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Lesson Study in Initial Teacher Training in Groningen, the Netherlands

Bakker, Carien; Vries, de, Siebrich

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Crafting Sustainable Pedagogies for Teaching and Learning

Lesson Study in Initial Teacher Training in Groningen, the Netherlands

- Carien Bakker c.h.w.bakker@rug.nl
- Siebrich de Vries s.de.vries@rug.nl

rijksuniversiteit groningen

University of Groningen

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 tops: 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: Transparancy 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