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ASSESSMENT FOR LEARNING IN FIRST YEARS OF SCHOOLING

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Aims of the study

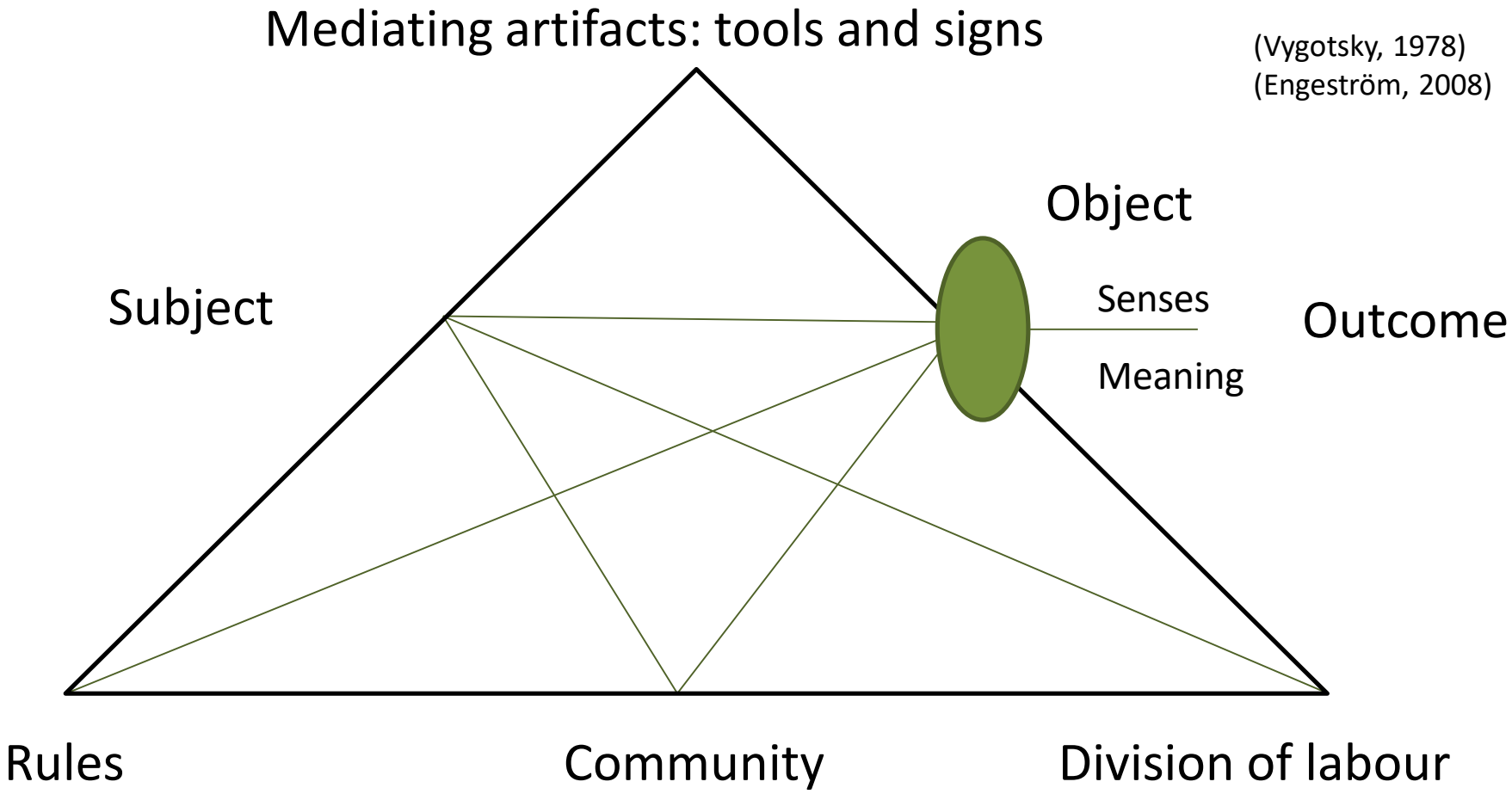
To understand if assessment for learning is possible with students from early school years

- Are students able to identify and correct their errors in mathematics in A*f*L practices context (portfolio and quizzes)?

- Which contributes for learning came from A*f*L practices (portfolio and quizzes)?

