# THE INTERACTIVE METHODS AND TECHNIQUES STIMULATING CREATIVITY - CRUCIAL COMPONENTS OF THE DIDACTIC STRATEGIES

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Abstract: The history of pedagogy and psychology has gone through important changes that have led to the delineation of a pedagogical trend known as modernist education. According to this theory, the teaching-learning-evaluation act constitutes a guided, programmed activity, taking place in a stimulating atmosphere, lacking any constraints, by means of an inter-human relation of collaboration, cooperation, communication, evaluation and self-evaluation. The teacher's role in this approach shall be one of coordinator, helping in the birth of ideas. The didactic methods and techniques — components of the didactic strategies — were classified by different authors as follows: teaching-learning — evaluation methods and techniques; knowledge consolidation, systematization and evaluation methods and techniques; group research methods and techniques. We have chosen to present the creativity stimulating methods and techniques, which can be used in the didactic process of music educations.

**Key words:** didactic strategies, imagination, creativity, teaching-learning techniques, cooperation, initiative.

## 1. Interactive didactic strategies (I.D.S.) in the context of modern and post modern education

In time, during the development of the human society, two education systems have emerged, a traditional and a modern one. Modern and postmodern education appeared as an alternative to the traditional education based on learning as a process of knowledge, skills and habits accumulation and storage. So, a theory

emerged according to which the teaching-learning-evaluation act has to be a guided and programmed activity, involving a cognitive and emotional effort, undertaken simply and efficiently. In a pupil/student group, it is necessary to create an atmosphere of collaboration, communication, evaluation and self-evaluation based on the coordination of the common efforts, through a mutual message exchange. For this reason, the organization of the pedagogic act (design,

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application, analysis, appreciation) needs to rely on efficient didactic strategies by which the teachers should facilitate to the pupils/students "the access to knowledge and the development of their intellectual skills, know-how, habits, aptitudes, feelings and emotions, by means of a complex and circular set of methods, techniques, means of education and forms of organization of the complementary activities." [1, p. 8].

In the post-modernist school, the types of strategies tend to diversify, the relation teacher-pupil/student being reconsidered: dialogue and negotiation are seen as leading to an efficient and autonomous learning. The pupil/student decisions concerning the learning options, concerning the way in which the acquired knowledge shall be used and the way in which they shall be assessed. The relation between the group members intensifies and cooperation, mutual help, taking responsibilities, learning from one another shall become factors that will increase the dynamism of the instructive-educative process. The creative teacher shall determine a simulative climate, creating and supporting the pleasure of learning.

The interactive didactic strategies aim to help the child/young man develop in the context of the social interactions favouring the emergence of a cognitive and socio-affective support meant to delineate the individual intellectual and psychological profile and at the same time, to integrate the person in the society.

The didactic strategy is a "complex and circular set of methods, techniques, means of education and forms of organization of the activity, complementary to one another, based on which the professor elaborates a plan for his work with the pupils, in order to attain an efficient learning" [2].

## 2. Classification of the interactive group methods and techniques

A modern and progressive education (Jean Piaget) is one that assures a methodology focused on the combination of the didactic activities related to: learning, independent work, cooperation, group learning and interdependent work. Out of the classifications of the interactive group methods and techniques proposed by prominent personalities of the Romanian pedagogy and psychology, we have chosen the one proposed by Crenguţa Lăcrămioara Oprea, who groups them according to their main didactic function [3].

- 2.1 Group interactive teaching-learning methods and techniques: the method of mutual teaching/learning, Mosaic Method, Comprehensive reading, Waterfall, STAD-the method of teaching in small groups; the method of team-based competition; the method of pair exchange; the pyramid method; the dramatized learning method; heuristic conversation; group debate and discussion; group problem definition; didactic game; case study, etc.
- 2.2 Knowledge consolidation and systematization and alternative interactive verification/evaluation methods and techniques: cognitive/ conceptual map; matrixes; cognitive chains; causes and effects diagram; cobweb; lotus flower technique; ATQ (Answer-Throw the ball-Interrogate) method; lighting cards; individual or/and group portfolio; reflexive diary; case study; investigation, etc.
- **2.3** Problem-solving methods and techniques stimulating creativity: brainstorming; stellar explosion; thinking hats methods; roller coaster; multivaulting; round table; group interview; Philips 6/6; the technique 6/3/5; the

creative controversy; the Frisco method, synectics/the analogy method; the Delphi method etc.

**2.4** Group research method: group research theme or topic; experiment on teams; group portfolio, etc.

We shall focus attention our (selectively) on the methods techniques that could be applied in the domain of our choice - music. The teaching-learning-evaluation methods for music can be found in the configuration of the (global) system of general methods, some of them having a frequency of application higher than others, depending on the specifics of the domain but also on the goal targeted.

## 3. The specific features of the creativity stimulating methods and techniques used in music education

The presentation and the description of the didactic methods that we shall exemplify are to be related to the curricular cycles and/or to the study level.

Out of the methods that can develop the pupils' imagination and creativity, we shall select just a few, namely those based on interactive learning.

