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# The Strategic Concept of Meritology in Learning

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**Abstract**: This article addresses the issue of meritology as a strategic concept in the theory and practice of the learning process in school. The investigation of this field is generated by the need for the theoretical substantiation of the phenomenon in question, as well as by the deficient practice of capitalizing it in the process of assessing the student's learning activity. Based on constructivist ideals, correlative notions are analyzed, such as those of competition, effort, elite, knowledge, learning internalization, merit, and nano learning. Through analytical synthesis, the cardinal problems of meritology are recorded- the main question being that of clarification. In an innovative sense, the structure of the strategy associated with meritology is outlined, with the clarification necessary to use the concept of meritology as both strategically recorded and topical, shedding light on the specificity of the learning approach. Clarifying the pedagogical significance of meritology is the objective that generates the elaboration of the Strategy associated with meritology. The initial idea is to modernize the learning process by connecting to current social trends. The substantiation of the identity of meritology opens the perspective of the positive impact on the training of students through the internalization of learning and nano learning.

**Keywords:** *Merit; Meritocracy; Meritology; Effort; Knowledge; Elite; Internalization of Knowledge; Nano learning.*

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## Introduction

In the context of educational approaches, trends in social change play a special role, which are relevant and transparent at some point in the decisions, actions, and interactions of most actors in a large space. Identifying these trends is a major challenge due to the relevance of their understanding to the design, planning and direction of change at the educational level. Their importance is enhanced by the possibility that distinguishable change processes, at micro or meso social levels, turn into major trends in educational change. The empirical, sociological analyses show quite clearly that, although we have improved management, when clarifying the relation between social and educational variables, the degree of indeterminacy of the explanations remains quite high (Rusu, 2015).

Among the major trends of social change in interaction and the trends of computerization and change of technology are the following, intrinsic to the educational process: a) decrease in confidence in professional authority as the possibility of information increases; b) the exponential increase of the capacity of collective supervision and, implicitly, of the collective supervision c) the increase of individualization, however, with a decrease of the cultural, scientific and, implicitly, social autonomy of the individuals on the background of the externalization of the memory and the explosion of the information and its accessibility. Public perceptions and stereotypes suggest that many individuals would be less-qualified professionally related to inexperience. If one tries to understand and integrate these perceptions, then it is discovered that this low confidence in professionals, indicates, in fact, a tendency to decrease confidence in expertise.

The importance given by people to expertise tends to decrease with the generalization and increase of the capacity to inform, interrogate, and challenge reflexivity (Rusu, 2015).

In addition to the above mentioned, the sociology of knowledge has a special value, through the conceptions of P. Berger and Th. Luckmann, which analyzes, in detail, the way in which human knowledge is ordered in society (2008), that is, it reflects on the fact that society influences knowledge in general, and school knowledge in particular. From this research emerges the idea of the ability to transcend one's own limited position through the power of thought and personal effort.

As an alternative to social innovation through education, the recognition of individual merit holds the central position. Meritocracy is affirmed as a distributive practice, consistent with social justice, in which the

distribution of all social rewards is proportional to individual merit or contribution to income production (About-Meaning, n.d.). Thus, the meritocratic society of education has chances of success in conditions of consistent and rigorous achievement of equality of chances and educational opportunities, of affirming and selecting talents according to individual performances and merits (Vlăsceanu, 2019).

As A. Marga states, "nowadays, a new departure from the meritocracy that emerged during the years of reform is foreshadowed. In fact, the countries that have reached further are those that have capitalized to a greater extent the merits of people (in fact, the value of people, the opinion of specialists, the performance of each). The others still pay today the costs of wandering among outdated means and will pay as long as they do not leave them" (Marga, 2019, p. 144). When meritocratic criteria are violated, almost everything important in an institution or society is trampled (Marga, 2019, p. 178).

Comparing the rate of evolution of knowledge in today's school learning to the rate of evolution of postmodern society involves transformations with a high degree of complexity. Two such actions are, at first glance, decisive: the theoretical reflection on knowledge and the social trends on which the ability of education to use certain reconfigured models depends, in this case being the Strategy associated with meritology.

