

## LIGHTS AND SHADOWS OF THE INVOLVEMENT OF THE SUPERFICIALLY UNDERSTOOD PROCEDURES, IN THE TEACHING-LEARNING PROCESS

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**Abstract:** *The teaching methodology represents a concern of an important number of publications. This paper reiterates the issue from a curriculum point of view and with highlights of manners of implying the methodology of teaching into the nowadays educational and instructional process. A brief presentation of the place and the role of teaching methodology within the learning situation context is the topic of the first part of the paper. The second part details some considerations about classical and modern teaching methodology focused on learning. These are based on more than twenty-five years of teaching-researching activity within the tertiary education level. A special focus is given for the debates on the lights and shadows of the instructional process, a process done with less explicit guidance or even without it. This part is based as well on a brief presentation of what the specialty literature presents. Final considerations stemming from a long term practice in the educational field on all its levels highlight some ideas about the dangerous effects of exclusive methodological approaches in teaching. A personal opinion is presented. The paper intends to debate an important aspect of educational practice: the tendency to work according to what it is fashionable and not genuinely taking into consideration the real aim of the instructional process: developing effective competencies of the representatives of the new generation, aiming to build a more effective future of human society. The day to day reality shows as being really important for the teaching staff to be concerned about the wrong focuses of the new educational practices.*

**Key words:** *methodology of teaching; teaching focused on learning; minimal guidance during instruction; inquiry-based-learning; problem solving based learning.*

### **1. The methodology of teaching as a component of the learning situation**

#### ***1.1. Defining***

The teaching methodology is one of the components of the learning situation, understood as the core element of the curriculum (Niculescu R.M., 2018).

This is a very important structural component as is revealed by the numerous and extended debates, covering the literature of a consistent number of past decades.

The methodology of teaching consists of a set of teaching methods connected to a clear corpus of principles as fundamentals aiming to approach a defined content for being taught to a specific group of students ( belonging not only to a certain level of instruction/ grade but to a specific and defined learning context)

**1.2. Position of the methodology of teaching within the learning situation structure, seen as a systemic functionality**

*A timing aspect and an aspect focused on the interconnection among the structural elements are to be considered when talking about the position and the role of the teaching methodology within the learning situation structure.*

*The expected outcomes (the finalities), expressed nowadays in terms of learners' competencies are the first to be designed because they are milestones into a continuum that builds the human during the ontogenesis process. Each point of this continuum is a final one for the ongoing process of a previous segment and a fundament for the next segment of the ontogenesis process. (Fig.1)*

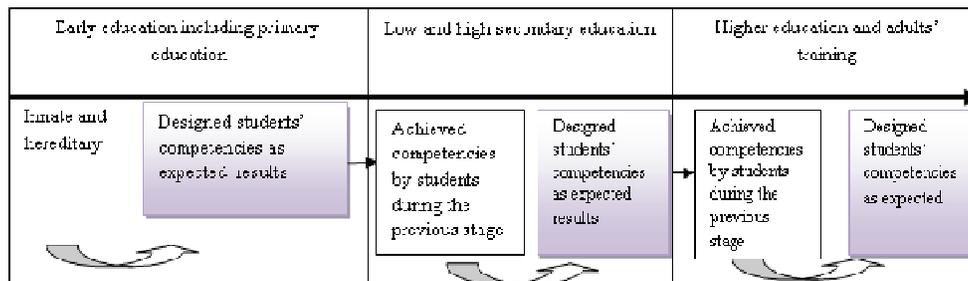


Fig. 1 Evolution of competences as expected outcomes and acquisitions in ontogenesis

The methodology of teaching must be constantly focused on the quality of students' learning not only on the mastery or modernity of methodology itself. This methodology is only one of the main structural components of the learning situation, conceived as the core issue of the curriculum.

The fig. 2 shows the connections between the methodology of teaching focused on learning, with the other main four components of the learning situation and some determinant factors of choosing the adequate methodology of teaching. All these components are systemically connected, meaning that any change at the level of one component has consequences upon all the others.

