LESSON BASED PROFESSIONAL DEVELOPMENT:

HELPING PRIMARY TEACHERS TEACH 21ST CENTURY SKILLS

Dr. paed. Dace Namsone

The Interdisciplinary Center for Educational Innovation of the University of Latvia

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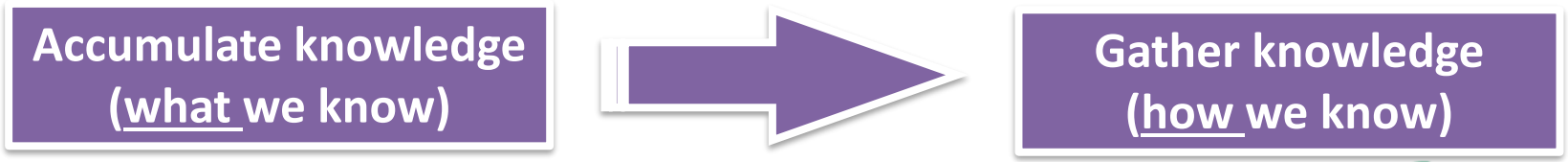
Deep learning & 21st century skills

- Latvia: changes in curriculum for developing 21st century skills
- 21st century skills can be acquired through deep learning approach (Fullan & Langworthy, 2014)



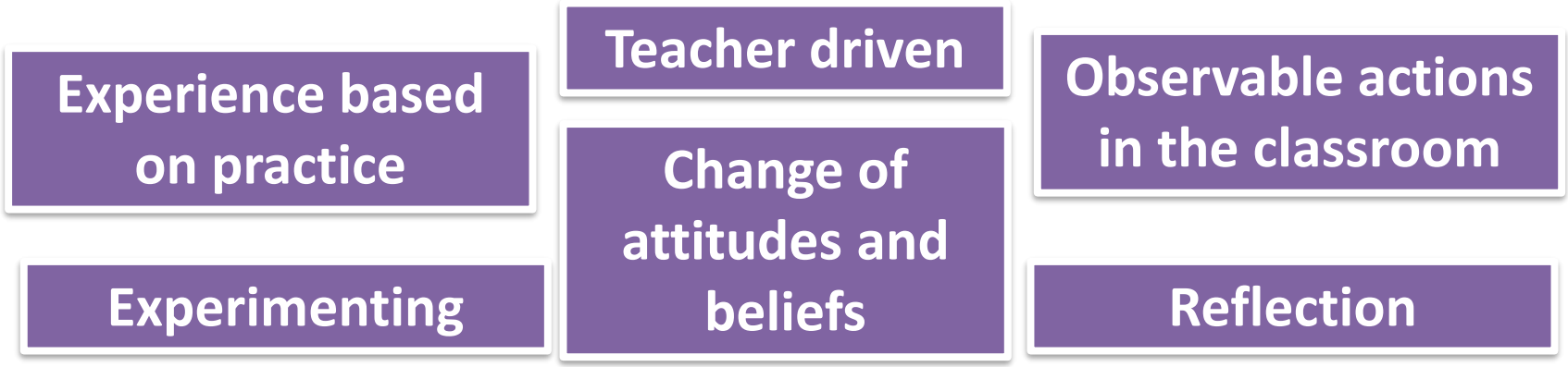
Problem: Gap between policy & practice

- Lesson observations in Latvia reveal a gap between policy and actual teaching approaches
- (France, Namsone & Čakāne, 2015; Volkinsteine & Namsone, 2016)
- There is a need for additional approaches to help teachers implement teaching of 21st century skills

education policy regulations ≠ **actual teaching approaches in schools**

Goal & Research Question

- Development of a lesson-based professional development model consisting of the following elements:



- *What are the first signs that evidence the positive impact on the LBPD model on teacher performance in teaching 21st century skills?*

