



Co-funded by the
Erasmus+ Programme
of the European Union



Dynamic assessment principles in classroom

Many teachers are interested in finding the ways to help their students to learn, to determine what kind of help children need as learners. Usually, teachers assess and evaluate their student's learning and achievements by collecting data about student's grades, content to be mastered, learning behavior, instructions and interventions which help to maximize student's learning capacity. Standardized testing also provides valuable information for teachers over year and allows teachers to make adjustments in their classrooms too: norm-referenced testing informs teachers how students in their classroom learn in comparison with peers in school, region or all country, a curriculum-based tests help to define the content to be mastered and can provide very important information for further instructions in the lessons. Testing informs teachers what students do or do not know, what they can or can not do, how much students already have learned in comparison with others. Testing also may be useful as a signal when and where students are in trouble and needs further attention, further assessment or possible intervention. It also can provide guidelines for the further learning and teaching. Traditional assessment in classroom and testing are best known and usually used by teachers in their classrooms. Testing can inform teachers „*what*”, „*how much*” student have learned, but does not inform the teacher of the "*how*" or "*why*" student did not succeed, „*why*” and "*how*" the student does or does not learn successfully (Lidz. C.S.)

One of the possibilities can help teachers to answer these questions - dynamic assessment of learning. The need to do assessment is not news to teachers. What is new – is "dynamic assessment" approach and the usefulness of a how this can be done within the classroom” (Lidz. C.S). So, what are the main principles of dynamic assessment, how teachers as assessors can use and apply these principles in the classroom and how they can help every child in the class to learn and to succeed?

The main principles of dynamic assessment

Dynamic approach to the assessment is different from traditional, static, psychometric assessment methods and allows to gather information about learner functioning that is not as explicitly or thoroughly elicited by other approaches. The main characteristic of dynamic approach to assessment- to search for changes and conditions for changes produced during assessment and learning (L.Vygotsky, R.Feuerstein, C. Lidz).

Typically dynamic assessment or "dynamic" model of assessment follows a **pretest-intervene-posttest format**. In *pretest phase* assessors seek to understand what is the present level of performance and what are the recognizable barriers or obstacles to better learning and performance. Once assessor derives an idea of why and where the examinee are experiencing difficulties, the next step is to intervene and try to induce change. This second *intervention phase* of dynamic assessment is the most definitive characteristic of a dynamic approach to assessment and the main aim of the dynamic assessment – to teach and later in post test phase to assess and evaluate the impact of the teaching to the learners.

If we need to know present level of performance we do not need to do dynamic assessment. Standardized tests, observations, school grades can be sources of „present performance” and teachers can predict possible reasons of difficulties or barriers to better students’ learning and better performance. We do assessment in dynamic assessment format if we need: 1) not only make a predictions from the results, but to assess learning in actual, present learning situations; 2) to know not only how much does students know, but how can the students learn; 3) not how well students have learned, but what teaching is needed to enable the student to learn successfully; 4) not only obstacles faced by students, but the possibilities to overcome the obstacles and how these failures can be corrected.

Dynamic assessment allows to assess *how* do the students learn in new situations, *how* and *how much* they can improve their learning and performance, *what* are the obstacles of learning and *how* these obstacles can be reduced. Dynamic assessment approach let us better understand the cognitive processes and learning behavior of the students. This information is important for every students in the classroom and it is critical for teaching students, who have learning difficulties or disabilities. So, how the teachers can use this format and the main principles of assessment in learning process and teaching in the classroom?

The main principles of dynamic assessment approach in classroom

The first steps in **pretest** phase of dynamic assessment – to understand what is **the present level of performance of the students without help and what are the recognizable barriers or obstacles to better learning and performance of the students**. Usually, teachers use standardized testing, observations, school grades as sources of „present performance” and in such way predict possible reasons of difficulties faced by students. Dynamic assessment format let us not just to see „present” situation or results, to predict from results, but at the same time to assess systematically possible reasons for difficulties or obstacles to better learning and performance of the students.

First two main steps of dynamic assessment in classroom teachers can use - **analysis of the tasks and cognitive functioning of the students**. **Analysis of the task** required to assess the task processes or demands the task on cognitive processing required from the learner. So teacher need to assess, evaluate and answer the following, similar task related questions: *What is content of the task?;Is the subject or content of the task familiar or novel to the students? How is the task presented? In which modality (verbal, numerical, figural, auditor, etc.) the task is presented? How complex is the task? How abstract is the task? Which of the main thinking skills (expl. identification, comparison, analysis, categorization, etc). are involved in solving the task? How quickly and how accurately does the task need to be performed?,etc*

Criteria of task analysis for dynamic assessment in classroom can be used in terms of R. Feuerstein’s **Cognitive Map**. The conceptual model Cognitive Map is not „a map” in topographical sense but a tool by which assessors and teachers can locate specific problem areas of the student’s performance and difficulties. Cognitive Map helps to understand „why” and „where” students can have the difficulties.

