

DESIGNING & PILOTING ONLINE TESTS AS PART OF A TEACHER COMPETENCE ASSESSMENT

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23.05.2019.



OUR TEAM



**Inese
Dudareva**



**Dace
Namšone**



**Dace
Bērtule**



**Līga
Čakāne**



**Uldis
Zandbergs**



**Anete
Butkēviča**



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BDA

BACKGROUND

Latvian education context

- **Curricula changes and focus on 21st century skills as a student learning result (to be implemented in 2020-2021)**
- **Teacher classroom work and professional development should be adjusted to these changes**

What about human resources in schools?

Teacher performance in Latvia

- **Formally, teacher performance is assessed in 3 levels (“yes/no” scale)**
- **Follow-up on teacher work not based on scientific research, nor best practices**
- **Professional development weakly linked to actual teacher performance**
- **OECD recommendation to develop a coherent assessment framework for informing policy and educational practices**

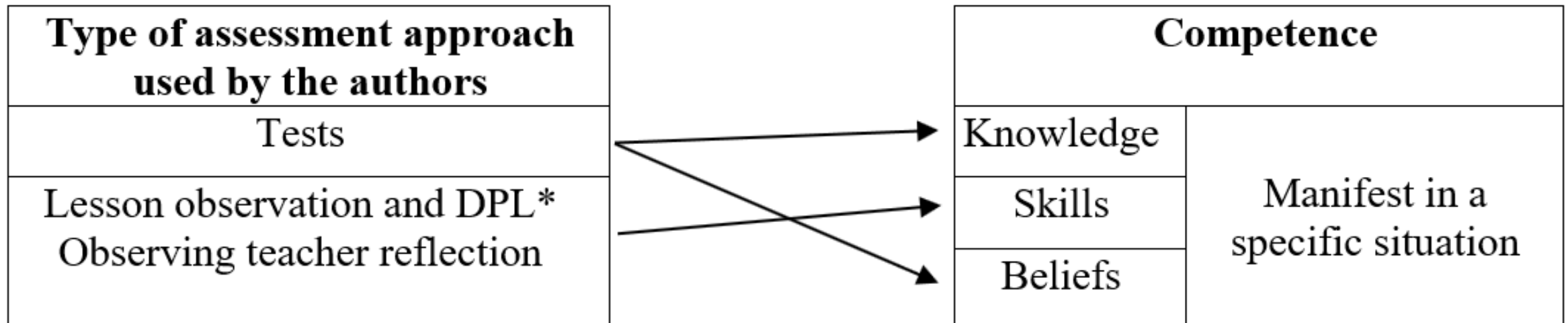
Our suggestion for improving teacher assessment

- **Teacher competence assessment with the help of on-line tests**
- **Information from test results can help identify teacher learning needs**
- **Competence assessment linked to school goals**

About tests as teacher assessment tool

- **Lack of tests that assess pedagogical knowledge**
- **Results of tests rarely used for in-service teacher professional development**
- **Testing as a way to link employee performance & competence to organization's goals (broadly used in the private sector)**

Teacher competence structure & assessment



*description of performance levels

Category-criteria framework for teaching performance to develop students' 21st century skills

Categories		II 1	II 2	II 3
		Planning	Teaching	Classroom environment
IA 1	Student self-regulation	1.1. Learning goals	1.2. Metacognitive skills	
IA 2	Student cognitive activation	2.1. Learning tasks for cognitive depth	2.2. Classroom discourse	
IA 3	Student collaboration	3.1. Learning tasks for collaboration	3.2. Student collaboration	
IA 4	Leveraging digital	4.1. ICT tools	4.2. Meaningful ICT usage	
IB 5 IB 6	Teacher techniques, basic skills	5.1. Lesson design	5.2. Teaching techniques	5.3. Differentiation, personalization, support
		6.1. Curriculum	6.2. Feedback to students	

RESEARCH QUESTIONS AND METHODS

Research Questions

- What is the theoretical construct for tests to assess knowledge & beliefs for teaching 21st century skills accordingly to potential school goals?
- How to design the tests that would assess teacher knowledge and beliefs for teaching 21st century skills?
- What does the test validation process show and what further improvements are needed?