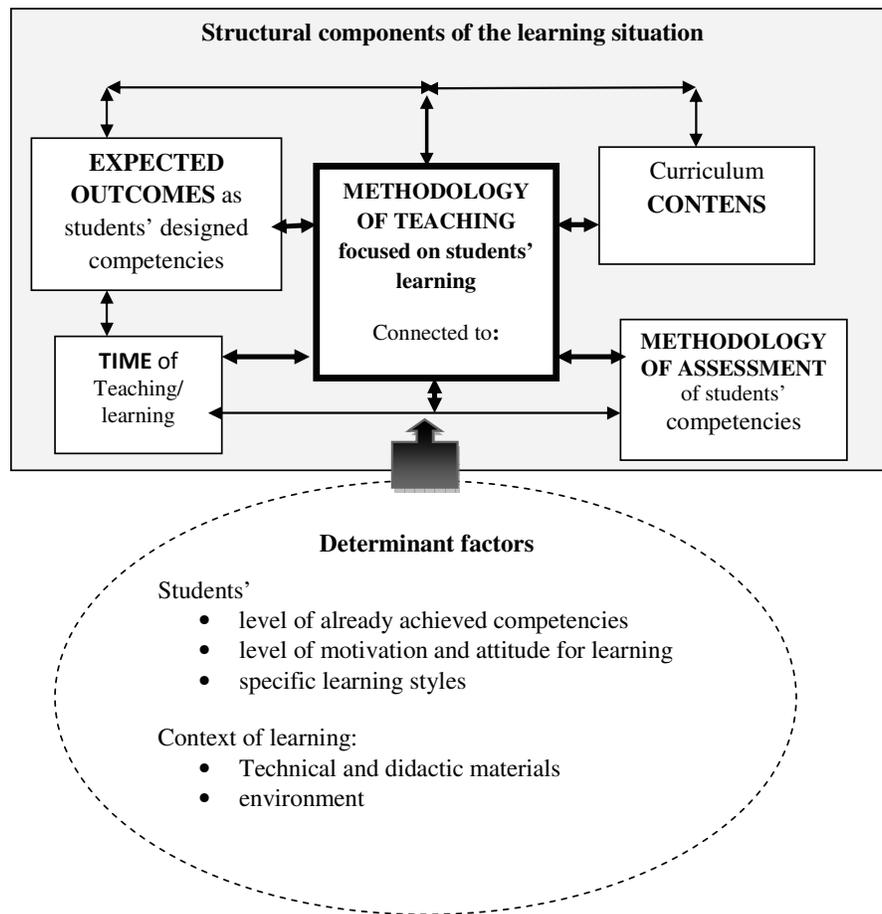
The methodology of teaching is situated in the middle of the figure not because it is the most important but because it represents the focus of this

presentation. First, in terms of time, the process of designing the teaching process starts with the establishment of the expected outcomes (results) of the process targeted by the design of the respective sequence (lesson, unit of learning, set of learning units, etc.).

The contents are, generically speaking are established by the national curriculum and the yearly teaching plan for each curricular area or subject. The specific content, connected intimately to the expected outcomes as finalities, can vary as long as they aim and lead to the development of the established competencies. The limits of variability are established in connection to the students' specificity and the particularity of the learning context. The time of teaching is also somehow predetermined by the national curriculum as a framework. But the particular design of this teaching-time connected to specific contents is also a teacher's responsibility.

The teacher is in charge of the selection of this content taking into account the students' interests, their level of knowledge and other contextual aspects (for example available teaching materials).

The content must be taught with the highest efficiency for a very concrete group of students, with their own level of intellectual, social, and emotional level of development, within a concrete school, with very specific features itself: material, social, psychological. That is why the chosen of the adequate teaching methodology is entirely the teachers' concern and it depends on their commitment to their work, and on their correct understanding of their professional mission. This mission is essentially expressed by the development of appropriate students' competencies for a determined society.



