ECER 2016

Dublin, August 23 to 26

The formative assessment in Primary Education: potentialities and constrains

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Portugal

Assessment practices: What research says …

At the international level

• Assessment practices in the classroom, in general, lead to a superficial learning, since encourage a "condensed" study mostly focused in memorization. There is a weak relationship between formative assessment practices and other aspects of teacher practices. (Black & Wiliam, 1998)

• The dominant assessment practices continue to be based on the status of the student and scores are still the key elements (...) Innovation is rarely accepted by teachers because they see it as impractical. (Torrance & Pryor, 2001)

(Santos & Pinto, ECER 2016)

Assessment practices: What research says …

At the national level

- Assessment for learning is not systematically used in Portuguese schools. There is little emphasis in assessment practices on providing student feedback and developing teacher-student interactions about student learning. In classroom and schools, the formative seems to be increasingly displaced by the summative and a focus on the generation of summative scores. As a result, Portugal needs a stronger commitment to improving students' achievement through the use of formative assessment to enhance student learning, rather than simply through the use of assessment summatively for recording and reporting learning.

(Santiago, Donaldson, Looney, & Nusche, 2012)

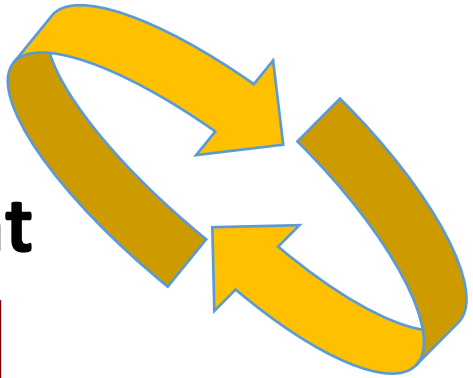
(Santos & Pinto, ECER 2016)

Formative assessment - Assessment for learning

Teaching

Learning

Assessment



Information to student

Information to teacher

- To understand what we did
- To compare to what is expected to do
- To plan what needs to be accomplished

Feedback

Alternative instruments

(Henning, McKeny, Foley, & Balong, 2012; Hodhen, 2007; Santos & Semana, 2012; Santos & Pinto, 2013; Wiliam, 2007)

Self-assessment (Zimmerman & Schunk, 2011)

(Santos & Pinto, ECER 2016)

Objective and research questions

To understand how formative assessment may be developed in primary education

- Is it possible to develop formative assessment practices in primary education?
- Are students able to recognize themselves as useful for their own learning?

Meta-analysis of four studies

Andreia Peres - 2012

The use of assessment criteria in problem solving

Inês Pimentel - 2013

Contributes of the portfolio for students learning

Susana Castanheira - 2015

Portfolio as an instrument of formative assessment

Sara Gomes - 2016

Quizzes as formative assessment in mathematics

(Santos & Pinto, ECER 2016)

Andreia Peres - 2012

The use of assessment criteria in problem solving

- Objective

To understand the contribute of assessment criteria in the development of the students' capacity to solve problems

- Participants

One class of 1st year – 20 students (six years old) + Four students selected (different level of performance)

- Methodologic approach

Qualitative.

Data collection: Observation of classes; interviews; documental analysis

Analysis of data: Content analysis

- Pedagogical context

Eight mathematical problems. Assessment criteria to support problem solving built with the children.

(Santos & Pinto, ECER 2016)

Inês Pimentel - 2013

Contributes of the portfolio for students learning

- Objective

To understand the contribute of a portfolio as a mean to differentiate teacher support

- Participants

One class of 4th year – 24 students (nine years old) + Six students selected (different level of performance)

- Methodologic approach

Qualitative.

Data collection: Observation of classes; interviews; documental analysis

Analysis of data: Content analysis

- Pedagogical context

Selection from two mathematics and Portuguese tasks that represents the one where they learn more and the one they like less, with a reflection, support by a guide line.

Teacher interview to the six students.

