

## ENGLISH VERSION: HOW TO ASSESS THE COMPETENCE OF MEDICAL STUDENTS? WHAT TO ASSESS?\*

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*Trends in higher education will require from lecturers to take a new look at the ways of assessing the competencies acquired by the student. International trends in education have shifted from the traditional method of assessment (that is, the approach with the lecturer in the spotlight) to the modern one (that is, the student-centered approach). The student-centered method of assessment focuses more on what is expected from students in terms of skills at the end of the course, and the teaching process itself is not strictly regulated. Thus, today we face a transition period in higher education, when there is a problem of combining passive teaching methods with an attempt to assess the results of active learning. To solve the problem and to overcome the transition period as soon as possible, it is necessary to clearly define the notion of an "educational goal". The concept of competence includes not only the cognitive and operational-technological component, but also the motivational, ethical, social and behavioral. It also includes the results of learning (for example, the ability to solve clinical problems), a value orientation system and skills. "Assessment" is a broad term that includes quantitative assessment, qualitative assessment and testing. Understanding the links between these concepts is important for lecturers in order to be able to distinguish them and to use them correctly in planning and teaching their courses. Assessment is critical to effective teaching. It is important that assessment is carried out permanently and continuously during the knowledge teaching and learning. Thus, it would provide information about the level of students' understanding. It is also important to plan assessments so that students can monitor their learning strategy and apply the acquired knowledge and skills in practice.*

**Keywords:** assessment, competence, motivation of students, student-centered approach, educational goals

### Introduction

Today's trends in higher education will require lecturers to take a new look at the ways of assessing the competencies acquired by the student. Testing is now used not only for the final control of knowledge, but also for assessing the student during a practical lesson or for monitoring the progress of their self-directed work. Discussions are held about the most effective methods for assessing the competencies acquired by the student. Much attention is paid to discussing the reasons for the low motivation of students to acquiring knowledge and profession. However, the teaching methods, and the very essence of teaching, do not change significantly.

### Main part

The traditional method of assessment has always been focused on the subjective opinion of the lecturer and the assessment of the students' mastering the material that they were given. This approach to assessment places the lecturer in the center of attention. In this case, the description of the course mainly refers to the material that is learnt in the class. Thus, planning and development of the course begins with its content. That is, the lecturer decides what needs to be learnt by students. The lecturer plans classes, the method of teaching, the way of mastering knowledge. At the end of the course, the lecturer assesses what was taught.

This approach was criticized by Gosling and Moon in 2001. [4], due to the fact that the precise definition of the skills that students must master in order for the course to be considered as "passed" is considerably complicated. After the publication of this work, international trends in education have shifted from the traditional method of assessment (that is, the teacher-centered approach) to the modern assessment (that is, the student-centered approach).

The student-centered method of assessment focuses more on what is expected of students in terms of skills at

the end of the course, and the teaching process itself is not strictly regulated. Therefore, this approach is usually considered as a results-based approach. In this case, the planned educational goals are used to point out what students should be able to do at the end of the training period.

Those students, who are consciously trying to master the profession, perfectly understand what theoretical knowledge and practical skills they want to master during their education. We impose on them a lot of things that they never use in their professional lives. Students are offered to study a certain amount of theoretical material prepared in advance by the lecturer. As a result, they do not get the desired depth of knowledge and skills where they need it.

Thus, today we face a transition period in higher education, when there is a problem of combining passive teaching methods with an attempt to assess the results of active learning. The result is usually quite a low score, which further reduces the student's self-esteem and their motivation for learning.

To solve the problem and to overcome the transition period as soon as possible, it is necessary to clearly define the notion of an "educational goal". The literature review provides a lot of similar definitions, which are not significantly different from each other. According to these definitions it is clear that:

- Educational goals focus on what a successful student should be able to do at the end of the course;
- Educational goals focus on what exactly students should acquire in terms of knowledge, skills and / or views when they successfully complete their studies;
- Educational goals are more about the achievements of the student, not the intentions of the lecturer.

For example, a lecturer can state that at the end of the course students will be able to:

- Use algorithms for diagnosing emergency conditions;

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- Organize the work of the medical team, provide immediate assistance to the patient, independently optimize or develop an algorithm for emergency care, based on theoretical knowledge.

Educational goals often represent separate sections of teaching during the course, but everyone can have several subtasks. Educational goals should not be achieved by any special teaching in one lesson; on the contrary, they pass as the main ones through the entire course. For example, a lecturer can ask the students to apply creative skills and effectively work with teams to analyze a complex clinical case and conduct a training consultation. Each of the team members should demonstrate their social and personal competences (the ability to become a leader and take responsibility in a difficult situation, the ability to work in a team, the ability to listen to the opinions of others, the ability to defend one's opinion). This is the essence of the competence approach to learning.

However, the competence approach should not be opposed to the traditional one, based on the skills and knowledge. The concept of competence is broader than the concept of knowledge, or skill, since it includes them on the one hand, but at the same time it is not reducible to them, so it is not a simple sum of estimates. The concept of competence includes not only the cognitive and operational-technological component, but also the motivational, ethical, social and behavioral. It also includes learning outcomes (for example, the ability to solve clinical problems), value orientation system, skills.