*Fig. 2. The place and the determinants of methodology of teaching within the learning situation context*

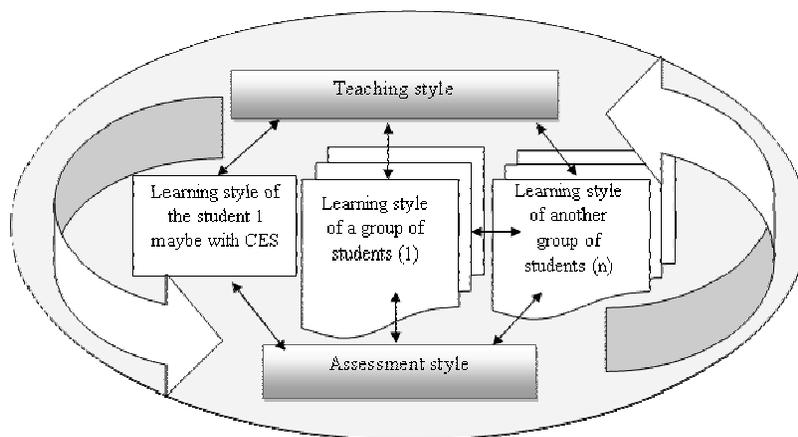
The teaching methodology must entirely connect to the designed methodology of students' competencies assessment. The teaching style must be adequate for the assessment style. For example, a very open teaching style focused on learning by doing, or by inquiring/ discovering cannot be connected to an assessment focused on memorizing without disastrous effects. The vice versa situation is also true: a student cannot cope with a final assessment based on inquiry and creativity as long as all the teaching process was focused only on informing.

Finally, this teaching methodology selected for certain content, addressed to very specific students, leads to the assessment of the level of achievement of the expected outcomes- the designed students' competencies, using designed assessment methodology. Thus, the designing process starts with the design of students expected competencies to be developed, and end with the assessment of the level of these competencies achievement.

### ***1.3. The methodology of teaching - determinant factor of the learning style***

The moment of designing the teaching process, including the choice of the teaching methodology, must be preceded by an in-depth scrutinizing of the concrete students' learning styles.

A new analysis should follow, after the students' assessment. This should be focused on the degree of appropriateness of the selection of the teaching methodology connected to obtain the expected outcomes. The teacher is involved in an ongoing reflective process being constantly focused on the efficiency of the students training.



*Fig. 3. Interconnections among the teachers' learning and assessment styles and the students learning styles*

### ***1.4. The students' learning process in the intersection point of the cognitive, emotional, affective plans***

There is still a hidden, unaccepted but the real misconception about the learning process that would involve only the cognitive aspects. It is true that the main plan is a cognitive one, even if the nature of the behavior involved can belong to other areas (motor, social, etc.). But, no matter to what field the learned behaviors belong, the fuel of the learning process is represented by motivation and emotions. This aspect seems to be underestimated by teachers, even if as a statement they seem to be concerned about it.

The last decades brought a new trend in education a dangerous trend which stresses exactly this necessity to take into account the motivational and emotional aspects but with its shadowed part and with perverse effects.

These two fields, with an important role as fuels, must be managed according to the psychological specificity of each stage of ontogenesis.

The total freedom of the child cannot be considered a sacrosanct rule at the ages when the child is not psychologically capable to manage this freedom.

The early education should stress the freedom of children, in terms of letting them and their educators find out what they like and dislike, what they can at a higher level of performance according to the age and what field asks more effort to be approached; but this does not mean that the rule of the "I do only what I want!" should governate this stage of education.

The kindergarten and the primary school have to develop an instrumental culture for children, but I consider with equal importance, the development of their wish to learn. This is possible only if the educational process uses a methodology of teaching able to develop positive emotion and the intellectual curiosity accompanying the learning process. The main aim must be to prepare future teens for a learning process that involve effort and dedication.