(Santos & Pinto, ECER 2016)

Susana Castanheira - 2015

Portfolio as an instrument of formative assessment

- Objective

To understand the contribute of a portfolio as a mean to support mathematics learning

- Participants

One class of 2nd year - 19 students (seven years old) + Six students selected (different level of performance)

- Methodologic approach

Qualitative.

Data collection: Observation of classes; interviews; documental analysis

Analysis of data: Content analysis

- Pedagogical context

Selection from all mathematics tasks during 15 days that represents the one where they learn more and the one they felt more difficulties, with a reflection, support by a guide line.

Teacher interview to the six students.

(Santos & Pinto, ECER 2016)

Sara Gomes - 2016

Quizzes as formative assessment in mathematics

- Objective

To understand the contribute of quizzes as a mean to support mathematics learning

- Participants

One class of 2nd year - 26 students (seven years old) + Six students selected (different level of performance)

- Methodologic approach

Qualitative.

Data collection: Observation of classes; interviews; documental analysis

Analysis of data: Content analysis

- Pedagogical context

Nine quizzes: Students answer to the quiz, teacher provide feedback and students reworked their first answers.

(Santos & Pinto, ECER 2016)

Learning opportunities created

- Students reflect about their own work

In the blackboard, I do not always understand, but when I do the quiz I understand better and I realize that I have learned.

- Provide evidence to the student about learning

Reading the tasks again we remember what we have study (…) reading the portfolio I got to know what I know wheel and what I do not know yet.

(Santos & Pinto, ECER 2016)

Learning opportunities created

- Provide evidence to the teacher to support learning

T: If I had put up a little cross in the more or less or bad what it was going to happen?

S: It means that I did not know very wheel or I knew nothing!

T: What would happen?

S: I did not knew everything … and I would say I need help

- Provide evidence to the parents to support learning

My mother now can help me more because the messages (the feedback) that you write help her to understand

(Santos & Pinto, ECER 2016)

The mathematics learning occurred

Clarification of concepts

T: *I saw that you have some errors, do you want to see where they are to correct?*

S: *Yes (and she began to analyse her quiz). But I do not know what is wrong!*

T: *I give you a hand. Open the math manual on page 45. Can you find any clues?*

S: *Oh, yes … the equilateral has all sides equal and the squalene has all sides different.*

T: *Very good, that's write. Now, you only have to correct!*

(Santos & Pinto, ECER 2016)

The mathematics learning occurred

Clarification of mathematics activity

At the beginning of the study

T: And problems, have you already solved a mathematical problem?

S: No!

T: Never?

S: No.

T: You do not know what it is?

S: No…

At the end of the school year

S: Four steps are needed to solve a problem.

T: Do you have any technique that helps you to solve a problem?

S: Yes.

T: Which is?

S: I close my eyes and I think.

T: You think… Very wheel.

S: With my eyes close!

(Santos & Pinto, ECER 2016)

Emerged challenges/Constrains

- Students relationship with knowledge

S: *I will not choose any task, I did not have any difficulty*.

T: *Are you sure*?

S: *Yes*.

T: *I remember the problem of ships that no one could do it. Did you not have difficulties*?

S: *I did not understood what was to be done*.

T: *So, do you not think that you had difficulties in this task*?

S: (silence)

T: *It is not matter to error. We can even learn from our mistakes*.