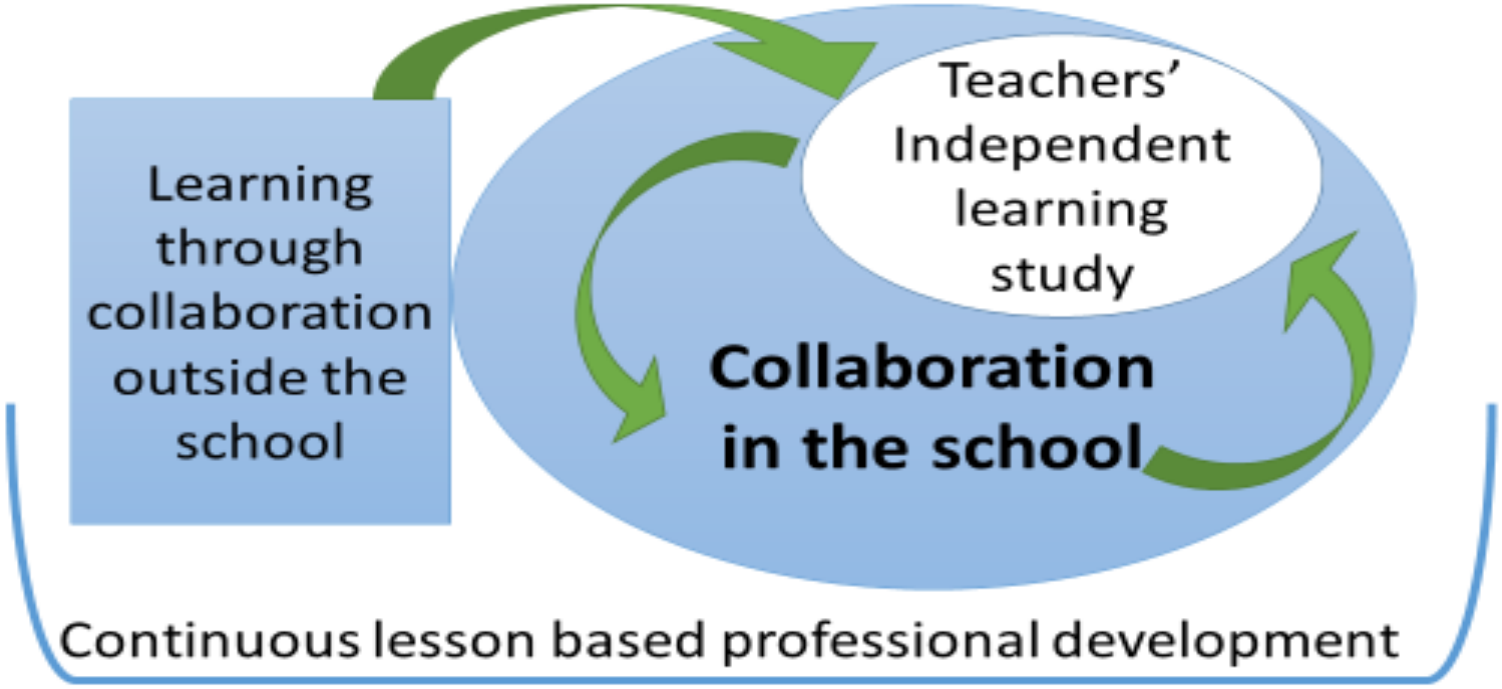
Methodology: Participants

- Time: two school years 2014/2015 and 2015/2016.
- Two regional primary school teacher groups (consisting of 6 and 7 teams)
- Each team = 2 primary school teachers teaching mathematics and science + school administration representative
- 8 expert-coaches