The cognitive development of students should be stressed at the low and high secondary school levels should in order to put strong bases for a genuine general culture. Further, the higher (tertiary) education level aims to strengthen an effective specialty culture. This trajectory is possible only if the cognitive process of learning is accompanied by adequate motivation and will, and it is supported by positive emotions (including the intellectual ones like curiosity for knowing is)

## **2. Classical and modern in teaching methodology focused on learning**

### ***2.1. General considerations***

A great debate is to be found in the literature about how it is suitable to teach. A lot of trends came in waves of fashion, each moment of the last decades, exhibiting strong criticism to the previous ones.

Sometimes, the well known saying according to which "because of the trees the forest is forgotten" seems to rule the field of education. The extreme approaches become "over the night, uncontested queens", and everything else is considered wrong or obsolete. Groups of reformers introduce new methodological approaches, create procedures, and the rest of the teaching staff, too often only for obeying, apply these procedures without an in-depth understanding of what they aim, or what they mean.

An analysis of these trends could cover a number of many pages. But for the reasons for arguing the general idea previously presented, only one of the new trends we'll be put under the scrutinizing process.

### ***2.2. The Minimal Guidance During Instruction with its versions, a new trend. Lights and shadows of not-enough understood procedures***

Nowadays, along the second decade of the third millennium, the educational process implied in the systems of many countries strongly values the so-called inquiry learning or learning focused on problem-solving, etc. all

belonging to the idea of minimal guidance during instruction accompanied by a high level of students' freedom.

This trend appears intimately connected to the curriculum philosophy that strengthens the necessity to develop students' competencies not only to enrich their mind with the knowledge that is perishable per se.

The dynamic of knowledge, which is amazing nowadays, and easy to be perceived by anyone, justify this philosophy. It seems to be obvious that the humans of the future must have the *competence* to keep themselves updated, by being able to be informed (self-informed) promptly, to process information in relation to the task required to be resolved and even to be able to foresee possible unexpected tasks for the future. These cognitive strategies, applied for nowadays problem-solving situations, accompanied by effective cognitive strategies to explore the future there became firm demands of daily life. They cannot be developed during the educational process, and put into practice in real life without the development of the correspondent emotions, motivation, and will of those who learn. The sets of cognitive strategies thus described need strong, specific fuel, which is why emotional development, cognitive feelings, and especially the ability to engage in a voluntary effort become essential.

One of the methodological approaches offered by specialists is that of inquiry-based learning. It implies an open learning process, mastery managed, with the clear aim to determine the development of a high level of critical thinking (Berg, C A R; Bergendahl, V C B; Lundberg, B K S; Tibell, L A E (2003); Jump up to:a b Zion, M.; Sadeh, I. (2007).

Together with a remarkable number of specialists, I stress the idea that the inquiry-based learning implied within the educational practice has determined evident positive effects but it had shadows and side-negative effects. These side-negative effects appear when the use of these types of strategies is done as a set of *procedures* (officially requested or simply on fashion) without an in-depth understanding of its connection to:

- the psychological age of the learners;
- the specific and the place of content within a logical context.

A clear understanding of the educational/formative role of these procedures must be expected and made possible. A pre-training of those who implement procedures appears strictly necessary.

Some supporters of this way of learning stress the idea that open learning shouldn't necessarily be designed targets or definitely expected results. The learners are supposed to be put in the situation to work with given materials in determined circumstances with the aim of helping them to use the information in order to create meanings. Hannafin, M., Land, S., Oliver, K. (1999).

With different nuances this idea is presented by other authors; the presentation of a defined outcome of the inquiry-based learning approach is one of the existing variables with a number of benefits stressed by different authors. (Zion, M.; Sadeh, I. (2007). These benefits, however, depend on the way the teachers are skilled to use the methodology of inquiry-based learning according to the age of the learners, the focus of learning process, the specificity of the content and the place of a given content at the beginning or later in its approach.

