Teachers' Of the 2nd Cycle Of Basic Education Conceptions Of Formative Assessment

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Abstract

Formative assessment has increasingly become the focus of investigations concerning evaluative practices carried out in the classroom context.

This research aims to characterize conceptions on formative assessment by teachers of two distinct groups: (i) 2nd Cycle of Compulsory Education (K-5,K-6) teachers of Portuguese, History and Geography of Portugal; (ii) 2nd Cycle of Compulsory Education (K-5,K-6) teachers of Mathematics and Natural Sciences. It also aims to identify the main constraints teachers face when implementing formative assessment practices.

The main goals of the study are: i) to characterize the conceptions of the two groups of teachers relating to formative assessment; ii) compare the conceptions of formative assessment between teachers of both groups; iii) identify the constraints these teachers face when conducting formative assessment.

A mixed methodology was employed through the implementation of a survey as the data collection technique. SPSS (version 25) was used to analyse the quantitative data, while NVIVO 10 was used to analyse the qualitative one.

Results show that teachers' conceptions are in accordance to the theoretical framework suggested in the literature. Respondents state that formative assessment is a key element to reorganize and guide both the process of teaching and the process of learning. This assessment is more adjusted to the educational reality and it improves educational success.

1. Introduction

Nowadays, many studies focus the issue of formative assessment. With the continuous proximity of assessment practices towards the constructivist perspective of teaching and learning, formative assessment is becoming ever more important in the students' evaluation process. Thus, studies on this issue are extremely relevant to the scientific community since they may offer important contributions to the teaching practices, by translating into improvements on students' learning and academic success.

1.1 Conceptual definition of evaluation

According to Grillo & Gessinger [1] the concept *evaluation* is continuously undergoing a semantic expansion, thus assuming new dimensions in the field of education. Following the same tradition, Nuño [2] argues that evaluation in education encapsulates a complex range of phenomena, which adapt to social and academic changes, assuming new functions. Therefore, it becomes quite difficult to define evaluation.Evaluation has come to be perceived not as a process to measure the amount of information retained by the student, but as a process that allows to determine the level of proximity between the student's performance and the defined teaching goals.

We can, then, consider that the evaluative act aims to know the student's performance level, compare that information with what is considered important in the teaching process and take action that contributes to achieve the expected goals [3]. This being the case, good evaluation practice helps to better understand a given reality and may contribute to improve it and to transform it [4].

Evaluation is, thus, a continuous and integrating part of the teaching-learning process, which allows the teacher to accompany the student's progress throughout the teaching-learning process [5], with

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the intent of identifying what the student can already do, as well as what the student is still struggling with, in order to find solutions that foster his/her academic success. Evaluation in education is, mostly, related to the communication that is established in the classroom, since it is crucial that information is shared amongst the students and between these and their teacher [4].

1.2 Pedagogical assessment modalities: formative assessment

There are two types of learning evaluation of students: external evaluation and internal evaluation, both concepts are distinguished in the Portuguese context by the Normative Dispatch number 17/2016, from April 5th. Formative assessment is, therefore, a modality integrating the internal evaluation of the students' learning.

Formative assessment is an assessment modality of a continuous and interactive nature, integrating the teaching and learning processes. In this way, formative assessment works on the behalf of learning, not aiming to measure. It is, therefore, according to Fernandes [4], a type of evaluation in which the teacher's main goal is to understand what and how his/her students learn, which means it may also be seen as a pedagogical process that greatly improves the quality of what is taught and how it is learnt.

The practice of formative assessment allows the teacher to identify the students' difficulties in each content and reflect upon their pedagogical action [6], adapting his/her teaching strategies according to the group of students they are aimed at, thus improving the teaching-learning process. In conformity to the previous author, Rosales [7] mentions that formative assessment facilitates the teacher's identification of problems in his/her pedagogical practice, as well as the detection of obstacles and the overcoming of these, perfecting the students' learning process

Since formative assessment assumes a continuous and systematic character, it may alert to the necessity of using a variety of data collecting tools adequate to the diversity of learning outcomes and the circumstances in which they occur, allowing the development of teaching and learning, envisaging the adjustment of processes and strategies. These tools, according to Grego [8], should allow the exercise of two main functions of the formative assessment: the function of diagnosing the student's progress, assessing his/her work and noting strengths and weaknesses that aid student's improvement; and the function of encouraging the student, providing positive feedback that guide the student's cognitive process. In the same way, Farinha [6], supported by the perspectives of Boston (2002), states that it is through this information that it is possible to constantly collect diagnoses to provide feedback to teachers and students about their teaching/learning paths.