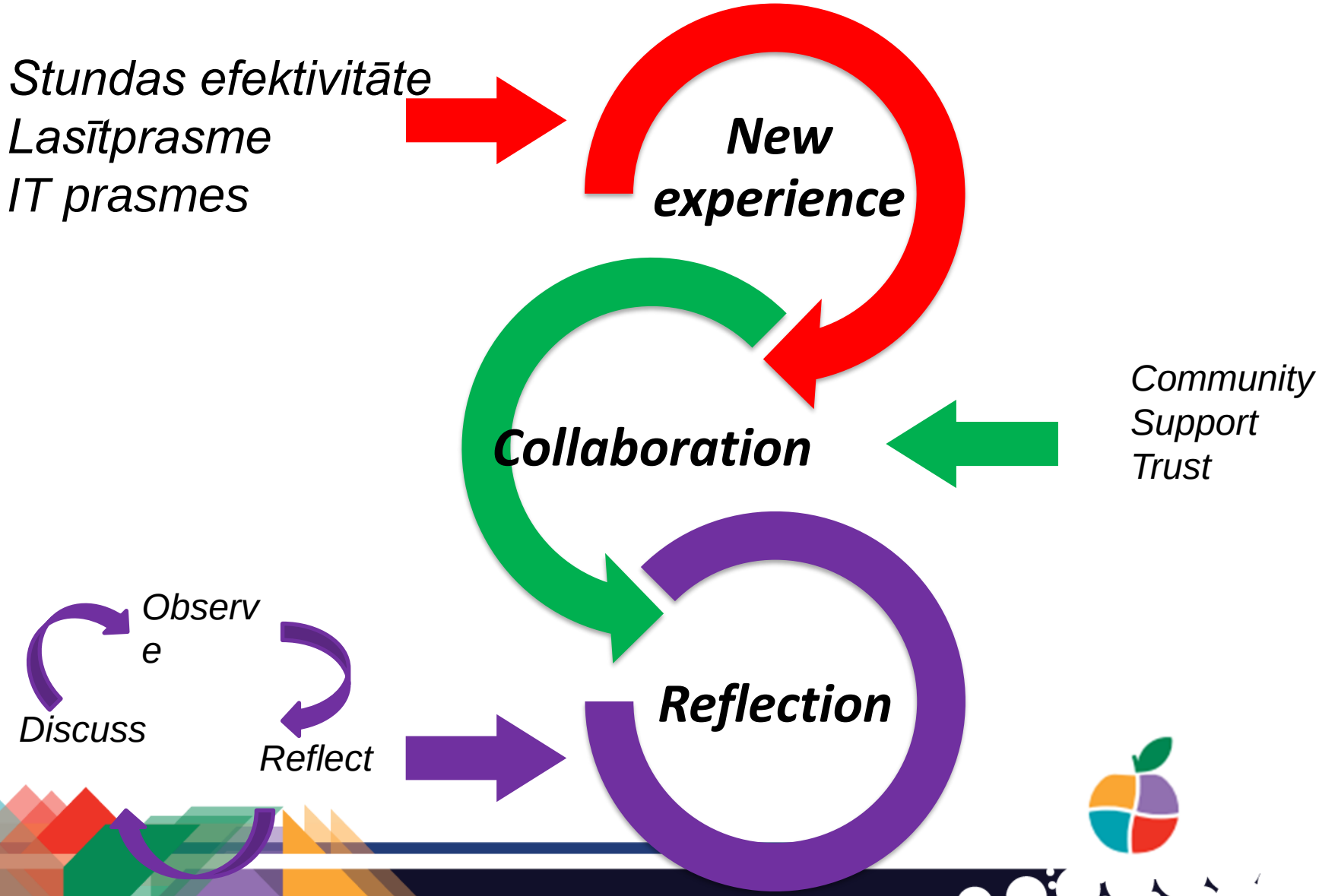
Methodology: Data sources

- Teacher questionnaires – self-evaluation of skills
- 52 Lesson plans developed by teachers
- 44 Lesson observations
- Structured interviews with school administration (12 participants)
- Final teacher focus group discussion (21 participants)
- Expert-coaches focus group discussions