Analysis of students’ cognitive functioning, learning processes is important to understand why and where certain students experience difficulties with this particular tasks. Prof. R. Feuerstein described **cognitive functions** responsible for learning and thinking processes according to the three major phases of the mental act, namely *input, elaboration and output*. At the input phase information is gathered in order to undertake a task or solve a problem. At elaboration phase information is processed and worked on. In the third step of thinking and learning process- output phase- the answer, solution or product is communicated. So, seeking to understand cognitive

functioning, thinking and learning processes of the students, teachers as assessors seek to understand all phases of student's thinking and learning, how they gathered and used information in the tasks, how did they find and present their solutions.

At input phase, teachers as assessors seek to answer how students gathered information:

Is the student focus attention long enough to perceive relevant details of the task? Is the student focus attention long enough to perceive all data presented in the task? Do the students take time to gather information in systematic way? Are they precise and accurate in gathering information? How students use language and understand various concepts in the task, etc.?

When students start to use gathered information, teacher need to assess and answer: *Are the students be able to see and can define the problem in the task, know what to do, can to define the goal and select relevant cues to meet a particular goal? Do they make connections between objects, events or data in the task? Do they construct and follow a plan in order to achieve goals and solve the task? Do the students can give a logical reason for their view or task solution? Do the students can apply previously learned rules and concepts to new situations and tasks ,etc.?*

And later, in the last phase of thinking or learning, problem solving process, teachers seek to understand and to answer: *If students' expressive language and abilities are to present clear and understandable answers to others ? Did the students were accurate in their answer presentation or maybe students rushed into an answer without carefully considering it first, or randomly guessed answers, become frustrated or just give up, etc?*

For example, teacher noticed, that some students did not learn very important part of the subject. Teacher need to find out what students do not know and why these students did not learn successfully? Teacher could give tasks or test to check the knowledge and present status of performance and learning processes of the students. Very important part of this assessment will be the analysis of task (the requirements of the tasks for the students) and analysis of the test or task results. Firstly, teacher will evaluate student's answers and will try to understand why students succeed or not- maybe some content was not familiar for students or modality of the tasks was less understandable? Maybe students failed to solve task, which required higher level of abstract thinking or failed on very complex task, but can solve separate parts of it? As teacher will find what could cause the difficulties in task or test, later will seek to observe, analyze and try to understand what cognitive processes or functions could be responsible and could be as obstacles in problem solving or learning of the particular students. Maybe, some verbal abilities of the students are not well developed and students did not understand some terms /words in the tasks or subject? Maybe

some students could not find and understand relations between data in the task? Maybe students worked in unplanned and unsystematic way? Or maybe they faced with a problem to present their answer in more understandable way to others?

A very important aspect of a dynamic approach to assessment- the teacher as assessor systematically ask and seek to answer questions, carefully observes and analyzes the performance of the students and constantly asks and evaluates what are they doing, why students experience difficulties in solving particular task, when the students struggles and experiences difficulties, etc.

Intervention phase- search for changes and learning success. Once the teacher derives an idea of why and where the students experience difficulties, the next step is to intervene and try to induce change. L.Vygotsky, R.Feuerstein, C. Lidz characterized this part of assessment as the main part or the main characteristic of dynamic approach to assessment because of search for changes and conditions for changes produced during assessment and learning. In this phase of assessment **teachers as assessors need to choose strategies to overcome their student's difficulties and try to induce change in student's learning.**

For example, if students were impulsive, did not take time to read instructions, did not look carefully, teaching or mediation for impulsivity must be focused on strategies helping to understand the need to gather all precise and accurate information or data. If students fail to define the problem in the task or subject and can't select relevant cues, teacher need to ask the students to describe in their own words how they perceive the problem, explain how to search for relationships between the data in the task or subject. If students found the solution, but could not explain how they achieved his result, teacher should use the strategies which encourage meaningful use of language, help to build necessary vocabulary, etc.

During the intervention phase teacher as assessor also seek **to evaluate the interaction with the students** and answer the following questions related to their teaching: *Did I arouse enough student's interest and motivation? Did I present the task in a way that made it possible for the students to succeed? Did I offer informed praise and encouragement? Did I make the task meaningful and interesting? Did I help the students learn to regulate their own attention and explain the importance of focusing? Did I use the appropriate level of pace/speed? Did I use appropriate level of language/vocabulary? Did I focus the students on important aspects of the task (pointing, labelling, priorities, etc.)? Did I use range of mode including visual, auditory and kinaesthetic methods? Did I provide clear objectives for the lesson or/ and make clear to the*

students what I wanted them to do? Did I discuss relevant strategies and the need to plan and think strategically? Did I use techniques to develop hypothetical or inferential thinking through questioning, testing hypothesis, requesting evidence, etc.? Did I encourage learners to evaluate their own work? Did I help the students to understand the implications of their experience? Did I encourage to transfer what they have learned from one context to another? (Lidz C.)