2. Methodology

Data was collected through a questionnaire, designed and validated by five experts in pedagogical evaluation with the following objectives:

    I.   Characterize the conceptions of a group of teachers from the 2nd Cycle of Compulsory Education (K-5;K-6) on the goals and procedures of formative assessment;

    II.   Compare the conceptions of teachers of Portuguese/History and Geography of Portugal to those of Mathematics/Natural Sciences;

    III.   Identify the constraints faced by the teachers in their formative assessment practices.

The questionnaire was divided into three main sections: questions pertaining to the respondent's characterization; questions relating to the issue in study; and, a third part, which allows the identification of the main constraints of formative assessment practices. Answers to each item followed a five point Likert scale, as exemplified: 1-Totally Disagree; 2-Partially Disagree; 3-Neither Agree Nor Disagree; 4-Partially Agree; 5-Totally Agree. The questionnaire was answered by 85 teachers from the 2nd Cycle of Compulsory Education (K-5;K-6). The 85 responding teachers were between 22 and 65 years old, and 76,5% of these were female.

In order to compare the conception of teachers from two distinct education fields, only the teachers with training in the fields of Portuguese/History and Geography of Portugal and of the

Mathematics/Natural Sciences one were selected. The distribution of the two groups was nearly equitative, since the sample included respectively 44 and 41 teachers. In terms of academic training, all but two of the respondents had concluded their training in Portugal. When analysing the 85 respondents' level of education, it is possible to ascertain that 68,2% hold a Degree; 18,8% hold a Master's Degree; 7,1% have a specialization; 4,7% hold PhDs and the remaining 1,2% only hold a Bachelor's Degree. The service experience of the teachers averages 20 years.

The questionnaires were analysed with the *SPSS* (version 25), and qualitative data was analysed with NVIVO 10"

3. Results

This section will present and discuss the results of this study, following the structure of the questionnaire.

Generally speaking, the responding teachers agree, conceptually, that formative assessment is a process that ought to be systematic and continuous throughout the year, a result that is in line with the ideas of Arends [9], who states that effective evaluations in the classroom are a continuous and key part of teaching. In what concerns the purpose of formative assessment, the teachers argue that this modality of evaluation aims to diagnose the students' learning difficulties, allowing the teacher to adjust the teaching-learning process to the educational reality. These results are in agreement with Cardoso [10] who defends that formative assessment practices help the teacher understanding what changes he/she should apply so that the student may reach the goal.

In what concerns the involved parties in the evaluative action, the teachers highlight the role of the student, a piece of information that fits with the theoretical assumptions of the formative assessment modality. In order for the evaluative process to be successful, teachers agree that materials supporting the assessment ought to be created, allowing the teacher to collect the necessary information from the student. This information, teachers say, is important to evaluate the teaching strategies used by them. In the same way, Arends [9] reinforces the idea that data collected during formative assessment is used to pass judgment on unit and lesson plans and teaching strategies.

Taking into account the existing relations between variable pairs, it is possible to verify that the higher the teachers' age, teaching service years and level of education, the closer their conceptions are to the theoretical assumptions inherent to the formative assessment modality.

In what concerns the comparison between the conceptions of teachers from the field of Portuguese/History and Geography of Portugal and the teachers from the field of Mathematics/Natural Sciences, data suggests that the teachers belonging to the first field hold conceptions closer to the theoretical constructs of formative assessment in what relates to this modality's goal and pertinence. Notwithstanding, the opposite is verifiable in the conceptions towards the practice of formative assessment modality.

One of the constraints presented by the teachers agrees with the difficulties highlighted by Pinto and Santos [11]: the work overload that formative assessment implies. In conformity to the results, Arends [9].clarifies that a great part of the teachers' time is spent in evaluative processes. Simultaneously, the responding teachers also present class's heterogeneity, number of students per class and the extent of the curriculum as the main constraints to the practice of formative assessment.

4. Conclusion

The results collected, from both responding groups, indicate the need to raise teachers' awareness on the importance of formative assessment practice, in order to guarantee students' success. Only through this, may each student benefit from an evaluation that ought to be fair and that take into account the learning processes, as well as the student's needs. Accordingly, it is essential that teacher training, both initial and continuous, makes wide use of formative assessment in all learning situations.

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