Proposed model

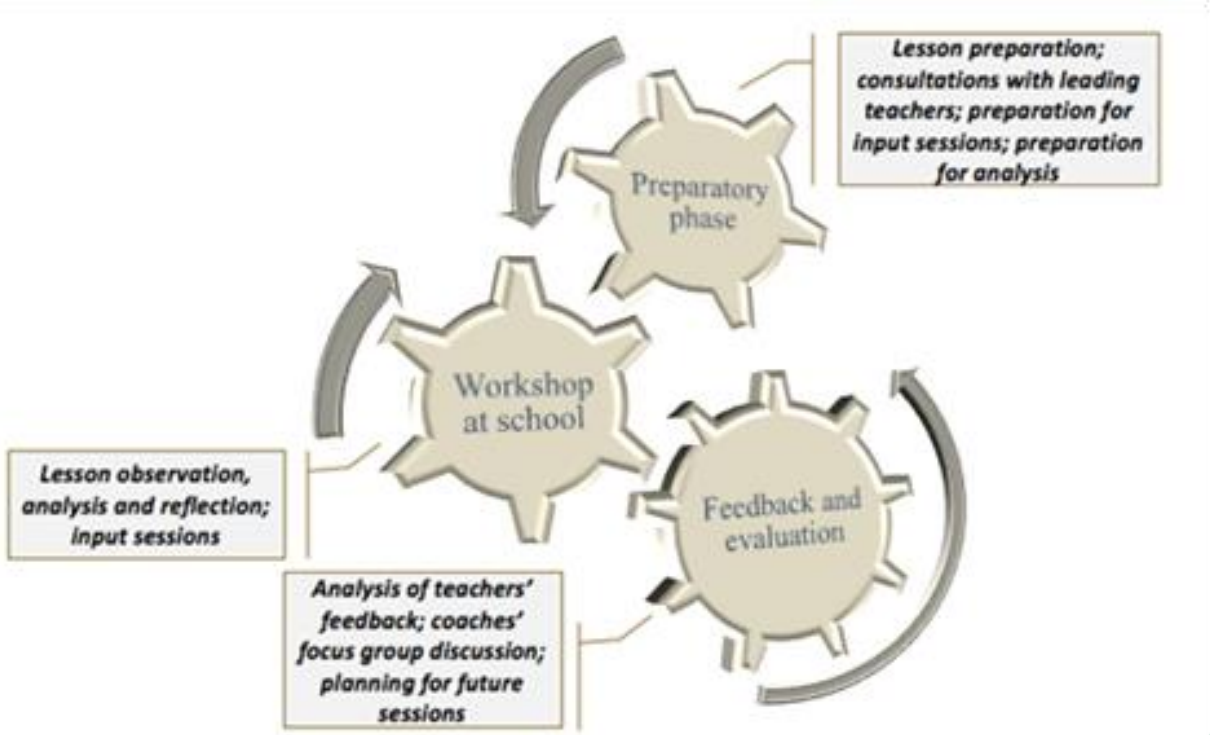


Learning philosophy

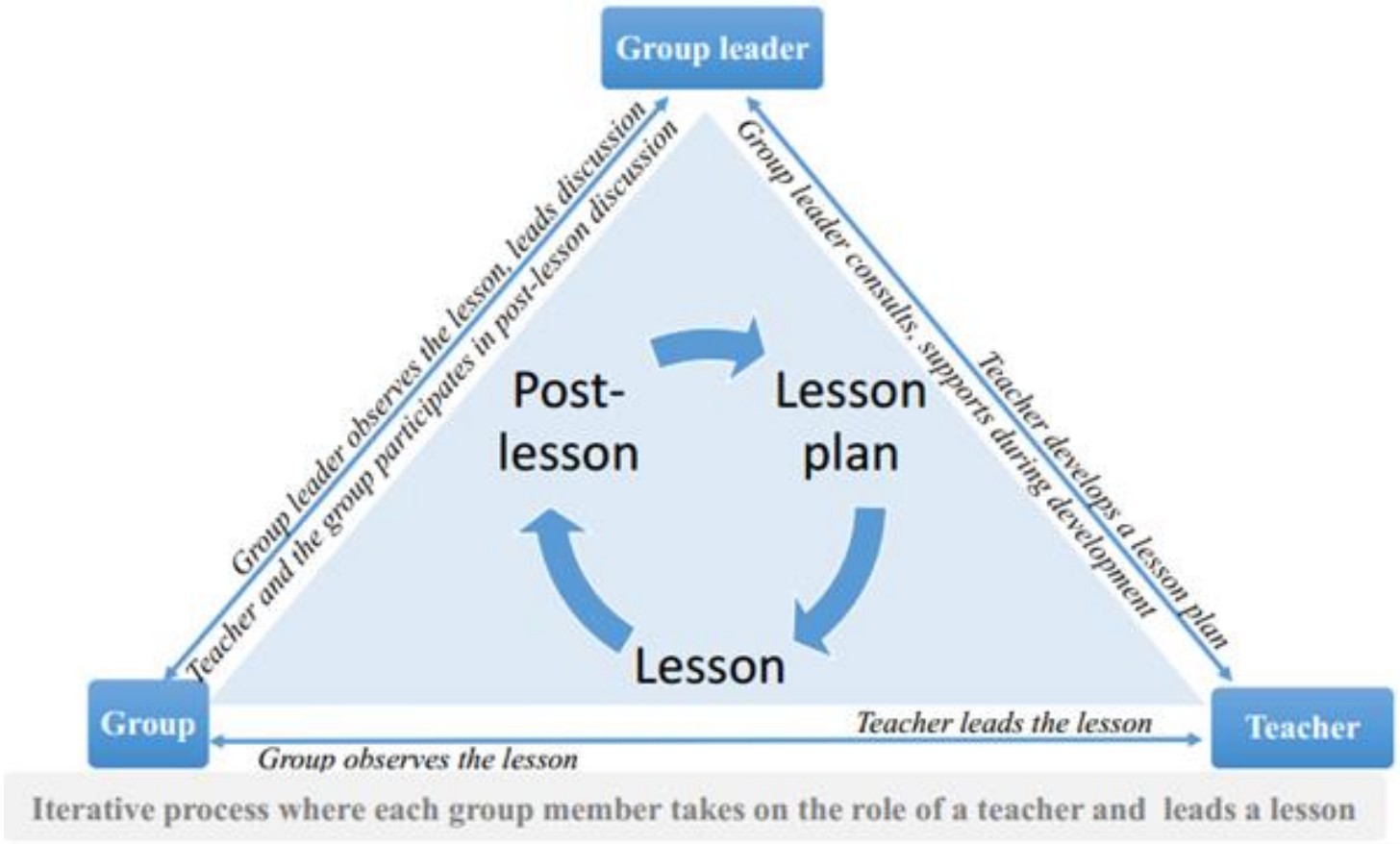


1st element of the model: workshops

Longterm workshops for lesson observation & analysis



Structure of workshops



2nd element of the model: lesson studies

- After workshops teachers receive an individual assignment
- Learning study = independent teacher's work happening between workshops
- Development and piloting of lesson plans with the help of expert-coach
- Reflection and finding artefacts after piloting
- In other words = examination of personal practice with an aim of improving it (action research)

3rd element of the model: support at the school

- Teacher teams in the school plan, observe and analyse pilot lessons together
- Providing and receiving feedback from each other
- Reflection
- Involvement of school administration

Curriculum

Transversal skills crucial for the 21st century student:

1) Analytical and critical thinking (knowledge construction)

2) Self-directed learning

3) Collaboration

Main findings (1)

- Teachers acquired experience in developing essential 21st century skills in students
- Gradual improvement of skills: giving feedback to students, communicating learning goals and developing student meta-cognitive skills
- Depth of cognitive activity and complexity in 38% of the developed samples reaches level 3 (on the scale 0-4)

Main findings (2)

- Teachers acquired assurance about the significance of mutual lesson observation and analyses of their professional growth
- Leading, observing and analysing lessons boost motivation to improve teacher's lesson planning and reflect on the essence of the lesson and its effectiveness
- 59% responded "certainly yes", "yes", or "rather yes"' that they had acquired assurance as a leader

Key factors facilitating professional skills

- Regular planning meetings with colleagues (85%)