## Research Methodology

In order to formulate correctly the current need of the school, in the context highlighted above, we consider it appropriate to discuss meritology in light of knowledge.

For this purpose, qualitative analysis through theorization was applied, in order to inductively generate a theorization of the phenomenon of meritology, performing the progressive and valid conceptualization and relation of the data. This method was used in the form of successive, theorizing construction operations on a corpus of notions and the relationships between them. In addition to this, the heuristic research method was used, which involved reflection and introspective questioning. One of the analysis criteria was that of internal coherence, which refers to the logical and well-founded argumentation that we formulated along the way. This criterion identified the emergence and evolution in the approach to relational phenomena and the elaboration of the Strategy associated with meritology.

In a praxeological aspect, a sequence from a course for the continuous training of teaching staff is being analyzed that relates to school merit in the context of meritology.

## Results and discussions

Comparing the pace of evolution of knowledge in today's school learning to the pace of evolution of postmodern society involves transformations with a high degree of complexity. Two such actions are, at first sight, decisive: the theoretical reflection on knowledge and the social tendencies on which education's ability to use certain reconfigured models depends. Following the evolution of scientific knowledge in the sciences of education, highlights a permanent interest in streamlining the ways of learning, at least at the level of civil society, represented by teachers and knowledge theorists.

Looking for the purposes that lead to the "extraction" of meritology from the sphere of knowledge and its hypostasis as a well-defined principle, we apply to the origin of this initiative the typology of knowledge, as a generating center, as well as we apply the involvement of the outsourcing of memory and knowledge is applied. The argument is that on the same tendency of intertwining the life of the individual with technology, he loses his autonomy because he "loses" his memory; therefore, he no longer actively practices it, and the ability to memorize and structure the information is lost. Cultural and scientific landmarks are either forgotten or not learned, because it is no longer necessary, but also because time has become more stingier in light of the wealth of the available information. Life is generally easier, but memory is less and less challenged and trained. For example, says H. Rusu, one of the explanations for the low success rate of students is the fact that students no longer learn and do not know the multiplication table, do not memorize it (2015). As a result, they no longer have the ability to solve exercises that are based on this mathematical operation. Equally certain is the fact that students no longer know or know less and less the major geographical landmarks: rivers, streams, mountain ranges, cities, etc. and use them less and less for orientation in physical space.

Thus, in order to be able to achieve the objective nominated in the title, it must be considered several fundamental aspects that make the phenomenon of meritology peculiar. The knowledge transmitted in schools is becoming less intelligible and more boring. This shows that technology, on the one hand, facilitates access to information, but at the same time limits the development of *intellectual full scope*. In fact, the decline of memory means

the decline of substantial interactions: people communicate less and less effectively using cultural, scientific, geographical, or historical landmarks, say, if they do not have external "small memories", i.e., phones, that are at hand (Rusu, 2015).

To be more explicit, it must add that, of all the variety of social processes, sociology highlights the main ones: cooperation, competition (rivalry), adaptation, assimilation, amalgamation, this being, in fact, a fundamental specification. At the heart of cooperation is the conscious desire of people to get the most out of common activities. Cooperation presupposes the simultaneous presence of such a manifestation of the social process as competition, which, in turn, refers to the desire to obtain a reward - the meritological aspect - by overcoming rivals pursuing the same goals. The competition is based on the fact that people can never satisfy all their desires. As a result, competitive relations flourish in both abundance and deficit conditions. For a person, competitive relationships start in childhood and last almost a lifetime. The importance of competition in the life of society, in the implementation of social processes lies in the fact that it stimulates individuals to achieve victory through creation (Năstase, 2015).

Integrating with a personal vision the suggestions provided by sociologists, and taking as guarantees some approaches that rehabilitate cognition in learning, it is useful to sketch the lines of force of a newer concept in learning, that of meritology, in a more nuanced perception, more likely to counter the "too simple" picture of the phenomenon in question.

