

Challenges in the articulation between summative and formative assessment practices

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It is expected that teachers' practices include summative and formative assessment practices. Institutionally, summative assessment is imposed. The development of a systematic formative assessment is recommended in the curriculum. However, the use of the complex relationship (Bennett, 2011) between these two types of assessment creates tension in teachers (Santos & Pinto, 2014a), leading them to devalue formative assessment as it is confirmed by the OCDE report concerning Portugal (Santiago, Donaldson, Looney, & Nusche, 2012). This situation is even more disturbing if we look at the increase of the importance of summative assessment due to the educational policies strongly dominated by accountability (OECD, 2013), although the relevance of the formative assessments for learning is a consensual assumption nowadays. It is accepted that formative assessment is crucial and demands learner to be in the center of the assessment (Colbert & Cumming, 2014), being the relation to summative assessment still underexplored (Taras, 2005).

There is awareness in the community of the researchers interested in assessment that the articulation between summative and formative assessment is needed. Although a lot of effort has to be made to understand deeply this important issue (Black, 2013; Looney, 2011). In the last years, authors discussed the articulation between these two modes of assessment, presenting different ways to face this problematic. Some authors propose possible scenarios to deal with it (e.g. Harlen, 2006; 2010; Harlen & James, 1997), others consider an impossible or inadequate coexistence between summative and formative assessment (Shepard, 2001; Vial, 2012). From the first group of authors, arguments related with the synergies coming from both modes of assessment may be

obtained by using the same information for the two purposes as well as having the same person responsible for the two assessment processes (Harlen, 2005).

Thus, in the context of a collaborative work, two middle school mathematics teachers (classes of 7th and 8th grade students, 12 and 13 years old) and two researchers (the authors of this communication) have been developing, since last school year, an articulation assessment process (AAP), that includes a cycle of three steps. It begins with a summative moment, represented by a written test, undergoes a formative assessment moment and ends with a summative one. In the formative moment, students develop a set of questions, similar to the ones included in the test, performed outside the class. All students must do this work. Each student has to answer only to the questions that they missed on the test. Depending on student performance, the mark of the first test can be changed. The first year results pointed out that only 63% of the 168 students accomplished the three steps of each cycle during the school year (Santos & Pinto, 2014b). In the present year, a support strategy was added to the AAP to increase not only the number of students involved but also to improve the learning process in the formative moment. This study intends to understand if this articulated assessment process allows the development of an effective formative assessment. We particularly formulated the following research questions:

- Which is the involvement of students in this articulation assessment process?
- Are the students able to improve their performance in the second step?
- Is the support strategy able to accomplish its objective? Which are its potentialities and limits?

Following an interpretive methodological approach (Cohen, Lawrence & Morrison, 2007), this study uses quantitative and qualitative data. In the present year, 119 students (22 from 7th and 97 from 9th grades) of 7 classes are participating. While the 9th grade students have used in the past school year this AAP, for the 7th grade students it is their first time.

The results of the first year evidence that only part of the students accomplished all the cycles of APP. For this group, a large majority considered that this process helps them to learn, which is confirmed by a positive progress from the test to the set of tasks. Although these first results have positive aspects, a special attention has to be given to the students that are not involved in this strategy as well as to those that were not able to evidence learning (Santos & Pinto, 2014b). So, this school year, a support strategy was

developed. For the students that are not participating in the AAP, their mathematics teacher contacted the parents to raise the awareness for the importance of this process for learning. For those who were involved but were not able to show any results the two mathematic teachers developed special workshops to help them to understand how they have to work to take advantage of the formative assessment moment. The prepared materials used as a starting point for these workshops were some mathematical tasks and possible solving strategies with common errors.

The data is collected through documental analysis, observation and interviews. The documents include the students' worksheets from the APP and the teacher's analysis documents of the students' performances. Observation of the workshops implemented by each teacher to support students to profit from the AAP has been developed (audio recorded). Some semi-structured interviews to students are expected to be held still during this school year, in order to understand which are the students' perceptions of this articulated assessment process, the main reasons for their involvement (regular one, irregular or no participation) and the sources they use to help them. The content analysis considers the following domains of analysis: levels of students' involvement and its evolution; levels of students' performance and its evolution. The evolution will consider the moments before and after the workshops. In each domain of analysis, the reasons pointed out by the students to explain their performance and attitudes will also be considered.