3.1 Brainstorming, also called "postponed evaluation", is an interactive method in which the solving of the problem under analysis takes place after some debate, discussion and the presentation of new ideas. Each of the subjects comes up with a new, personal idea, so that as many possible solutions as possible are emitted, and by combining them, one may find the "key" to the solution of the problem under analysis. The Brainstorming method is applicable when solving some issues related to music

language elements (harmony, polyphony, orchestration, forms), in the realization of some music pieces and in their interpretation. The atmosphere of work should be relaxing, allowing for the emission of new, daring ideas, and for a free expression of the imagination, which shall trigger a chain reaction. The method was made known by Alex F. Osborn in 1953 (University of Buffalo, USA) and relies on four rules, according to the scheme: "searching for ideas; postponing the judgement of the ideas; a large ideas; quantity fertile ideas of exchange." [1, p.21-222]

The two moments specific to this method are: idea production, idea evaluation.

Teacher  $\rightarrow$  explaining the problem $\rightarrow$  triggering ideas (idea explosion)  $\rightarrow$  selecting the good ideas $\rightarrow$  evaluation (critical appreciations)  $\rightarrow$  solving the proposed problem.

Fig.1. Hypothetical scheme of the Brainstorming method

**3.2 Stellar explosion** is a method similar to Brainstorming. It stimulates creativity and its specific feature is that it begins from the centre of the concept (problem) and then it moves on, radiating from the centre the multitude of questions (just as in a stellar explosion) leading to the solving of the problem proposed.

In the teaching-learning process, during the music classes, it can be applied in very many cases: history of music, stylistics, music aesthetics, music theory, etc. We shall schematize the way in which this method could be used in music audition (analysis of the elements of music language).

#### Who is the composer?

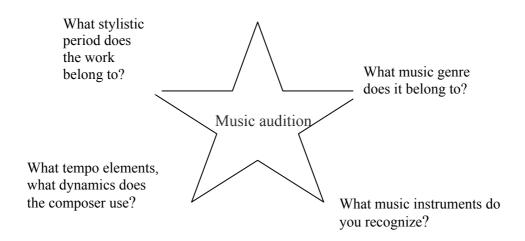


Fig. 2

**3.3.** The Philips 6/6 method consists in making up six groups, which are asked to emit new ideas in six minutes staring from a given topic. It is similar to brainstorming and the 6/3/5 method, its aim being to intensify the creative spirit. The organization of the group consists n in establishing responsibilities (4 members, 1 secretary, 1 group leader who leads the discussions and draws the conclusions.

The advantages of this method consist in the fact that it facilitates communication, the delineation of a large number of ideas in a short period of time; it stimulates the creativity and imagination of all the team members, and also their cooperation and competition. An example of application in music could be the domains of music history, music stylistics, music aesthetics, music theory, etc.

**3.4.** Synectics / the analogy method /the method allowing for idea associations belongs to William J. Gordon, 1961,

professor of Harvard University; the meaning of the word "synectics" is "bringing together diverse elements (*Synecticos*). This method encourages the appearance of new ideas, the modification of some of them and their combination "as a result of the analogy mediated" [2].

The method aims at totally free expression of the participants, at the development of the initiative of expressing original ideas, of associating them and of reuniting elements that apparently are not at all connected. The teacher has the role of encouraging the pupils/students to think in a nonconformist manner while searching for solutions making use of digression. The evaluation of the results will take into account (...) "the future indicators: ideas emitted during the stage of the synectical itinerary, hierarchy of the solutions proposed, experimenting and applying the summative model" [1, p.227].

By means of synectics, the unknown becomes known, the incubation period is covered; it "favours the emergence of new ideas" in relation to the issue under analysis, it focuses on psychological states, on unreal, euphoric feelings, which, in their turn, determine the appearance of new solutions.

Synectics has advantages and disadvantages, just like brainstorming, but the teacher, as coordinator of the discussions needs to be a good psychologist and must possess remarkable empathic qualities.

Synectics may be used during a superior stage of learning, such as higher education or with the older pupils of a music high school.

**3.5. Fragmentation** is a method opposed to Synectics, consisting in the fragmentation into smaller units of a problem that had seemed unitary until then. During the classes of music education, this method may be applied – depending on the level of the class, on the school level (primary, secondary, high school) in the approach of a composer, of a stylistic manner, of a trend in music, etc.

**3.6.** The case study is a method placing the subjects in real situations, representative for solving of other situations or problems. At first, it was applied in medicine, economy, psychology etc, as a research method and later on it was used as well in the education system.

The method has a heuristic and applicative value, its aim being to acquaint the participants with the complex, genuine realities in order to get familiar with these possible situations, develop "operative, optimal decisional capacities, the ability to solve eventual problems" [1, p.228].

In this method, the teacher has a secondary role, triggering the action, mediating possible conflicts, stimulating

an active participation, individually and in groups.

#### 4. Conclusions

The interactive methods and techniques, as didactic function, may be used alternatively during the lesson, if the time budget allows it, so as to stimulate activity and creativity, to create a dynamic and interactive learning environment, based on cooperation. They help develop the investigative spirit and a divergent thinking, allowing the pupil/student to continue his education after the completion of school, in other words, they help the pupil/student "learn how to learn".

In the domain of music education there have been road openers of the modern education system of music education. Personalities such Martenot. as: Montessori, Dalcroze, Wilems, Kabalevski, Kodaly, Orff, Suzuki, Edlund, Gedalge etc. created music education methods based on didactic activities introducing the pupils/students complex situations, meant to stimulate their imagination, creativity, inventiveness [3].

Even though not so rapidly as in other domains, like pedagogy, psychology - instructive - educative system of music education in Romania has gone through significant transformations during the last decennia, their result being truly modern education methods, to which we intend to refer in a future study.

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