In fact, the core issue appears to be the way of understanding the impact of instructional guidance during teaching, which has determined stong disputes for more than at least the past half-century, starting with; Craig, 1956; Mayer, 2004 Ausubel, 1964; Shulman & Keisler, 1966 (quoted by Paul A. Kirschner , John Sweller & Richard E. Clark , 2006). There are presented opinion that the learning process is more productive and efficient in a less or unguided learning situation context.

The learning situations are not conceived with the role to present information to the learners but to offer only essential data with the aim of determining the learners to find/ discover or construct by themselves other important information. This approach “has been called by various names including discovery learning (Anthony, 1973; Bruner, 1961); problem-based learning (PBL; Barrows & Tamblyn, 1980; Schmidt, 1983), inquiry learning (Papert,1980; Rutherford, 1964), experiential learning (Boud, Keogh, & Walker, 1985; Kolb & Fry, 1975), and constructivist learning (Jonassen, 1991; Steffe & Gale, 1995)” all quoted by Paul A. Kirschner , John Sweller & Richard E. Clark , 2006:75.

There are authors that consider as inappropriate the unguided or less guided learning approach, especially but not exclusively for the “ novice learners which should be provided with direct instructional guidance on the concepts and procedures required by a particular discipline and should not be left to discover those procedures by themselves (e.g., Cronbach & Snow, 1977; Klahr & Nigam, 2004; Mayer, 2004; Shulman & Keisler, 1966; Sweller, 2003)” as quoted Paul A. Kirschner , John Sweller & Richard E. Clark , 2006:75.

In their argument, the authors are anchored in human cognitive architecture which cannot be ignored, with special attention for the constructivism and its contribution for supporting the necessity of a less guided learning (e.g., Steffe & Gale, 1995).

Argues and counter-argues are presented by the mentioned material, and research focused on comparing guided and unguided instruction is accompanied by interesting examples and models. All this presentation leads the authors to conclusions that are not favorable to the approaches stated under the principle of proclaiming the superiority of the student's freedom in learning.

In my opinion, it is difficult to adopt or to reject in a very definite way an approach or another.

An effective learning process addresses both to the mind and the soul of the learner. A human is not a computer, a non-human to be pre-loaded with definite

procedures, having even for combining procedures among them with the aim to produce new ones. The humans are humans first of all with up and downs in their development, with a more and more difficult possibility and ability to adapt them to a world with a dynamics like a tornado.

Declaratively, the current educational process in the world is placed under the sign of freedom in learning but understood freedom without any relation to the ages of those who are learners and with their possibility to understand the concept of freedom itself.

It seems to be an erroneous manner to take into account the motivational and emotional components of competencies, both melted into the attitudes with a directional and energizing role for the operational components with a main cognitive substance.

The nowadays context of the instructional process only pretend to take into account these aspects, and this pretending attitude has an extremely negative impact both on learners and their educators.

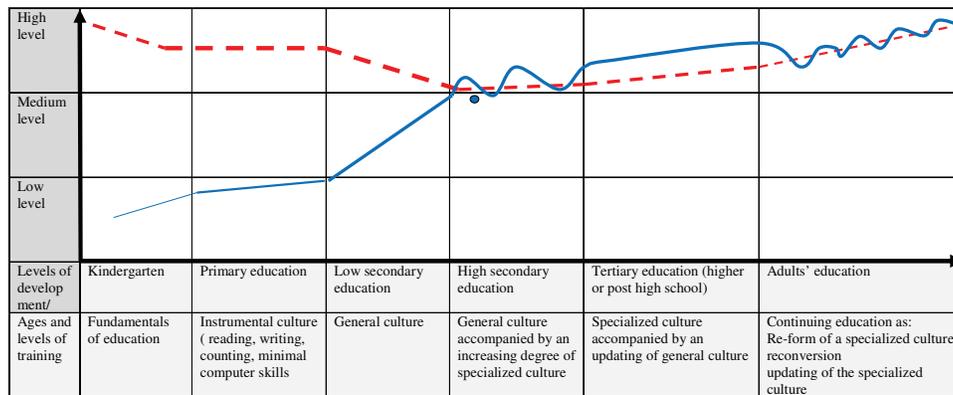
The human mind must develop uniquely at the level of each individual, by maximizing the potential of the individual, by gradually clarifying the path he wants and can follow in life. For this purpose a harmonious interweaving of what the needs of Mind during its development, with what the emotions and the motivation can sustain, becomes tremendously necessary. Only in this way is possible to trigger without reservations the voluntary effort when obstacles appear.