Therefore, a key aspect that can influence the evolution or involution of society is the level of education and instruction of society members, the degree of implementation of the results of scientific research, technological development and innovation, etc. But there is an alternative to save human civilization, but also to progress it and education by establishing *meritocracy* or *meritology*.

Therefore, we have chosen as the field of application and verification of our approach the meritological significance of meritocracy, the essence of which seems to us to illustrate the vision we are trying to identify. It is a well-known fact that meritocracy is a social system based on merit. That is, hierarchical positions are won on the basis of merit, by virtue of talent, education, competence or aptitude specific to a particular position. Meritocratic society usually integrates the concept of intelligence or talent with effort. As such, it is a concept related to the proportional prevalence between the *intellectual capacity* that the individual possesses with the set of activities related to the specifics of the field of activity. With regard to this point, there are opinions of sociologists and researchers that indicate that

meritocracy is an ideology that serves to justify those who occupy privileged positions in relation to those who have not made the necessary effort to possess the knowledge that leads to gain.

Of course, in a newer perspective, there are different types of meritocracies, for example, educational meritology. It is one that values the efforts and trajectory of educational actors. The meritocracy of work, obviously, is the one that value employees who have managed to consistently meet the set goals; meritocracy in a company can be considered the privilege of the trajectory of an employee in the position he exercises, etc. (Callo, 2021, p. 64).

These statements should not expose us to the accusation of conformity, of improper separation of these two notions. This is not the meaning, but the opposite: if we consider the necessary relationship between the components of the phenomenon in question, it can be observed, in an analysis from the proposed perspective, that the fundamental features of each notion only change in specific situations, which can be considered as real moments of changing perception. Although it is a sociological notion, the notion of meritocracy was originally used in the educational context by the German American philosopher H. Arendt in his essay "The Crisis of Education" in 1954. Eminently, the word meritocracy is used today to describe a type of society in which wealth and social position are obtained mainly through competition or through demonstrated talent and competence. The main thing is that a position invested with responsibilities and social prestige must be acquired, not inherited or obtained through arbitrary criteria. Meritocracy means the power of the best, of the excellent (*kratos* in Greek means *power*), it means the sovereignty of merit (Daniels, 1978).

Meritology, in turn, is placed in the series of notions in pedagogy, which indicates the achievement of a personal result based on merit or personal superiority, as I mentioned earlier in another publication. The notion of meritology comes etymologically from the Greek: *meritus - merituos*, which means "due reward" and *logos* - word, idea, meaning, notion. So, meritology presupposes an idea, a logos about merit. Heraclitus called the logos a universal eternal necessity, representing the legitimacy of the discourse on the merit of the individual. Obviously, meritology derives from meritocracy, the founder being M. Young, but the idea of meritocracy comes from Socrates, who formulated the principle of an ideal government - not the one who is born emperor must rule, but the one who has the ability to lead (Callo, 2021).

Difficulties arise when an effective analysis of meritology is done. They are due both to the complexity of the analysis and to a true "brake" mentality, which admits with some reticence the idea of a notional approach. The intellectual effort involves the awakening of spiritual powers, and learning can give the deserving student an elegant humanity. The teacher, as such, "gives" to all the students, according to their ability to use the gift. The effort involves an intense thought process, the power of analysis, generalization, operative and conscious memorization, promptness of remembrance, security, dexterity in actions, self-control and active perceptions. During the effort, "the brain works hard." If we were to mention the meanings of the word effort, we end up finding a rather imposing series of words: diligence, diligence, diligence, ardor, diligence, zeal, diligence, effort, toil, silence, diligence, diligence, perseverance, persecution, acrimony unpreparedness, zeal, coercion, passion, diligence, etc. (Callo, 2021).

