OBJECTIVE ASSESSMENT OF STUDENTS
WHEN CONDUCTING TESTS IN THE MOODLE SYSTEM

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Testing has long been a part of the educational process, but do we, the teachers, have confidence that the conclusions and analysis of the test results can help to correct the learning process, or, to put it another way, whether the results are objective indicators of the learning and development of our students. The risks associated with the analysis and processing of the test data depend on whether the correct content of the test questions (tasks) is selected, whether the correspondence between the weight of the question, its correctness and incorrectness, and the score (percentage) is always correctly spelled out or distributed, and whether an objective picture of the level of knowledge and skills of the applicants is obtained at the end. In general, there are quite a few issues related to the objectivity of assessment in testing, and they are constantly raised during various educational events and scientific discussions [1, 2]. In this paper, we will focus on the assessment of test tasks offered in the Moodle system and on the extent to which this assessment can be perceived as objective and correct.

Recently, many higher education institutions in Ukraine have been using the Moodle system, a modular object-oriented dynamic learning environment, which is also known as an open learning management system, to organize the educational process in distance learning. One of the versions of this system, namely Moodle 4.3+, when creating multivariate questions, provides for the assessment of “not selected” for incorrect answers and 100% for a correct single-variant answer or total 100% in case of several correct answers [3, p. 50]. At first glance, the above distribution seems to be objective, but in practice it leads to sometimes quite unexpected results.

Let’s consider creating a test question. To do this, select, for example, a multiple-choice question from the proposed types of questions (in any case, whether we want to make a single-choice or multiple-choice question, we must select the “multiple-choice question” button). Next, under the “multiple correct answers” button, for single-choice questions, we must select one correct answer, and for multiple-choice questions, we must select several correct answers. In this case, the total number of answers can be selected as we wish. It is quite natural for a single-choice question, when among all the proposed answer options there is only one correct and the rest are incorrect, to evaluate the correct answer at 100% and all incorrect answers at 0% (or select “not selected”). Although this approach seems quite reasonable, it contains a loophole for those who intend to cheat during the test, since the system does not provide that choosing one answer immediately closes the possibility of choosing another or even all of them. Thus, when answering a question, an applicant can choose all the answers, including, of course, the correct one. Thus, in the end, such an applicant will have a possible maximum of 100% for this question. This situation can be avoided if, for example, the correct answer is given 100%, and each of the remaining n incorrect answers is given (-100/n) % of the solution seems to have been found, although this is a somewhat hasty conclusion, since it cannot be said that everything is so clear, because the cheating student reasonably receives 0%, but at the same time, the student who knows the material and made a mistake (perhaps just in the calculations) receives (-100/n) % (even less than the cheater). However, teachers can reason as follows: the
wrong answer in tests often has a negative weight, so the applicant who failed the task has his \((-100/n)\) %, but the one who cheated, showed some ingenuity, reasonably has a better result for himself, so the main thing in this case is that in general, neither of them coped with the question and the conclusion is the same for both - both have no positive points.

While it was not so difficult to find a way out of this situation for a single-choice question, it is not so easy for multiple-choice questions. Let’s say that for our question there are two possible equally correct answers and 4 incorrect answers. It is logical, based on the previous considerations, to give 50% for each correct answer, and \((-25)\) % for each of the 4 incorrect answers. Thus, an applicant who chooses all the answers offered will end up with 0%. Whereas an applicant who really works on the test task and chooses, for example, one correct and one incorrect answer will end up with 25%. Is this fair? Let’s consider the case where there are three correct and two incorrect answers. By analogy, we can give each correct option 33.3%, and each incorrect option \((-50)\) %. Again, an applicant who mindlessly chooses all the proposed answers will end up with 0%, and an applicant who, based on his or her own knowledge, chooses two correct answers and one incorrect one will receive 16.6% - this situation certainly does not look fair. Under the conditions described above, choosing one correct and one incorrect answer will generally give \((-16.7)\) %, but the applicant knew one answer (we are not talking about those who guess), and even ended up in the red. The above demonstrates that this approach to distributing the correspondence between the weight of correctness and incorrectness of an answer and the corresponding percentage score is not perfect and needs to be improved. It might be useful, for example, to make it possible in the Moodle system for the activity “Test” to choose the number of answers among the proposed ones in such a way that the number of correct answers coincides with the number of correct answers.

Testing, which has rapidly entered the educational space, on the one hand, facilitates the work of teachers to some extent, but on the other hand, it deprives them of the pleasure of being involved in the course of students’ thoughts and does not always provide an objective picture of their level of development and learning.

List of references

