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Lesson Study in Initial Teacher Training in Groningen, the Netherlands

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Crafting Sustainable Pedagogies for Teaching and Learning

Lesson Study in Initial Teacher Training in Groningen, the Netherlands

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Lesson
Study



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Gemeente
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22-11-2019

Structure of the presentation

- ✿ Introduction
- ✿ LS in ITE at the University of Groningen 2018-2019
- ✿ Research questions
- ✿ Method
- ✿ Results
- ✿ Conclusions and discussion

Introduction – Dutch context

Teachers of the future:

- ✿ are viewed as self-responsible with decision-making power;
- ✿ take an inquiry stance: do practical research themselves for the benefit of professionalization and practical improvement;
- ✿ have developed relevant knowledge and skills to do so.

→ Challenges for ITE

Challenges of research in ITE in the Netherlands

(Westbroek & Kaal, 2016)

Student teachers:

- ✦ have to become proficient in a new profession and research areas in a relatively short time;
- ✦ often do not associate conducting research with their professional practice and concerns;
- ✦ often experience an insufficient inquiry stance at their practice schools.

Educational research in general usually does not immediately offer practical applications.

→ University of Groningen: Lesson Study in ITE-program

Lesson Study in ITE 2018-2019

(university master of education; 16 subject matters)

The student teacher is able to:

- ✦ formulate a research question
- ✦ based on an analysis of:
 - educational needs of pupils
 - possibly effective didactic approaches
- ✦ articulate research method(s) and instruments
- ✦ articulate research results
- ✦ draw conclusions from the results and relate them to earlier findings
- ✦ discuss the relevance, and express the implications for teaching practice

Two forms of LS in ITE Groningen

1. 3 student teachers who share the same subject matter
 - different practice schools
 - self formed groups
 - supervised by teacher educator - expert in same subject matter

2. student teachers work together with experienced subject teachers at their practice school
 - in the context of school-university partnership
 - supervised by LS-facilitator of the practice school
 - teacher educator experts consultable as knowledgeable others

School year 2018-2019

all 100 students:

🌿 variant 1: 90

🌿 variant 2: 10

in this study we take them together

Organisation LS in ITE

- ✦ 5 ECTS
- ✦ January – July 2019
- ✦ Resources: study manual, workbook with timetable and forms
- ✦ Formative and summative feedback moments
- ✦ Scheduled working moments
- ✦ 2nd supervisor / assessor: extra feedback
- ✦ teacher educators and facilitators: trained, intervision sessions

LS in 9 steps (1)

1. Formulation didactic problem, related to own subject matter
2. Analysis needs of pupils
3. Analysis possibly effective didactic approaches + selection didactic approach
4. Formulation Research Question
5. Designing Research Lesson (RL), including instruments for data collection:
 - observation instruments
 - interviews after RL
 - other instruments (written work, questionnaire, exit-tickets...)

LS in 9 steps (2)

6. Teaching RL + collecting data
7. Post-lesson discussion: quick data lesson analysis + adjusting RL
Repeat Step 6 + 7 (1 or 2 times)
8. Thorough data analysis of all collected data + conclusion
9. Written report and poster presentation

Research questions

What do student teachers think about lesson study in initial teacher training at our university?

Sub-questions:

1. What do student teachers learn from participation in lesson study?
2. Which factors are promoting or impeding?
 - collaboration
 - school context
3. How do student teachers value lesson study in initial teacher training?

Method

✦ Additional questionnaire (AQ) (n=70) (focus in this presentation)

Not reported in this presentation:

✦ Evaluative questionnaire (EQ) as part of teacher training program (n=51)

✦ Reflection reports of student teachers

✦ Three evaluation meetings with student teachers and teacher educators

Method: Additional questionnaire (AQ)

✦ Closed Questions, five-point scale, about:

- Learning outcomes (Lewis et al., 2009)
- Collaboration (Salas et al., 2005)
- School context

✦ Open Questions

- Other learning outcomes
- Application possibilities in own practice
- Tips for LS in ITE
- Tops of LS in ITE

Results: Learning Outcomes (1)

AQ closed questions, five-point scale

| Item | Mean score (SD) |
|--------------------------------------------------------------------|------------------|
| More knowledge of the profession. | 3.1 (1.1) |
| More insight into your own vision of the school subject. | 3.1 (.85) |
| More knowledge of teaching. | 3.6 (.88) |
| Increased didactic repertoire. | 3.6 (.90) |
| Increased skill in making thinking and learning of pupils visible. | 3.5 (1.0) |
| Increased skill in observing pupils. | 3.3 (1.1) |
| Improved understanding of pupils' thinking and learning | 3.3 (.88) |
| Improved lessons. | 3.1 (.86) |
| Improved pupil performance. | 3.1 (.95) |

Results: Learning Outcomes (2)

AQ Other learning outcomes (26 student teachers)

✚ Subject matter specific teaching methodology

✚ Pupils

- “Surprising to see how different pupils respond to the topic”

✚ Collaboration

- “Encourages consultation and collaboration with colleagues”

✚ Visit other schools and see fellow students teach

Results: Learning Outcomes (3)

AQ Other learning outcomes

✦ Lesson Study research process

“Analytic view”

“Better research skills”

“Critical thinking about design principles”

versus

“All I thought already was proven. I did not need LS. It did not add anything to my prior knowledge”

Results: Learning Outcomes (4)

AQ Application possibilities in own practice (26)