If students fail to define the problem in the task or subject and can't select relevant cues, teacher need to evaluate if teacher provide clear objectives for the lesson and make clear to the students what teacher wanted them to do. If students were impulsive, did not take time and did not look carefully, teacher need to answer, if teacher's help or learning to regulate their own attention was enough in the classroom and for particular student, if teacher focus enough the students on important aspects of the task, if teachers discuss relevant strategies and the need to work and think systematically ,etc.

Intervention and mediation depends on situation and vary with the tasks, the age of the students. Teacher in intervention phase seek to be „thinking” teacher, to be mediator in learning and teaching processes in classroom and seek to ensure effective and successful learning. Feuerstein's theory of Structural Cognitive Modifiability and Mediated Learning Feuerstein's 12 criteria of mediation or types of interaction could be as guide for teachers and all mediators during the assessment and all learning process in general.

Post test phase – evaluation of the changes in learning.

The main aim of the dynamic assessment – to teach, to mediate and later to assess and evaluate the impact of the teaching, requires a „try it and see” approach and need to following to answer- **how much and what kinds of intervention were required to produce improved performance.**?(Haywood H.c, Lidz. C.S) So, the focus of the assessment at this point is on how the students respond to the interventions. The third **post test** phase during the dynamic assessment in classroom is administered after the intervention phase. This part of assessment is as „evidence” of the student's response to the intervention and student's ability to transfer what was learned during the teaching in the classroom.

In the last phase of the assessment using dynamic approach we need to evaluate not only the impact of mediation, but changes in student's performance too. During dynamic assessment teachers can assess not only the number of mistakes or success, but also the changes in student's cognitive functioning : *do the students started spontaneously to define the problem, to*

correct errors, check of their own work or maybe started to work in more systematic way, to think before responding? Did the teacher assess the increased student's attention span and time on task in readiness to cope with more difficult tasks? Did the teacher noticed less anxiety and fear of failure in student's behaviour? Did the students use the operations, strategies, and principles acquired during the lesson or problem solving or maybe the mediation and learning increase in willingness to defend their own statements on the basis of objective or logical evidence? Did the students are more willing to find examples of bridging spontaneously? (Feuerstein R., Hoffman M).

The main assessment' questions leading to better understanding of learning and teaching processes in classroom- **how many and what kind of intervention were required to produce improved performance? What was the response to intervention? What difference did my intervention make?** (Haywood H.c, Lidz. C.S) Actually the response to intervention can be expected not only from student to student but also according to the type of intervention and it surely makes a difference whether the learner begins at a vary low or high level of competencies in the domains of assessment. And another important question- **how much investment, of what kinds of it, may be required to promote long- term gains in performance?** Answering this question requires collecting data from the all entire dynamic assessment and static tests as well as other sources of information rather than form performance on a single task. (Haywood H.c, Lidz. C.S)

So, dynamic assessment is part of a broader, more comprehensive assessment strategy. The role of dynamic assessment is to find answers to questions that cannot be answered by other method of data gathering, such as standardized testing, interviewing, direct observation or school records. The combination of data derived from dynamic assessment and from other, more traditional procedures can produce insights that are not reached on the basis of any single source of information.

Dynamic assessment approach that has great intuitive appeal for many professional psychologist and teachers and is becoming an increasingly important movement among psychologist and teachers. Teachers using this approach are more likely to ask not „ how can we most appropriately sort and classify children’’, but rather „how do we teach this child’’ (Lidz C.S).

The flexibility of the **test - learn - test** paradigm offers teachers, psychologists and researchers opportunities better understand learning process of the student, learning problems and promising interventions. By using dynamic approach teachers have the possibility to evaluate not only learning of the students, but the impact of their teaching too and how teacher can individualize programs and learning in their classrooms.

References

Lidz C.S. Dynamic Assessment: Thinking Assessment for the Thinking Teacher. Reprinted, with permission and minor editing, from *The Thinking Teacher*, Philadelphia, VIII (3), 3-8. PA, USA1993,

Feuerstein, R., Feuerstein, R. S., Falik, L. & Rand, Y. *The dynamic assessment of cognitive modifiability*. Jerusalem: ICELP Press. 2002.

M.Mentis, M.Dunn- Bernstein, M.Mentis. Foreword by R.Feuerstein. *Mediated learning. Teaching, tasks, and Tools to Unlock cognitive potential*. Second edition, Corwin press, 2008.

Haywood, H. C. & Lidz, C. S. *Dynamic assessment in practice: Clinical and educational applications*. New York: Cambridge University Press. 2007.

Feuerstein. R. Hoffman M. *Micro-changes in child performance*.