From the perspective of meritocracy, says A. Parlagi, the idea of equality of merit on the basis of anthropological equality is false: if we accept such a hypothesis, we must also accept the reciprocal one according to which biological differences justify inequalities of merit, which is absurd. First of all, we must note that biological merits cannot substantiate intellectual, cultural, moral merits; secondly, biological merits cannot explain social, pedagogical merits, etc.; Third, biological merits cannot justify justice or injustice (Parlagi, 2016). In other words, the author states we could say that the merit of the individual consists in the fact that he assigns a meaning to existence or, we would add, that he assigns a meaning to knowledge. Here we start from the premise that existence is a condition for knowledge. However, in the absence of merit assessment criteria, the human being, and therefore the student, can be dominated by uncertainty, which often leads to hostility or intolerance (Dubet, 2000; 2004). In the absence of criteria of merit, the individual has no identity and, as such, cannot have a human attitude (Bell, 1972).

In the area of these ideas, M. Manolecu states that the school is the institution that capitalizes on the potential and personal merits of the students. However, social meritocracy is most often associated with the reward of school merit. The objective dimension of merit is represented by the correlation between the diploma and the social destiny of the individual. In this sense, the notion of merit constitutes a socio-pedagogical object (Manolescu, 2019).

Without going into details, the point of view which considers effort and talent/ intelligence as elements that define the essence of meritology

seems to be crucial. Stimulating learning reasons is a means of maintaining the capacity for effort. In this context, the attitude towards the activity carried out is either a factor of increasing the capacity of effort, if it is positive, or a factor of diminishing this capacity, in case it is negative. From the perspective of intellectual effort, today, the idea of organizing intellectual work in order to regulate the effort triumphs (Primo, 2011).

The dynamics of society have reached a critical point, from which society can no longer evolve, but only involve. In education, says L. Primo there is no strategy for forming values, there is no healthy competition, there is no selection and differentiation between students based on value, there is no value system. Instead, there are all sorts of useless materials, there is no concern for grinding characters, for creating a system of values. When you want to be educated, you have to explain to the student what is good and what is bad, you have to help him learn to discern the good from the bad, to choose not from fear, but from conscience (Primo, 2010).

As can be seen in many sectors, qualifications, professionalism and competence rarely lead to benefits that should come naturally. L. Ieva carefully explores and analyzes the concept of meritocracy, without getting lost in semantics or exaggerations that reduce the discourse to an abstract philosophical reasoning. Remaining on the path of a strict logical chain, he manages to expose complex concepts efficiently and accurately, describing the negative consequences that affect the socio-economic system due to insufficient consideration of merit and highlighting how awareness of the importance of increasing merit determines progress (Ieva, 2018).

By deepening this vision, we can say that meritology retains the function of a structural creator, making the relationship between intelligence and perseverance or effort dependent on it. The domination of the mind, the development of progress determines the main virtue of man within the dominant values, his ability to contribute with his part to the movement forward. The contribution will be great if everything is done by the most capable, the most suitable persons for this purpose. The notion of meritocracy, but also that of meritology, is closely linked to that of productivity and efficiency. Meritocracy is seen as a truly correct system, and meritology as a more correct learning principle. Only those who can achieve higher learning productivity, higher growth, should be on the higher rungs of the school hierarchy. The legitimacy of meritology in society lies in the fact that only the most capable and persevering can achieve the expected success.

Here we would need to add a small commentary on meritology, which is in fact the starting point in the analytical-synthetic action.

Meritology can be understood and performed differently, and in its appreciation must be given more attention as it is characterized in concrete situations. Merit is a relative notion, which depends on what is considered a criterion. Meritology certifies the principle of equality and competence and appreciates the principle of appropriate competition. Meritology, being a theory about *merit* (as form, as matter) and about *deserving* (as content, idea), regulates a relationship between form and content in their common development - *meritologization* (as process). The unity of this notional triad contains the general essence of knowledge. Meritology is a value of our age. The axiology of meritology alleges a system of basic values of postmodernism. It is oriented towards the activation of those values that respond to the elite of the human spirit, dynamizing in them the *vector of constructivism*. Thus, meritology is the elite of knowledge that can create new values, it is the elite of creation. The elite is what absorbs the maximum in itself and accumulates what is most valuable, the best. It is not a sphere of privilege, but a sphere of duty. Therefore, the strategy of meritologization is not simply the development of a meritological quality, but also the balancing of the form (status) and content (quality of cognitive spirit) of a personality.

