**Module V: Formative assessment as a strategy supporting learner's development and autonomy in the learning process**

Topic 1.1 - Formative assessment and its essence in the teaching process

[https://www.youtube.com/watch?v=wpwZCqvt70U](https://translate.google.com/translate?hl=pl&prev=_t&sl=pl&tl=en&u=https://www.youtube.com/watch%3Fv%3DwpwZCqvt70U)

**FORMATIVE ASSESSMENT AND ITS ESSENCE IN THE TEACHING PROCESS**

Many factors influence a student's learning process. A very important element of this process is presenting results of work, which is often assessed. Assessment in an academic learning setting is, of course, the application of procedures familiar to the student and to the faculty. The educational system is oriented towards checking and assessing the achievement of teaching goals. We can distinguish two main purposes of assessment:

* educational - helps to determine the extent to which the student has met the program requirements
* social - describes the student's development in relation to changes regulated by norms and rules of behaviour at a given educational level

So assessment is an integral part of the teaching and learning process. It can also be said that this is primarily the process of collecting information about the student by the teacher. Actions undertaken by the teacher should serve to promote the development of career of the student, and at the same time, motivating him for further development activities and this is what formative assessment is. Formative assessment is checking the student's progress and confirmation if the issues have been understood by him in such a way as to show him what he can do and what to learn next. Formative assessment is a very effective way of increasing student achievement and formative assessment is at the forefront of the most beneficial teaching interventions by many education professionals. Not without reason it is called parallel "evaluation that helps to learn", and its effectiveness is verified by improvement of learning outcomes, preparation for learning throughout life, and equal educational opportunities. An effective method requires proper preparation and implementation. There are a number of rules that must be followed, in order for the formative assessment process, to be successful.

Well-conducted process of formative assessment:

* Must be linked to good teaching and learning planning. When planning a lesson, the lecturer determines the goals and assessment criteria. It is essential to communicate information to students in an understandable and strict manner. The schema should include:
* what the student did well,
* what needs to be improved,
* how to improve,
* tips on how the student is to develop

* It focuses on the way in which students learn, obtain information from them  about what is helpful for them in learning process and prepares materials considering that information. It would be also important that both teacher and students concentrate on to the process, not only on result itself.
* Plays a vital role in the learning process, ranging from planning to achievement assessment. As a result, students can improve up to date and improve their work , and as a consequence - reaches  better results.
* Corresponds to the best didactical principles. The lecturer plans, observes the learning process, analyses and interprets the information obtained about the course of the process and its results . Then transmits to students information about their work and achievements. An important and indispensable element of effective teaching is also building their self-esteem and passing peer assessment.
* Builds the relationship between the teacher and the student. Comments, assessments and opinions made by the teacher have a huge impact on the student, his self-confidence and enthusiasm for learning, and the teacher must be aware of this. Feedback sent to the student must be individual. Their aim is to constructively convey an evaluation of his work and its results .
* Motivate students to learn. Comparing achievements of individual students with the achievements of their peers is the worst motivator, and thus it often demotivates to further learning. The key is to adopt assessment rules which protects the autonomy of the student and focuses on the progress and achievements, rather than highlights failure of  the student.
* It requires precise definition of the criteria of the intended effect already at the planning stage . The lecturer role is to plan criteria of success, with accuracy to the awarding of each of his academic requirements. The criteria must be given in a language the student understands so that they do not raise any doubts. When assessing the student's work, the teacher should absolutely stick to the previously created criteria. Changing the rules of assessment in the course of its assessment can be extremely demotivating for the student undergoing the assessment.
* Provides opportunities to improve your own work. Formative assessment assumes providing students with constructive tips, how they can improve their work , so as not to interrupt the dynamics of development. Students, despite the fact that they are expected to be independent, require to be guided in the learning process. They need information and tips so they can plan the next step in learning. Lecturer indicating strong sides of a student, should also advise on how to develop them and clearly but quietly inform the student of the weak sides and suggest a way in which those can be eliminated.
* Develops the student 's ability to build self-esteem so that it can serve for self-reflection and the autonomous decision making about the course of their learning. Independent student consciously shape his learning process: gaining knowledge and new skills. By encouraging self-reliance, the teacher helps the student to progress through the development of his own skills until he builds his self-esteem.
* It has its application on all teaching areas at the university. The teacher notes and appreciates the achievements of students and can exploit their potential enabling each of them to reach their maximum capacities.

Being aware of the principles, the teacher is ready to ensure the quality of formative assessment process, which should:

* be linked to planning,
* take into account the individual learning styles of students
* be equally important for the implementer from the beginning to the end of the process - from planning to the final evaluation of achievements,
* be consistent with good teaching and training practices,
* build a relationship between the teacher and the student
* motivate the student,
* precisely define the criteria of goal setting,
* provide students with clues on how they can improve their work and develop further
* teaches peer review and self-assessment
* appear at every stage of the student's education - regardless of their level of achievement.