The study is still in development. The students had only two cycles until now and the support strategies are in progress. Nevertheless, a first level of analysis allows us to say that the involvement of the 9th grade students is similar with those of the 7th grade (65% in mean). In both cases, the students that do not accomplished the two cycles are in general the ones who have very high or very low marks. One possible explanation is related to the students' conception that associates assessment with a mark ([Santos & Pinto, 2014a](#)). In other words, the students that have low marks have no expectation on their possibility to increase in a significant way, and those who have high marks do not feel necessary to do this additional work.

However, if we compare what happens in each cycle by grade, it is possible to identify a tendency: while the number of the 9th grade students that accomplish all steps of the cycle decreases from the 1st cycle to the 2nd one (69% and 63%, respectively), the number of 7th grade students increases (59% and 68%, respectively). According to the

mathematics teacher of the 7th grade class, some of the students during the development of the first AAP do not feel comfortable using resources to solve their tasks. They felt as if they were cheating.

When we compare the performance of the students between the first and the third step of each cycle, we may say that in the two cycles and for both grades the students were able to improve in a satisfactory way (76% for the 7th grade and 85% for the 9th grade), independently of the quality of the performance in the first step.

No data is yet available concerning the support strategy.

Referências (380 - 400 palavras)

- Bennett, R. (2011). Formative assessment: a critical review. *Assessment in Education: Principles, Policy & Practice*, 18(1), 5-25.
- Black, P. (2013). Formative and summative aspects of assessment: Theoretical and research foundations in the context of pedagogy. In J. McMillan (Ed.), *Sage Handbook of Research on Classroom Assessment* (pp. 167-178). London: SAGE Publications.
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education*. London: Routledge.
- Colbert, P. & Cumming, J. (2014). Enabling all students to learn through assessment. In C. Wyatt-Smith, V. Klenowski, & P. Colbert (Eds.), *Designing Assessment for Quality Learning* (pp. 211- 231). Australian Catholic University: Springer.
- Harlen, W. (2005) Teachers' summative practices and assessment for learning – tensions and synergies, *The Curriculum Journal*, 16(2), 207-223.
- Harlen, W. (2006). On the relationship between assessment for formative and summative purposes. In J. Gardner (Ed.), *Assessment and learning* (pp. 61-80). London: Sage Publications Ltd.
- Harlen, W. (2010). What is quality teacher assessment? In J. Gardner, W. Harlen, L. Hayward & G. Stobart (Eds.), *Developing teacher assessment* (pp. 29-52). London: McGraw-Hill Education, Open University Press.
- Harlen, W. & James, M. (1997). Assessment and learning: differences and relationship between formative and summative assessment. *Assessment in Education*, 4(3), 365-379.
- Looney, J. (2011). Integrating formative and summative assessment: Progress toward a seamless system? OECD Education Working Paper n° 58 (www.oecd.org/edu/workingpapers)

- OECD (2013). *Synergies for better learning. An international perspective on evaluation and assessment*. OECD Reviews of evaluation and assessment in education. Paris: OECD Publishing.
- Santiago, P.; Donaldson, G.; Looney, A., & Nusche, D. (2012). *OECD Reviews of evaluation and assessment in education: Portugal*. OECD (<http://www.oecd.org/edu/evaluationpolicy>)
- Santos, L. & Pinto, J. (2014a). *Changing assessment practices: tensions between individual and institutional*. Communication in the European Conference on Educational Research, ECER 2014, 1st to 5th September, Oporto.
- Santos, L. & Pinto, J. (2014b). *Articulating summative and formative assessment practices*. Communication in the 15th Annual Conference of AEA Europe, 6th-8th November, 2014, Tallin.
- Shepard, L. (2001). The role of classroom assessment in teaching and learning. In V. Richardson (Ed.), *Handbook of research on teaching* (pp. 1066-1101). Washington: American Educational Research Association
- Taras, M. (2005). Assessment - summative and formative - some theoretical reflections. *British Journal of Educational Studies*, 53(4), 466-478.
- Vial, M. (2012). *Se repérer dans les modèles de l'évaluation* [Finding yourself in models of assessment]. Bruxelles: De Boeck.