Achieving a student's cognitive attitude creates prerequisites for translating objects into the ideal-iconic form in which he distributes and gains the status of knowledge. Various types of knowledge are possible as a product of cognitive-spiritual activity.

Depending on the specifics of reality, knowledge is allocated as information about the objective world of nature and society. Each type of knowledge can exist in the form of scientific knowledge. At the same time, knowledge is, in fact, such a type of information about the phenomena studied and the reality processes that must satisfy a series of requirements or criteria of learning or scientific criteria, such as: formal logical coherence of learning/knowledge; with experience and empirical validity; the rational nature of learning/knowledge; intersubjectivity and versatility, etc. It can also be a talk about some criteria of functionality: consistency, completeness, independence of axiomatics, simplicity, aesthetic significance, efficiency of instruments, etc. (Brătianu, 2015).

Since ancient times, there have been conceptual efforts to define knowledge by relating it to the processes of perception and reflection. It was important for ancient philosophers to discover the truth, and the knowledge had to reflect that truth. We get information about ourselves and the world we live in through our senses, but our senses can deceive us. Therefore, the results of the perception process cannot be considered knowledge.

To be objective, the results of the perception process must be analyzed and processed by logical thinking. This means reflection. For Plato, knowledge is the result of the process of reflection and not of perception, because the senses can give us subjective information, which can create illusions. Therefore, knowledge must be based only on reason and not on sensory perceptions that cannot be credible. For Plato, an expression like "2 + 2 = 4" represents knowledge, while an expression like "Grass is green" cannot fall into the category of knowledge, because it represents the result of a process of perception (Flonta, 1994, pp. 28-29).

An additional argument to strengthen this vision is found in the works of the researcher G. Ryle, who approaches knowledge from the perspective of the distinction between *knowing how* and *knowing that*. This distinction is very important for the educational process, because *knowing what* means to know how to do a certain thing (competence), the only proof of having such knowledge being the ability to successfully carry out a certain activity. Proof of *knowing that* is done through verbal activity. In this way, the excellence of the knowledge as the student has is expressed in the quality of his performances, and the soundness of the knowledge that he appreciates himself by the way he exposes, how he speaks, how he answers different questions. This knowledge is appreciated as *the most evolved form of knowledge*, that knowledge which distinguishes the student. It is knowledge that is likely to be not only practically adequate or inadequate, but it is knowledge that can and must be *substantiated or justified* (Flonta, 1994, p. 44).

For example, in everyday life everyone uses, spontaneously or consciously, certain indications and criteria of the foundation for what is believed and affirmed. Everyone learns such indications and criteria for different spheres of life, and the person's *cognitive competence* is assessed by reference to his ability to use them in the most appropriate way (Flonta, 1994, p. 218).

Therefore, the educational institution comes with the task of capitalizing on knowledge as a product of the exercise of skills that are the result of the exercise of certain skills or devices of knowledge. The student has no knowledge, in the true sense of the word, only when he *comprehends (knows)* that he has *knowledge*. Something will represent knowledge for the student only when he is able to present grounds in his favor whenever this is necessary (Flonta, 1994).

Knowledge, says E. Joita (2002) especially from the perspective of education for the future, must be approached as a product of cognitive activity and as a mental process of relationship between its mechanisms, between them and *the real environment*. In the first case, the emphasis is on

behavior and external factors, on receiving information and reactions to it, on the accumulated culture (in the sociological sense). In the second case, the focus is on factors, internal processes of knowledge (representation, understanding, categorization, conceptualization, reasoning, problem solving, decision making, memorization). Currently, both the first and the second approach have an adequate application in school learning through various explanations (Joiţa, 2002).

Cognition develops the formative spiral, explaining and specifying its background, solving the basic problem of narrowing the gap, through active training, between the exponential growth of information, such as volume, complexity, diversity and students' ability to assimilate them on priority qualitative criteria. The cognitive dimension is included in the formative (Pop, 2017).