A well-known school assessment system is not properly used in the teaching process. Its dominant function is grading, or to what extent student learnt knowledge, which blocks feedback – so important for further development. The effect of appropriate feedback will grow with its quality. Students, who receive only the degree do not receive it (feedback) at all. This allows them to see only the result obtained and to look at themselves through the prism of the group and its results and the imposed scale of grades - it has a very poor effect. Information should be accompanied by a message on the application of correct solutions, then the effect is much stronger and more effective. It should also be strengthened by a brief explanation and suggestions on what they should do to improve the score. The highest increase of effectiveness of student assessment was recorded, when a strong formative assessment was used, so:

* information about a correct answers,
* explaining the shortcomings in knowledge and mistakes done due to this
* information which proposes concrete actions, which need to be undertaken to improve the results.

Not every feedback is effective in the same way, but it turns out that formative assessment gives an important added value in the course of science and, therefore, has such a large impact on the quality of decision in the process. Assessment is an integral part of the learning process. Therefore, in order to be able to fulfil its role, that is, above all, motivate to learn, it should include several basic action strategies:

* agreement between the teacher and the student on the learning objectives and assessment criteria,
* to organize activities that help gather evidence that the learning process is active,
* providing appropriate feedback,
* use student activating methods, so they can also learn from each other,
* involving the students in the process as owners of their learning.

So what are the indispensable elements of formative assessment?

Understanding only the importance of using formative assessment and its general characteristics is a good start, but to get a complete picture of it, it's worth introducing its elements into your work. These methods are commonly known to be used in working with pupils or students, and the only secret of their effectiveness is their simultaneous use. The operation of these elements works separately, of course, but in order to be able to extract the greatest value and strength from the described techniques, it is worth using the entire concept in working with the student, while engaging in the work of both parties. The first, fundamental element, of course, will be planning and setting goals. Lecturer - knowing and taking into account the possibilities, or even weaknesses and strengths of the student, will be responsible for setting goals. Of course, it is advisable to discuss the goals set with the student they concern. Such an opportunity to talk and show the commitment of the lecturer will bring results, because the student will be able to recognize whether the goal set for him has been achieved thanks to full understanding. An indispensable element of setting goals is defining criteria for the performance of individual tasks. This component, conventionally called "what I will pay attention to", consists in the fact that the student, based on the acquired skills and knowledge, can recognize that he / she has completed the task correctly or has learned a specific issue satisfactorily. Another key element is effective and strong (according to Dylan's terminology), constructive feedback, also known as an element of formative assessment. In such a message, the lecturer should include information about the tasks that the student has done well, those that still require work, ways in which he can improve them, and a suggestion of the next step enabling the student to develop skills and bring him closer to the set goal. Such information is useful both for the student and the lecturer, who has an insight into the situation, how learning is progressing and what is its dynamics, whether the proposed methods bring specific effects, at what stage is the student. Thanks to this, the lecturer can modify the existing and plan further activities towards the student.

 So what are the features of effective feedback?

* in contrast to ineffective feedback, it provides objective evidence of the progress achieved
* is helpful in assessing the current progress by comparison with the stated goal
* strengthens the actions taken by applying it at the right moment. It is important that the student receives such information as soon as possible so that he does not forget what it might be about
* is communicated as often as possible, thanks to which the student's work is strengthened on an ongoing basis - which increases motivation and adverse actions are corrected
* presented by means of a description to refer to all elements of the student's work as accurately as possible. It is worth noting here that the correct feedback should not contain evaluative statements, but the necessary tips.
* strengthens the independence of the student's actions, who knows the next steps and is able to work without waiting for the assessment of what he has already done or confirmation of the educational results so far.

**FORMATIVE ASSESSMENT VS MOTIVATION**

Formative assessment aims to create good atmosphere among students, which favours the learning process, where competition and ranking are replaced by cooperation and mutual support, but the most important goal of the assessment is to motivate students to learn continuously. The concept of motivation for many years is present in the teaching process in various fields of science. The term is used in different aspects and analysed from many points of view. This issue is also very important in effective management of group development. The most outstanding founders of dynamically operating enterprises emphasize the key role played by a motivated employee who identifies himself with the company, its values and mission. The same concerns teaching. For motivation to be effective, there are many factors that influence it. Therefore, a systemic approach is necessary that will guarantee a full analysis of the dependencies between the requirements and the student. Such an approach must also be open to the dynamics of program changes.

The motivational system serves to achieve goals by persuading the student to take specific actions in line with the core curriculum. It is a skilfully and logically created set of motivational factors. According to Roman Karaś, when creating a motivational system, universal factors must be taken into account, which are the same for each organization and environment in which it functions. As shown in the chart below, these are:

* features of the organization,
* employee characteristics,
* features of the environment.