Thus, the terms "assessment", "quantitative assessment", "qualitative assessment" and "testing" have completely different meanings, although they are often used as synonyms (Fig. 1).

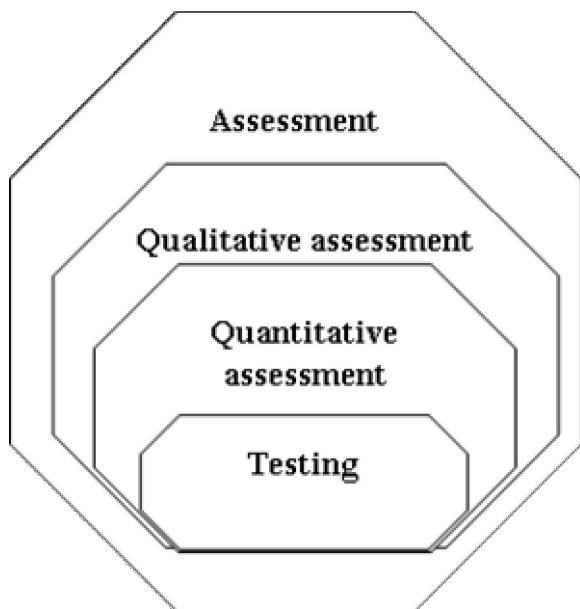


Fig. 1. The link between assessment, qualitative assessment, quantitative assessment and testing.

As stated in the work of Pellegrino, Chudowsky, & Glaser [7], one of the most important roles of assessment is to provide information feedback to students in the process of teaching and learning.

"Assessment" is a broad term that includes qualitative assessment, quantitative assessment and testing. The term is defined as the process of gathering information for decision-making in order to facilitate the process of

teaching and learning. Examples of practical implementation of the assessment include tests, interviews, assessment of practical skills and interviewing. Assessment takes place at different levels using various techniques. For example, at the end of each topic, the lecturer assesses students' understanding of the material they have covered through oral interviews or written test work without prior preparation. One can assess the ability of a student to perform a pre-issued task on the twelfth week of the term. The lecturer can assess the level of knowledge mastered by students with the help of the test at the end of the term.

Assessment methods also differ in complexity. Assessment of the theoretical "memorizing" of classifications or clinical symptoms of the disease is too simple compared to an assessment of the understanding of pathogenesis and the ability to understand the clinical situation. The latter requires a more careful approach to assessment in order to obtain reliable information.

A "quantitative assessment" is the process of assigning numbers. This number is usually called a score, which indicates the degree of mastering the section by the student. To ensure the accuracy of the quantitative assessment, the quality of the test should be at an acceptable level, which is usually determined by the appropriate tools of validity and reliability. Whether quantitative analysis is simple or not, the important point is that the score obtained from a well-conducted quantitative analysis should reflect the student's achievements and abilities. For example, if student 1 is stronger than student 2 in biology, then student 1 should receive a better grade in the biology exam.

In the process of analysis, a value judgment is usually made about the student's learning. It is the basis for the plan of the following actions. For example, when a group of students receives a score of more than 90% in normal anatomy, such students are considered to be exceptionally strong in anatomy. Accordingly, they may be invited to participate in the national anatomy competitions. They can also be instructed to help their friends in improving their knowledge of anatomy.

The deans of faculties often use qualitative analysis. To conduct a good qualitative analysis, the dean needs to determine the actual level of students' achievement. He needs to get assessments in many subjects and a variety of information to make a conclusion about the state of the students' education. This is important, because the value view is subjective. Someone thinks that a score of 90% is enough for a student to take part in a nationwide competition, while others may require a higher score.

Qualitative assessment is not necessarily based on marks. Lecturers often assess the progress of students through systematic observation. For example, lecturers usually assess students' works at a conference without assigning points on any criteria. In this case, lecturers need to combine their knowledge and experience in order to decide on the quality of the work and subsequently make an assessment. In fact, subjectivism and contradictions influence the process of analysis.

In addition to the progress of students, lecturers should give a qualitative assessment of other things, such as curriculum, reviewing, teaching materials and strategic planning. At a time when scores for tests can reduce subjectivism and inconsistency, the knowledge and experience of lecturers still prevail as important aspects of analysis.

A test is simply a tool used for description and understanding a section, while testing can be defined as the processes, methodologies, or practices of applying tests. For example, a poll is a test that describes a section in terms of a group (or sample). Questionnaire for determining the level of students' motivation is another kind of test. A systematic procedure, such as a questionnaire, is also considered a test. During testing, the student's overall score usually comes out of summing up the points earned by the student for each item.

Figure 1 reflects the links between the basic concepts of assessment, which are briefly discussed above. Understanding the links between these concepts is important for lecturers in order to be able to distinguish them and use them correctly in planning and teaching their courses.

### Conclusions

Assessment is critical to effective teaching. Feedback allows students to constantly assess the quality of their learning, especially their level of understanding. Therefore, it is important that assessment is carried out permanently and continuously during the learning process, and thus it would provide information about the level of students' understanding. It is also important to plan assessments so that students can monitor their learning strategy and apply the acquired knowledge and skills in practice.

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