events

VIDEOTAPING
- Done by student teacher at classroom
  - Focus on teacher's action

INDEPENDENT REFLECTION
- What happens during the lesson?
- What are the most important incidents (2) for you during the lesson?
  - Why?

2 CRITICAL INCIDENTS:
- Positive, empowering
- Challenging, difficult

Classroom events chosen by the student teacher according to her/his aims for teaching practice

A) INDEPENDENT REFLECTION

B) PEER REFLECTION

C) REFLECTION WITH SUPERVISOR

WRITTEN REFLECTION IN POFO/REPORT

What happens in this incident?

Why is this incident important and meaningful?

What is the more general meaning of this incident in a wider context?

What will you do with that you have understood?
Participants and data analysis

- Participants N = 77 were pre-service student teachers (primary teachers, subject teachers, special education teachers, secondary teachers: n=77) participated in the use of video-enhanced guided reflection procedure during their teaching practice.

- Written reports were used as data in this study.

- A qualitative, theory-based data analysis.


- Continuous discussion about the analyses to ensure the validity and reliability of the interpretation.
The Netherlands (N=20): preliminary results

Across conditions
- In general, student teachers described their practice *prevalently* in terms of **appraisals** and **theoretical justifications**. There were fewer recalls, artifacts and less practical justification and *very few rules*.

Between conditions
- **Self-dialogues** produced **more appraisals** than peer and supervision dialogues
- **Peer dialogue** produced **more practical justification** than the other two conditions.
- **Peer dialogues and self-dialogues** resulted in **more theoretical justification** than supervision dialogues.
Finland (N=18): preliminary results

Across conditions
• The emphasis of action oriented knowledge between the three knowledge types and their categories

<table>
<thead>
<tr>
<th>Knowledge type</th>
<th>Category</th>
<th>(N=1023)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NARRATIVE KNOWLEDGE (44%)</td>
<td>Recalls</td>
<td>(22%)</td>
</tr>
<tr>
<td></td>
<td>Appraisals</td>
<td>(22%)</td>
</tr>
<tr>
<td>INFERENTIAL KNOWLEDGE (27%)</td>
<td>Rules</td>
<td>(17%)</td>
</tr>
<tr>
<td></td>
<td>Artifacts</td>
<td>(10%)</td>
</tr>
<tr>
<td>ARGUMENTATIVE/JUSTIFIED KNOWLEDGE (29%)</td>
<td>Practical justifications</td>
<td>(17%)</td>
</tr>
<tr>
<td></td>
<td>Theoretical justifications</td>
<td>(12%)</td>
</tr>
</tbody>
</table>

Between conditions
• The data mostly consisted of peer reflection conditions (71%) due to organization of teaching practicums
• In Finnish research-based teacher education system, student teachers’ action-oriented knowledge is based on strong narrative base (recalls & appraisals) and supported by substantial argumentative/justification stance (practical and theoretical justifications)
Spain (N=18): preliminary results

Across conditions
- Generally speaking, the whole Student Teachers sample described their practice in terms of recalls and appraisals. Fewer rules and artifacts were found and practical and theoretical justifications were even more scarce. (They hardly ever supported their speech with theoretically based arguments).

Between conditions.
- Tendency in data intuitively indicates that the supervision condition showed more rules than the other two conditions.
- Supervision and peer conditions showed more justifications (both practical and theoretical) than in individual reflection.
- Self reflection prompted more appraisals about their performance than peer reflection or supervision condition.
Estonia (N=21): preliminary results

Across conditions

- In general, Estonian student teachers reported most often rules and practical reasoning and the least often theoretical reasoning.
- The preliminary findings indicate that the developed guided reflection procedure could be more suitable for student teachers who already have some teaching experience.

Between conditions

- Student teachers in supervision dialogue condition reported more rules and artefacts and fewer appraisals in comparison to other conditions.
- In contrast, student teachers in self-dialogue condition reported more appraisals and fewer rules and artefacts in comparison to other conditions.
Discussion

During teacher education, student teachers’ should
- be offered an extensive training in reflection on the professional matters of teaching
- be learn how to construct their professional action-oriented knowledge and pedagogical agency as future professional teachers through the consideration of their teaching

The presented procedure makes it possible
- to deeply perceive, analyse, and reflect on professional performance
- to guide and differentiate reflective judgments and construction of action-oriented knowledge
- to develop professionally
Key references


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Teacher reflection - what does it imply?

• Active, persistent, and careful consideration of any belief or form of knowledge Rigorous, intellectual, and emotional enterprise that takes time (Dewey, 1933)

• Meaning-making process that that moves a learner from one experience into next with a deeper understanding of its’ relationships (Rodgers, 2002)

• Teaching practice: beliefs about self, classroom teaching, and pupils’ learning are integral part of a teacher’s personal epistemology (Baxter Magolda, 2004)


• In relation to action-oriented knowledge which is related to all the beliefs and insights that are useful to practice (Verloop et al., 2001)

• The chief aim of reflective practice, is blending theory and practice so that the future practice may become informed practice (Thomson and Pascal, 2012)
The practice of reflection – why it needs to be supported?

- The problem is how to extract meanings from experiences.
- Teacher reflection tends to reinforce existing beliefs rather than challenge assumptions (Mena Marcos et al., 2009, 2012).
- We believe that being reflective has a sort of transformative power → being reflective as "methodological virtue" or "superior insight" (Lynch, 2000).
- Reflective analysis does not come naturally; guidance and peer support advance the quality of reflection (Husu, Toom, & Patrikainen, 2008; Leijen et al., 2012).
- The transformative power of dialogue (Gadamer, 1975).
- The role of guidance – to test the habits of thinking and action (Husu et al., 2008).