Theoretical framework

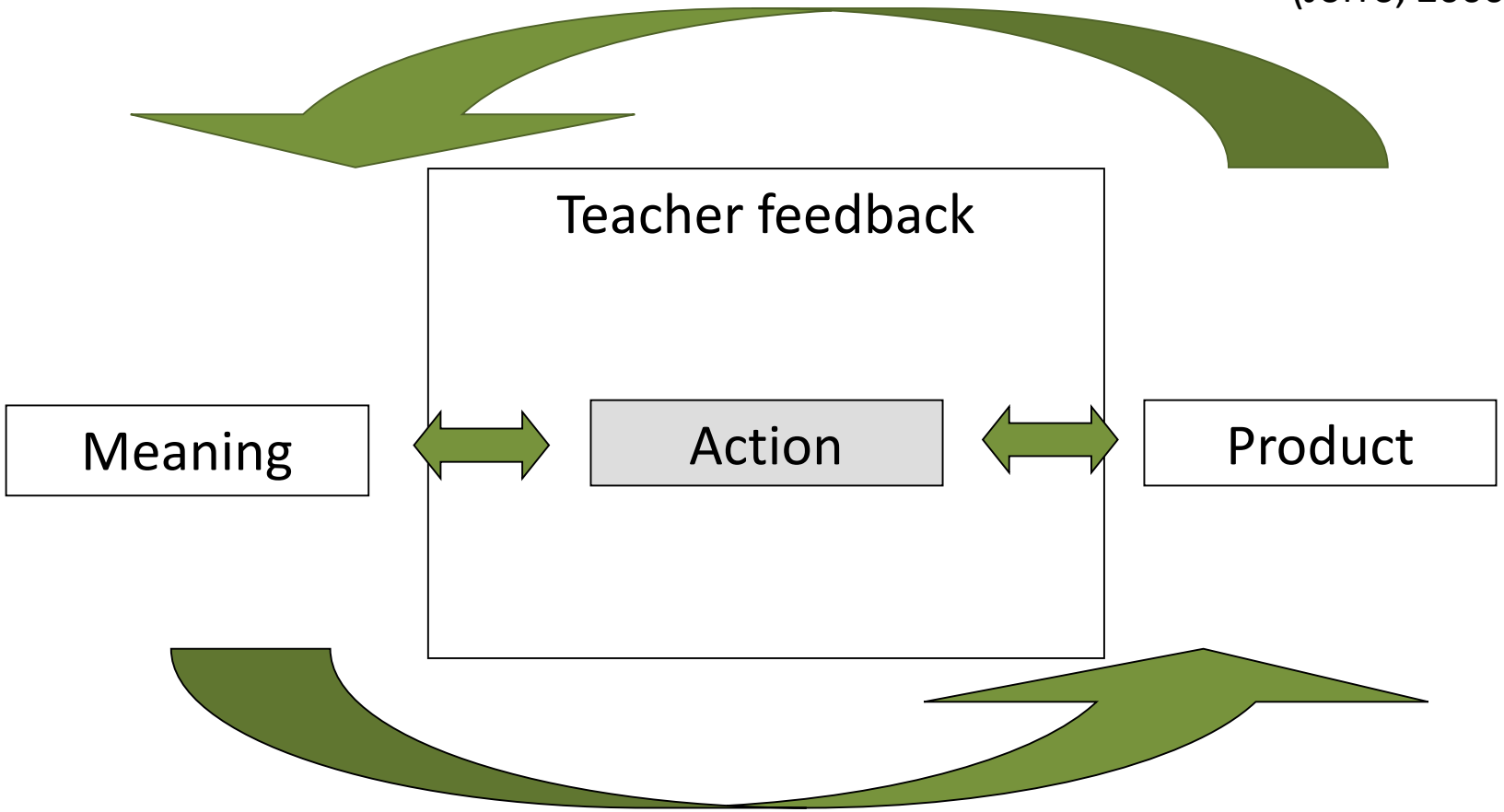
Learning as a cultural and activity process



Theoretical framework

Feedback as a learning artefact

(Jorro, 2000)



Conceptual clarification

Assessment is a process, a communication activity that includes planning and

(Black, 2013; Figari & Remaud, 2014; Santos & Cai, 2016)

A*of*L and A*f*L differs from their purposes. What matters is how the evidence is used.

(Harlen & Gardner, 2010)

Methodology

- Interpretative approach, two studies

26 students, 7 years-old	⟺	Sara Gomes	**Quizzes**

- Students:

21 students, 6/7 years-old	⟺	Susana Castanheira	**Portfolio**

Quizzes

Short test at the end of a class
(Brookhart et al., 2004)

- Focus on conceptual and processual fluency (NCTM, 2014)
- Total: 9
- 1 per week, 10m
- 1st version + feedback + 2nd version
- First: oral feedback, written feedback with oral one if necessary
- Feedback: to improve or to introduce a challenging task

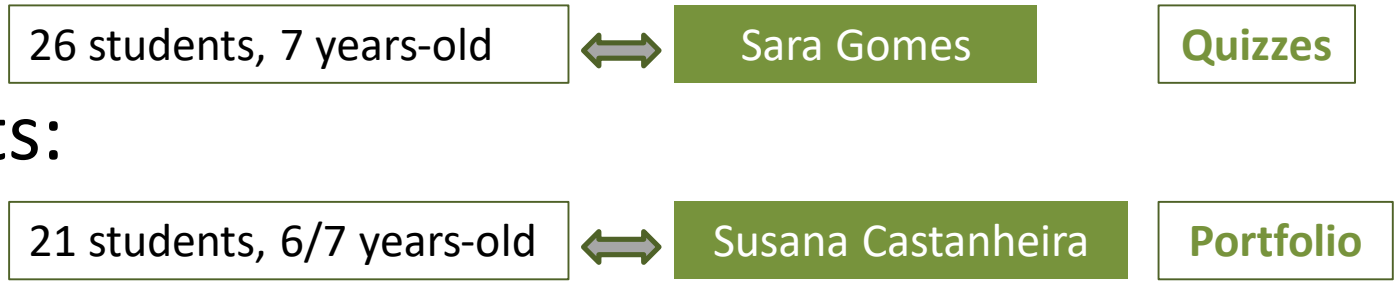
Portfolio

- *A comprehensive collection of student work (…) to support a child (learner) with their understandings of concepts, ideas, and emotional self.*
(Seitz & Bartholomew, 2008)