✦ Subject matter specific teaching methodology

- learning content
- lesson goals
- learning activities
- teaching activities

✦ Pupils

- making learning visible
- talking more with pupils

✦ 13 student teachers indicate that they want to apply it

Results: promoting or impeding factors (1): Collaboration

AQ closed questions – five-point scale

| Item | Mean score (SD) |
|------------------------------------------------------------------------------|-----------------|
| There was good leadership in the group. | 3.6 (1.1) |
| Group members knew what the intention was and understood each other in this. | 3.6 (1.2) |
| Group members knew what tasks there were and how they were distributed. | 3.6 (1.2) |
| Group members supported each other. | 4.1 (.98) |
| Group members gave each other feedback. | 4.0 (.97) |
| The group members trusted each other. | 4.0 (1.1) |
| The group members communicated well with each other. | 3.9 (1.2) |
| The group had the feeling of being a group. | 3.9 (1.2) |

Results: promoting or impeding factors (2): Schoolcontext

AQ closed questions - five-point scale

| Item | Mean score (SD) |
|-------------------------------------------------------------------------------------|-----------------|
| My school has facilitated my LS assignment at my own school via the timetable. | 3.0 (1.7) |
| My school has facilitated my LS assignment at another school through the timetable. | 3.4 (1.7) |
| My school has facilitated my LS assignment in space. | 2.9 (1.6) |
| The management expressed interest in my LS assignment. | 1.8 (1.2) |
| My mentor showed interest in my LS assignment. | 3.2 (1.4) |
| Colleagues have participated in LS activities such as observation and discussion. | 2.9 (1.6) |
| The participation of colleagues in LS activities had added value for me. | 2.8 (1.6) |

Results: appreciation of lesson study in

Tips from AQ (64 in order of frequency)

Organisation of the Lesson Study course:

- (form) report
- provision of information
- workload
- workbook
- guidance and feedback
- place in curriculum
- interim deadlines
- rubric

Results: appreciation of lesson study in Tops from AQ (69 in order of frequency)

✚ Lesson Study research process

“encourages an inquiry stance in your own lessons”

✚ Collaboration

“fun to get inspiration together”

✚ Pupils

“it was interesting to observe pupils so directly and closely”

✚ Subject matter specific teaching methodology

“you gain more insight into the subject”

✚ Visit other schools and see fellow students teach

“fun to come in other schools; useful for you as a teacher”

Conclusions

- ✦ Promising learning outcomes, especially:
 - More knowledge of teaching
 - Increased skill in didactic repertoire
 - Increased skill in making thinking and learning of pupils visible
 - Inquiry stance
- ✦ Although educational research in general usually does not immediately offer practical applications, a large part of the student teachers also apply what they have learned in their own practice.
- ✦ Collaboration part of LS seems to be an important promoting factor.

Discussion

Our student teachers: are they well prepared now in the one and a half years that they spent with use as a teacher of the future?

- ✦ When we look at the outcomes, the collaboration and the tips: this looks promising.
- ✦ When we look at the schoolcontext and the tips: required improvements for next school year:
 - Support from the practice school
 - Practical organization of the course (provision of information, form of assessment, workload)

**Thank you very much
for your attention!**

Other slides

Overview

| Method | What do students learn from participating in lesson study? | Which factors are promoting or impeding |
|-----------------------------------------------|------------------------------------------------------------|-----------------------------------------|
| EQ – Closed question: Intent and Utility | X | |
| EQ – Closed question: Facilitation | | X |
| EQ – Closed question: Collaboration | | X |
| EQ – Closed question: Transparency Assessment | | |
| | | |
| AQ – Closed question: Learning outcomes | X | |
| AQ – Closed question: Collaboration | | X |
| AQ – Closed question: Schoolcontext | | X |

Method: Evaluative questionnaire (EQ)

- ❖ Closed Questions, five-point scale, about:
 - Structure of the course and utility Lesson Study
 - Working in groups
 - Facilitating Lesson Study by the school

- ❖ On a five-point scale, a score of 3.5 or more means that a certain aspect can be called good. A score lower than three indicates a problem where an intervention is necessary.

Results: Purpose and utility

| Item | Mean score (SD) |
|---------------------------------------------------------------------------|-----------------|
| The purpose of the Lesson Study was clear. | 3.02 (1.19) |
| Lesson Study has provided me with useful information and insights. | 3.39 (1.23) |
| Lesson Study is a good addition to education in the Teacher Training. | 3.06 (1.30) |
| I will regularly apply Lesson Study in my future profession as a teacher. | 2.63 (1.08) |

Scale reliability Additional Questionnaire

| | Scale reliability | Mean (SD) |
|-----------------------|-------------------|-----------|
| Collaboration | .94 | 3.9 (.95) |
| School context | .76 | 2.8 (.99) |
| Outcomes | .76 | 3.3 (.55) |

Results: Correlations

| | Collaboration | School context | Outcomes |
|----------------|---------------|----------------|----------|
| Collaboration | 1 | .170 | .398** |
| School context | .170 | 1 | .057 |
| Outcomes | .398** | .057 | 1 |

** . Correlation is significant at the 0.01 level (2-tailed).

Results: promoting or impeding factors (3): Other factors from AQ open questions

✦ Promoting factors:

- Variant 1: ‘nice to visit different schools’

✦ Impeding factors: related tot the organization of the program:

- Too little feedback in final phase
- Overload of forms in handbook
- Missing knowledge about research techniques
- Workload
- Method of Assessment
- Information provision