S: *I had never thought about it…*

(Santos & Pinto, ECER 2016)

Emerged challenges/Constrains

- Formality is more recognize by students

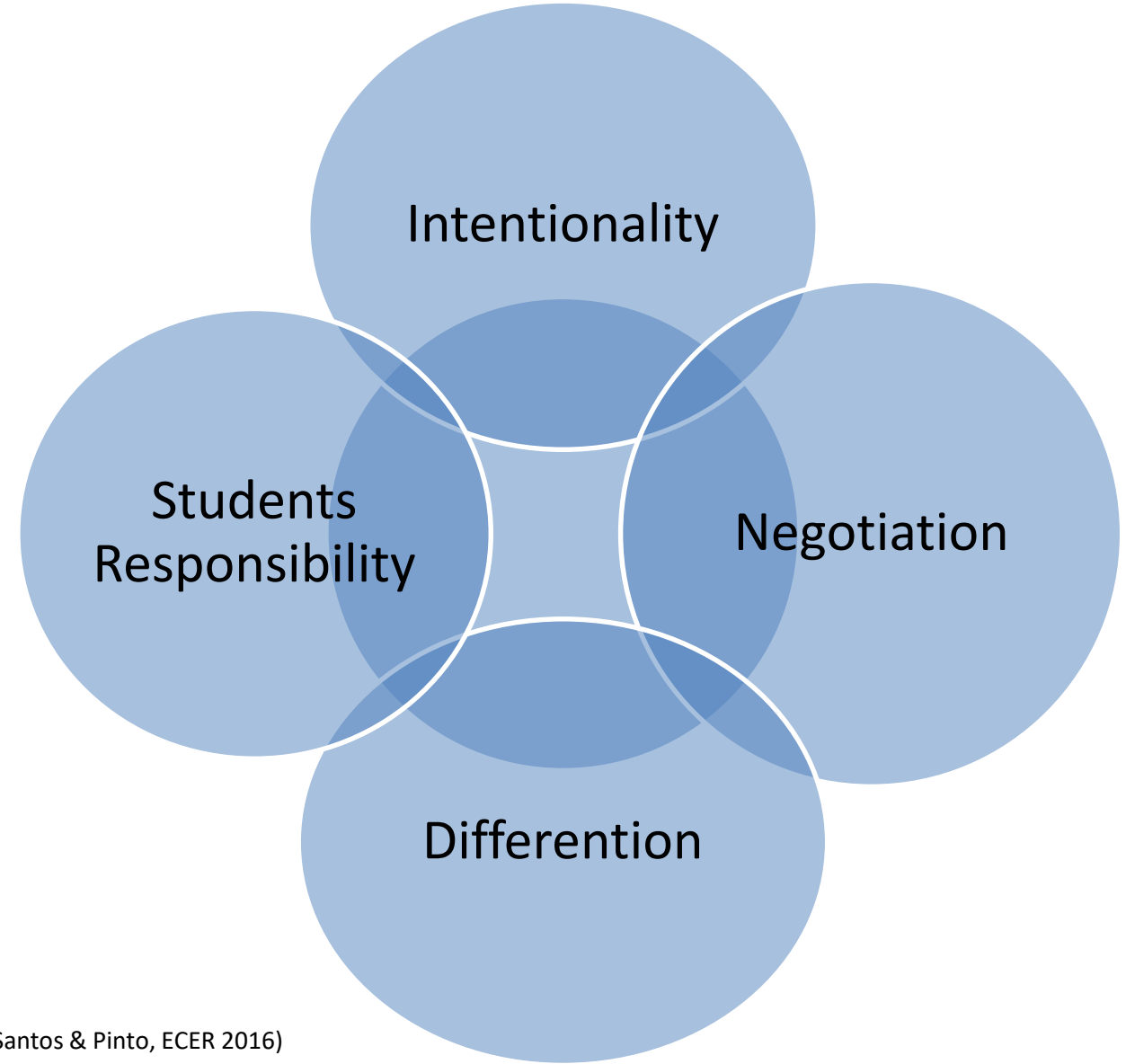
With oral feedback, all the students that had not correct answers did not improved, despite they are able to do it. With written feedback, all students begin to improve the wrong answers.

- To manage differention in the classroom

Some students are performing their work, others students are doing new challenging tasks

(Santos & Pinto, ECER 2016)

Final remarques



(Santos & Pinto, ECER 2016)

Disruption of the established assessment summative culture even in primary school

Development of self-assessment and learning

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