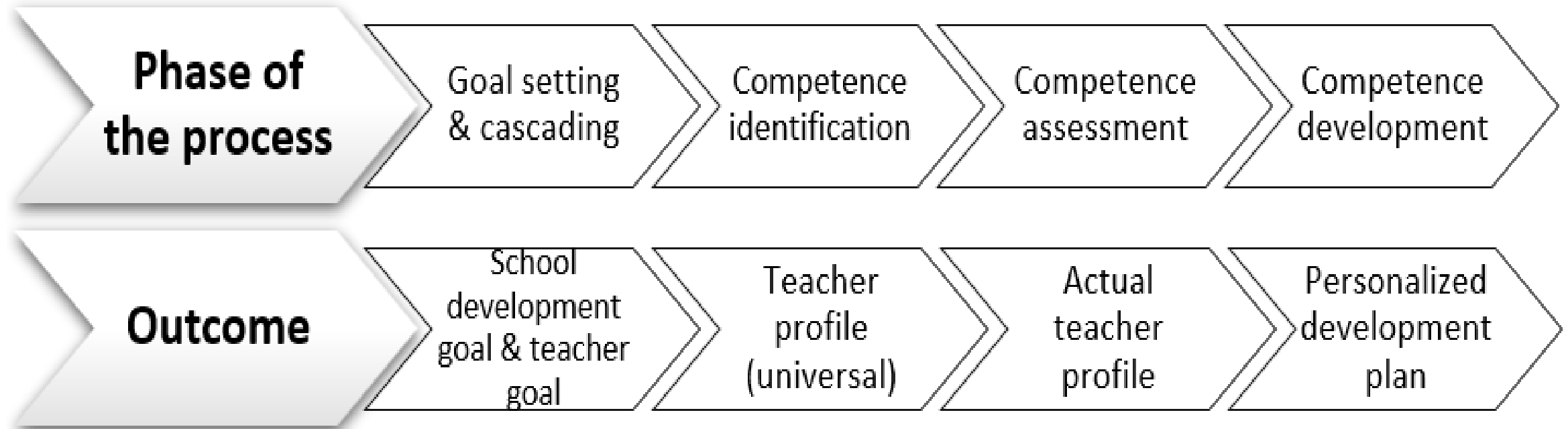
Methods used

- Team of 15 experts, validated category-criteria framework; Reviewing literature and school goals
- Defining tests' goal, potential users; identifying assessment criteria; data base of lesson observations for creating questions
- Teachers validating the test (N=197); Analysis of test results with SPSS

RESULTS

The theoretical construct for linking tests with school goals

Phases of competence management process and their outcomes:



Developing the tests

- Stage 1: developing questions
- Stage 2: selecting questions and developing tests
- Stage 3: appropriating the tests for online use (MOODLE)

Result: 4 developed tests

4 thematic parts related to teacher performance in classroom to facilitate:

student cognitive activation

student self-regulation

student collaboration

leveraging digital

Content of the tests

Types of test question:

- situational analysis tasks
- multiple choice questions
- matching assignments

Types of question answers:

- multiple or single choice
- matching judgements or situation descriptions to teachers' characteristic behaviour;
- yes/no answers; and with different points (from 3 to 7).

Example of a test question

Jautājums 7

Nav vēl atbildēts

Maksimālais
punktu skaits 4,00

▾ Karogot
jautājumu

⚙ Rediģēt
jautājumu

P_R_1

Lūdzu, izvēlieties vienu sev vistipiskāko rīcību, kā Jūsu skolēni uzzina stundas mērķi!

Izvēlieties vienu:

- A. Pasaku, ko šodien stundā darīsim.
- B. Veidoju sarunu ar skolēniem, rosinot domāt, ko par šo tēmu mums vajadzētu apgūt, kāpēc tas ir svarīgi, un kopīgi formulējam mērķi.
- C. Pasaku, ko stundas beigās skolēns zinās un spēs izdarīt vai kāds būs labs sniegums.
- D. Pasakot, ko stundas beigās zinās, prafīs, īpaši piedomāju, kā to varēs konstatēt un lai tas ir skolēniem pateikts saprotami.
- E. Pasaku, par ko būs stunda.

Analysis of test results

- **Tests offered easily analysable classroom situations**
- **First version of the test does not sufficiently discriminate test takers**
- **Adjustments needed for multiple choice list of answers**
- **Most questions are usable after improvements**

Conclusions & Further research

- **The theoretical construct can be extended for assessing other parts of competence and maximize the inventory of assessment tools**
- **Tests minimize the subjectivity and inaccuracy of an external assessor's activities**
- **We plan to compare teacher results from lesson observations with test results**
- **Potential to adjust the tests for teacher self-assessment**

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ACKNOWLEDGEMENTS

This research is supported by the ERDF research project "The Application of Principles for Information System Modelling to Structured and Goal-Oriented Competence Management", agreement No. 1.1.1.1/16/A/252



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THANK YOU!

Any questions?

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