- During 1,5 month
- 2 phases: plan (with negotiation) and implementation (with discussion between teacher and student)
- Tasks where they learned more and had more difficulties (3 + 3)
- Guide with questions to support reflection

Methodology

- Interpretative approach, two studies



- Students:

- Data collection: classroom observation, students' interviews and documents produced by the students

Methodology

- Interpretative approach, two studies
- Students:

26 students, 7 years-old	⟺	Sara Gomes	Quizz
21 students, 6/7 years-old	⟺	Susana Castanheira	Portfolio

- Data collection: classroom observation, students' interviews and documents produced by the students
- Data analysis: categories defined – students' performance face to the error; mathematics learning

Quizz

Results

T: I notice that you have some errors. Do you want to come with me to correct them?

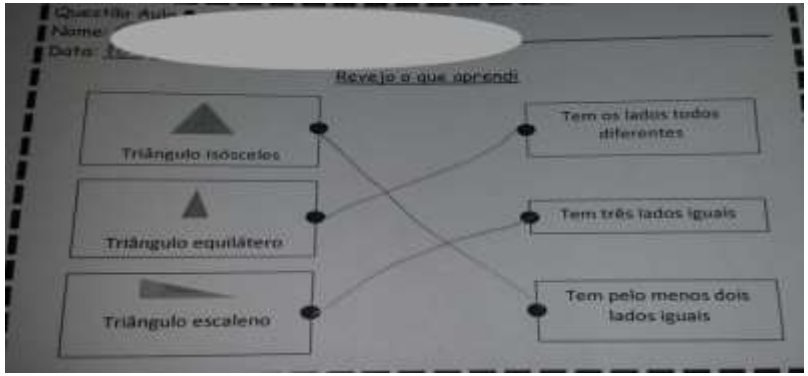
S: Yes (begins to analyse the quizzes)

But I don't know what is wrong.

T: I help you. Open your textbook on page 45. Are you able to find any cue?

S: Oh… yes, the equilateral has all sizes equal and in the scalene they are all different.

T: Very well! Now you only have to correct.



Oral feedback complements the written one. Helps the student to commit with the correction

Quizz

Results

	Q5	Q6	Q7	Q8	Q9
All correct	7	20	9	11	7
Correct all	14	6	12	14	18
Others	5	0	5	1	1
Answer to challenge	-	-	9	11	7

Q5 – quadrilaterals, pentagons and hexagons
Q6 – straights and semi-straight
Q7 - border and internal and external part of figures
Q8 – addition and subtraction
Q9 - additive sense of multiplication

Portfolio

Results

What was the task that you learned the most about mathematics in this fortnight?

- What did you learn with this task?
- Why did this task help you to learn?
- Would you like to have done something different? Why?

Mental calculation with numbers greater than 300. I have learned new and more difficult accounts because the task is complicated and we have to think with our heads. It is difficult because after you have said the result, one has to say how you thought. I would not like to do something different or change anything on the task.

Fig.7 – Alunos a selecionar as tarefas para o portefólio.

Portfolio

Results

What was the task where you felt the most difficulties?- What did you learn with this task? Why?

- What were the main difficulties you felt in doing this task?

- What did you learn from this task?

- Do you think that you got through the difficulties? Do you still feel the same difficulties? How did you do it?

Decompositions and reading absolute and relative numbers. I didn't learned what absolute and relative value was. My difficulty was that I had never done it. I learned and overcame the difficulties because I went to the computer with the help of my mother. I no longer feel the same difficulties because I already know what is the absolute and the relative.

Portfolio

Results

T: Do you say that you learned more from the "Building Solids" task?
S: Yes, because I did not know, but with the constructions I can grasp and see how they are only solid and also if they are or not polyhedra
T: And the task helped you to learn more. Why?

S: Because I have the solids in front of me and I do not have to imagine. I can grasp and see what which are and which are not. Help me to think. It was difficult but I got there!

T: And can you distinguish polyhedra from non-polyhedra?

S. - Polyhedra have only flat parts and non-polyhedra can have flat and curved or just curved. It is said surfaces I remembered!

T. Good! Look, the cylinder is in that group, you know?

S. It is a non-polyhedron.

T: Thank you S.

Final remarks

Students are able to identify errors and follow clues given through feedback
Are able to think about their learning experiences
Are able to think about mistakes and develop strategies for overcoming them

Assessment for learning can be developed with students of any age; the sooner they start to experience it for themselves, the better it will be for their learning+

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