Through the learning activity the student penetrates beyond things, discovers their meaning, formulates ideas that increase the power of understanding and acting on reality. To value learning means to have a meritological attitude towards reality, and to ignore or minimize learning means to adopt a narrowly pragmatic attitude towards life. A truly rewarding attitude towards learning must be promoted. The reality of such findings is all the more surprising, as even an analytical semantics draws attention to the relevance of pleasure learning. However, the use of the constructivist paradigm as an educational methodology emphasizes the active role of knowledge. According to this paradigm, the mind is active in reception at all levels; there is generally no such thing as non-structuring, certain sensory data that are free to classify. Knowledge in this case is indispensable for creation: there is no clear demarcation between them.

Learning is an active process, and knowledge is built by the student and does not exist outside the mind. Students search for meaning and try to discover regularity and order, even in the absence of complete information. Information can be imposed from the outside, but not knowledge and understanding, it must come from within. It is considered, in this context of reference, that for the 21st century a small school, in which the educational activity can be structured according to the needs and interests of the student, can be more efficient and more competitive, the students being involved in a real intellectual work (Noveanu, 1999).

The educational consequences of cognitive constructivism are very well visualized by E. Joita, who summarizes the opinion of different authors in this regard: learning is active by involving the student in searching, processing, understanding, developing the sense, meanings of knowledge and relationships among them; learning is a mental construction, building of

thinking systems, organizing knowledge into systems; the construction of some senses, of the flexible capacity of adaptation for complex and varied situations is realized through comparisons, reinterpretations, personal reflection, systematizations in new contexts, for new purposes; learning is contextual: the student is in a relationship with what he knows, in what context, what experiences, what relationships, what contradictions; constructivist learning is situational, in order to facilitate the approach to reality, it is a generative one, because superior strategies for solving problems/situations are reached, by building them on the other previous mechanisms; a standardized assessment of the results of constructivist learning cannot be applied, because we are dealing not so much with simple knowledge is dealt with, but especially with skills, abilities, capacities, competencies, which cannot be measured objectively, but can be assessed qualitatively, according to the meritological principle, through value judgments, fulfillment of expectations, quality of hypotheses, transfer possibilities, creative development, success over time, etc. (Joiţa, 2002, pp. 114-115).

According to the theory of postmodern society, the main role belongs to the "elite of knowledge", and the application of the meritological principle without the elite of the whole educational system, without opening the system to all talented, capable and hard-working learners is difficult to achieve. Under these conditions, the elite will mean not so much the social status, but a certain quality of the human spirit. This idea also stems from the basic principles of 21st century society, which is to recreate the prestige of an open elite education.

That being the case, M. Schlick's concept of form-oriented knowledge is based, in M. Flonta's (1994) view, on the clear distinction between the subjective contents of consciousness and statements about relationships that are intersubjectively communicable and testable. Knowledge, in a strict sense of the term, arises only by establishing univocal coordination relationships between sensitive content and formal concepts. Only that which is objective, that is, intersubjectively communicable and testable, can constitute knowledge (Schlick, 2003, p. 20).

C. Brătianu makes a refers in a paper that has received much attention in the literature, (its author is C. J. G. March) and emphasizes the importance of a dynamic balance between the *exploitation* and *exploration* of knowledge. *The exploitation of knowledge* in school would imply the maximum capitalization, through the use and reuse of the knowledge that the student has at a given moment. This means investing in the creation of databases and information, as well as storing as much data, information and knowledge

as possible, as well as stimulating and intensifying their communication (Brătianu, 2015, p. 93).

Thus, examining the respective dichotomy, we must note that the exploitation of knowledge is based on its property that it is not reduced or worn out by use. Exploitation is a strategy adopted especially by teachers who aim to maximize the learning effect by regulating the effort of any kind, including those related to the creation of new knowledge. *Exploring knowledge* means capitalizing on/accumulating new knowledge in performing new tasks, thus contributing to a competitive and meritological advantage. Exploring knowledge presupposes the existence of an investment strategy in students, as well as in the student reward systems they create. Knowledge exploration also means creating a risk-tolerant learning culture that stimulates effective learning. As P. Senge (2016) pointed out, there is a difference between the knowledge needed for standardized learning, which is also called *adaptive knowledge*, and the knowledge needed for competitive advantage, which is also called *generative knowledge* (Brătianu, 2015, p. 94).

