11 - Evaluation and Assessment of Student Learning and Development | Empirical

SP - (16257) - QUALITY ASSESSMENT OF PORTUGUESE SECONDARY EDUCATION BIOLOGY AND GEOLOGY NATIONAL EXAMS

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Short Abstract

In Portugal, the external evaluation of students in secondary education takes place through national exams, which grades have a significant impact on their academic future. The students' results in Biology and Geology national exams have revealed a prevalent and persistent scenario of failure, with very low average scores and excessively high failure rates. In the teachers' opinion, among the main causes of this failure is the complexity of the exam. Thus, this study aimed to analyze the validity and technical quality of these tests in order to understand whether these assessment instruments are contributing negatively to the students' failure. To achieve this, a qualitative investigation was carried out, using documentary analysis through content analysis. Two Biology and Geology exams were analyzed, being the selection criterion the extremes of the students' results (the test with the best results and the test with the worst results), with the following objectives: (1) to analyze the validity and the technical quality of Biology and Geology exams; (2) to determine whether these exams assess the purposes of the subject syllabus; (3) to determine whether these exams assess the achievement of the educational objectives proposed by Bloom's Taxonomy.

It is concluded that the exams are cognitively demanding, since most questions assess higher categories of the cognitive process (application and analysis) of conceptual knowledge.

This investigation demonstrates the lack of validity and reliability of Biology and Geology exams, as well as several technical quality problems.