Truth should be emphasized: working according to the fashion in education, the idealization of what is considered modern and the total rejection of what is considered obsolete represent a real danger. The choice in teaching methodology is not determined by fashion or pre-judgments but by what it is to be obtained and by the specific of the learners and of the learning context. The importance is of the result (the final point of the educational trip, no matter what sequence), and not the way and the chosen of a classic or modern vehicle, especially when the driver has not skilled to effective drive it.

#### ***2.4. Final considerations with strong roots in educational practice***

Reflecting on these long and eventually interesting debates, after an entire professional life in education, with direct experience, with teaching and managerial tasks, from pre-school education to adults' education and going through all the intermediate levels, I can present my opinion using the following figure with its brief explanation (Fig. 4). This intends to be an invitation for all the interested readers or practitioners genuine reflection with special focus on their own level of expertise obtained by experience.

Fig. 4 Harmony between the operational and the directional components of competencies



--- Development of emotions, motivation and willingness/ capacity of volunteer effort

— Development of cognitive skills: number and complexity

If one considers two aspects: development of emotions, motivation, and willingness/ capacity of volunteer effort as fundamentals of attitudes towards of learning on one side, and the development of cognitive skills on the other side, it is important to be understood two aspects.

First, the trajectories of the evolution of these two aspects are different and their interconnection is more and more intimate and unique for each person with age even if the humans go through the same system of formal education.

The interconnection of these two components of competencies, as operational elements (cognitive skills, with their fundamentals in knowledge) and directional aspects (attitudes based on motivation, emotion, and willingness) leads step by step to the development of more complex and effective competencies.

Each age develops (by early education in family and by formal education later) what it is necessary to be developed:

- fundamentals of knowing and feeling during the early years
- instrumental culture in pre-school and primary education (consisting of reading, writing, counting, using minimal computer skills, and being motivated, liking and willing to do all these)
- general culture as leading “actor”, with more and more important second actors expressed by the specialized culture during low secondary school and high school; these involve both the operational and attitudinal components of competencies.
- specialized culture on defined and higher degrees in tertiary education level ( higher education or post-high education) with a specific and intimate connection between the two already mentioned components of competencies.

- an interesting development of specialized culture and nuanced development of general culture when the adult works already within a practical field; now another interesting inter-connection can be detected between cognition on one side, and the motivation and emotions, on the other side, both combined in dynamic attitudes.

Thus, for the babies and toddlers, it is important to be stimulated cognitively, emotionally, socially according to their age and their own potential. The maximal stimulation with strong emotional support is the keyword at this age. It is not really important what they learn but there are some knowledge and skills important for their autonomy, interrelation with the others that are to be taken seriously into account. The way of effective communication is a milestone at this age.

The stage of pre-school education should be focused on developing more and more at a high level the emotional, motivational and willingness components, because the age is favorable for, and they will be the adequate fuel for all the future life as learners. The cognitive skills are not, in my opinion, the leading actors at this age; indubitable they must be developed, they have their importance but for cognition to becoming later a leading actor now, it is necessary to try to put Cognition in a secondary role for Oscar .

During the low secondary education, the directional component of competence can low its level of focus from the educational manager point of view (without being neglected at all), while the cognitive operational component will become more and more developed. Their harmony is to be built in high school and tertiary education and it is an intimate and balanced during the adult's education.

It seems to be simple to ensure this dance of coordination between these two components but an effective result needs mastery management from the educational staff side.

The first condition is to manifest a genuine concern for education and its results. These results have a genuine important effect on the future evolution of human society.

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