TEACHERS’ AND STUDENTS’ NEEDS RELATED TO IMPLEMENTATION OF FORMATIVE PEER ASSESSMENT IN IBSE IN CZECH SCHOOLS
(first findings of ASSIST-ME Project)

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Many difficulties

- A lack of appropriate support for teachers - observed in many countries (Bernholt et al., 2013; Brown, 2004).

- Czech Republic - summative assessment culture (public/parental expectations); scarce/fragmented experience and literature (c.f. Zlabkova, Rokos, 2013; Laufková, Novotná, 2014).

- Teachers usually do some formative feedback, but sometimes is the term „formative“ misinterpreted (William, 2004; Newton, 2007; Stáry, 2007).
**Implementation of formative assessment**

- **ASSIST-ME project** *(Assess Inquiry in Science, Technology and Mathematics Education)*
  - **CZ**: Peer-assessment in IBE primary integrated science and mathematics and lower secondary biology.
- **RQ**: What are the main challenges related to the uptake of formative assessment in the daily practices in STEM education?

**Actor’s perspective**

- What are the needs that teachers and students have in relation to broader implementation of formative assessment?
Method

- Participants and the Task
  - **Integrated Science**
    - 2 teachers, 3rd grade classes (48 students)
  - **Biology**
    - 2 teachers, 7th grade classes (60 students)
  - **Primary Mathematics**
    - 2 teachers, 5th grade classes (45 students)
Problem: How many lentil grains are there in a 500 g packaging?
Method

- Data collection
  - data about (methods/tools stimulating) peer-assessment (not presented here)

- data about teachers’ and students’ needs
  - interview with students
  - interview with teachers

- 2 primary math – teachers’ subjective theory of FA (Struktur Lege Technik; Scheele, Groeben, 1988)
Method

- Data analyses
  - open coding and hierarchical sorting
    (transcripts of interviews; re-coding and inter-rater in process)
  - construction of representation of teacher’s subjective theory of FA in IBE
Example of data analyses

subjective theories

FA in IBE and myself – feelings, expectations

the essence of FA

changes needed for FA implementation
I need more information, some help = help from workbook authors because current workbooks are overloaded, we do not have time, parents see the textbook as a feedback and therefore if we do something else, they (students, their parents) do not see it as learning

Changes needed for FA implementation?
Needs according to subjective theories - example

before

„help from workbook authors“
- more time
- assessment tools

after implementation

„to see someone doing it properly“
- too many hindrances
- it will take a lot of time to regularly implement
- not enough experience – I can’t imagine
- structure/scaffold where to implement
Teachers’ categories:
- lack of determination - changes current status is convenient (need to cope with parents and students demands for marks)
- lack of time
- lack of scaffolding for students (structured assessment tools)
- lack of scaffolding for teacher
- preparatory work with students (develop peer-assessment skills)
- team work (researchers, colleagues to share)
Students’ categories:

- peer language (in the feedback is an advantage)
- discomfort (elevated social tension when peer feedback is not provided properly)
- uncertainty about levels of assessed criteria (possibility to see more works and compare them before providing feedback)
- scaffolding when they didn’t know the right solution (and how to assess without knowing it)
- information correctness and richness (feedback from teacher prefered as more reliable)
WHAT do the students need?

• to understand the role of peer assessment (in formative climate of learning)

• to reveal the advantages and learn how to cope with disadvantages of FPA (peer vs. teacher feedback etc.)

• time to gain skills for providing/receiving peer assessment – regular use of FPA and adequate scaffolding (e.g. progress tables)
Conclusions

What do the teachers need?

• time to develop deeper understanding of the role of formative peer assessment in inquiry-based instructions
• preparation of proper “set-up” (school team, parents, students)
• support for its implementation into classroom practice
  • to create appropriate materials and tools for assessment is necessary but not enough, video examples are important
• but the most important is possibility to share and work in team
Thank you for your attention.

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