Chart 2. Motivation system according to Roman Karaś

*Source: R. Karaś, Teorie motywacji w zarządzaniu, Wydawnictwo Akademii Ekonomicznej w Poznaniu, Poznań 2004, s.93*

Motivation theories are very often analysed in professional environments. Their use by the largest corporations proves their effectiveness. The above example is universal and also applies to an academic setting. Following this scheme, the student's motivational system consists of:

* Individual features
* Study profile (field of study, scientific area, requirements imposed on the student)
* Features of the environment

Many variables have an impact on each of these factors, which affect the motivation system. The student's features can be divided into four main groups: demographic, cultural, related to the field of study and his / her cognitive resources. That is why, an appropriate work evaluation must adjust its solutions individually to each student. Additionally, the incentive system should contain separate solutions for different groups of students, depending on their study profile. The life situation also affects the student's attitude to learning, so the ideal motivational system should “keep up” with these changes and adapt to the student's current situation, which of course requires a huge commitment and effort from the teacher .

Motivation systems are focused on activities undertaken by the entity in order to fulfill its needs. The emphasis is not on what triggers a particular behaviour, but on its course itself, on what determines that an individual reacts in a particular way. This approach also helps to understand why, for example, students decide to take certain actions and what role factors such as rewards, penalties, preferences and aspirations play in this. In order to properly lead the student, it is necessary to get to know his needs, the fulfilment of which motivates to action.

John S. Adams in his research on motivation focused on the aspect of justice in the context of rewards received by an individual . In his opinion, the entity making an assessment of the contribution of effort and benefits received in return, in relation to the other. Such a comparison includes four important elements:

* Own contribution, for example: time spent on learning, mental effort, etc.,
* the amount of benefits obtained, i.e. praise, distinction, prestige, scholarship, access to new opportunities, etc.,
* the amount of contribution of the compared person / group,
* the amount of benefits obtained by the compared person / group.

When the student's assessment shows that the work input and benefits obtained by him are not identical to the person being compared, a sense of injustice appears. According to John S. Adams, such a state appears both when, in the student's opinion, he has been overvalued and undervalued. The threshold of sensitivity to undervaluation is much lower than the threshold of sensitivity to re-evaluation of the work input and the benefits resulting from it. The feeling of a lack of justice and an attempt to restore it is, according to John S. Adams, the essence of motivation. In order to restore the desired state, the student may transform the image of injustice through rationalization, or, in the case of undervaluation, use the tactic of reducing the work input or increasing it, when he has a feeling of overcompensation. He can also expect an increase in the received benefits. An attempt to achieve a state of justice can also include a change of reference point, i.e. comparing oneself with other people than before. The unit may also target its activities to other members of the organization, encouraging them to increase or decrease their work input. Providing a clear and transparent rules evaluated and diversity and an explanation of their employees is one of the postulates of John S. Adams, because the situation, in which students do not fully understand, from which derive the benefits received, causes tension and a sense of injustice. Additionally, he drew attention to the diversified value system of individuals requiring the teacher to prepare such an incentive system that allows them to choose benefits that meet their individual needs.

The theory of expectation by Victor H. Vroom, developed in the context of work motivation by Lyman W. Porter and Edward E. Lawler, is considered the most accurate theory by both scientists and practitioners in building a motivational system. According to this theory, the choice of the student's behaviour takes place in three stages, and the motivation to take action depends on the individual assessment of the value of the following three relations:

* effort - performance,
* performance - award,
* reward - satisfaction of needs.

The above three relationships correspond to the three stages of decision making. The probability, in the subjective opinion of an individual, that as a result of the effort made he will complete the task entrusted to him at a satisfactory level, is called " expectation ". Waiting value may lie in the range from 0 to 1, where 0 is the conviction student that is not able, despite the effort incurred, to accomplish his task, and the value of 1 conviction that the full realization of the task. The individual's motivation to perform a task will be the higher, the higher the probability of its completion. The process includes instrumentality which means the probability of receiving the award made to the task. As in the case of waiting, it takes values ​​from 0 to 1, where 1 means you believe that you will receive a reward after completing the task. In case the unit does not see the relationship between the task being performed, and received awards or lack of them, instrumentality value is 0. The final stage of the selection process of action is to assess the attractiveness of gratification provided for a completed task, referred as the “valencia”. It is an attempt to estimate to what extent a given award meets the individual needs of the student. In contrast to previous stages “Valencia” value from -1 to 1. This is due to the fact that the sum of received awards may have a negative value. For example, a student can get a good score and praise, which also involve, for example, isolation from the group. It is also worth emphasizing that according to the theory of expectations, individuals have different needs, and thus the rewards received have a different value in the subjective assessment of each of them.

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