- Mutual lesson observation and analyses with colleagues (70%)
- Individual feedback on implementation of new things in learning, developed lesson plans etc. from colleagues (75%) and from expert-coach (65%)
- Ongoing collaboration with an expert-coach, analysing performance and planning future activities (40%)

Room for improvement

- Teachers need help to facilitate more productive discussion in the classroom
- 71% of teachers admit that learning in the model created a certain level of stress
- Work on developing student collaboration skills is continuing because only 19% of lesson plans show a higher level of collaboration in the lesson
- Not all teachers are certain about their immersion and progress; perfect acquisition of the necessary skills takes time: *“I know how to do it, but I have not learned how to do it in the classroom”*

Implications for policy adjustments

- Rethink the formal regulations for teacher professional education
- LBPD model fails to fit into the formal approach where learning is a one-time course or seminar with occasional attendance
- Effective implementation of innovations require sustainable, long term teacher learning in the school and in their classrooms
- Practice is crucial for teachers to gain assurance of the effect of different teaching methods

Conclusions

- Main elements in the model that proved to be effective:
- Support for teacher collaboration at the school for mutual learning possibilities
- Individual activity – learning study
- Long-term commitment

Further research

- There is room for improvement: a need for more experience in learning how to implement teaching of 21st skills
- Dissemination of good practices
- More in-depth research on impact of the cross-functional skills on overall student outcome

References

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Latvijas Universitātes
Starpnozaru izglītības
inovāciju centrs

More information:

Dace.Namsone@lu.lv