While the exploitation of knowledge focuses on rational knowledge, exploration focuses on emotional and spiritual knowledge. Students create when the culture of learning is tolerant of risk, and the school has developed a system of rewarding those who are more creative.

Here we can also mention the four ways of converting knowledge, called the *SECI process:* socialization, externalization, combination, and internalization. Internalization is the process of incorporating explicit knowledge into tacit knowledge. This is an activity through which students can indirectly re-experience the experience of others. In creative learning, these four models of knowledge conversion work in a dynamic interaction, in a kind of knowledge spiral (Giju et al., 2010).

Internalization is a process of processing the information from the outside inside. A student operates with various complex actions, so that an experience is formed, it allows to carry out an objective activity already in the mental operations, without the participation of the objects themselves. The formation of stable structural units of consciousness helps the student to "move" mentally at different times.

Here we can bring an example from the continuous training activity of teaching staff, which aims at school merit. By applying, before valorizing the respective course, a lightning test, it was examined to what extent the teachers know and use the meritological principle in their work. In the given sequence, the items provided for: the identification of the phenomenon (the student's effort); characteristics of this phenomenon; targeted results;

appreciation of the value of the phenomenon; assessing the need for knowledge.

In this context, based on the series of determinations of the phenomenon: reflexive manifestations; adequate intellectual stimulation; voluntary strain of intellectual powers; body request; intellectual reaction to a stimulus; mobilization, concentration and acceleration of intellectual forces; conscious and unconscious self-regulation to overcome a difficulty; change in cognitive state; systematic repetition in different ways, only 32% of the students correctly identified the phenomenon of effort in learning, as a factor of success in reaching the goal. About 44% opted for effort; 13% for perseverance and 11% for diligence.

The second item concerned the characteristics of the effort, the students being asked to select three characteristics (even if for another phenomenon, which they identified), which reveal the essence of that phenomenon: directed, graded, intense, high, systematic, complex, ordered , precise, constant, continuous, metered. Of the students who correctly identified the phenomenon, about 28% opted for all the characteristics, however putting the following three in the foreground: high, intense, systematic.

If we refer to the results, starting from the fact that they were to arrange the words that name them in a descending order, emerging from the identified phenomenon, the variants were different, depending on the identified phenomenon. Those who correctly established the given phenomenon (learning effort), presented a more or less similar variant, of the type: maximum performance; quantitative and qualitative accumulations; competence maintained over time; performing conduct; improving knowledge; valuing cognition.

At the next stage, it was revealed that it is about the effort in learning, the students being asked to select the criteria for assessing the effort in two categories, which 98% of them performed correctly: (a) external assessment: volume, intensity, complexity, duration, density; (b) appreciation from within: desire, conviction, necessity, positive emotion, incentive, aspiration, need, ambition.

And the last item provided for the ticking with "yes" or "no" of the opportunity to capitalize on the information that reveals the specifics of school merit, the meritological principle and that of meritocracy. 87% opted for "yes", which confirms the value of the meritology approach in education, in general, and in learning, in particular.

In this way, based on the ideas above, the strategy associated with meritology appears as a dynamic model, having the characteristics of a

hypothetical-deductive theory which, applied to the educational process, aims, at the same time as identifying a coherent organization, to verify its own premises. In this case, it is a structuring "practice" that depends on the relationship established between the social changes that are currently taking place and the object (meritology) to which it applies. In other words, the phenomenal characteristics of meritology, at the moment, are none other than those deduced from the influences of social change: the internalization of learning and nano-learning. Placing the merits of internalization - nano-learning at the bottom of the scheme, we can only say that these phenomena reappear over time as some can become benchmarks for further modeling, which would reflect subsequent socio-educational changes. These updates and re-views are a "correction" of a possible "learning defect", providing a starting point for further developments.

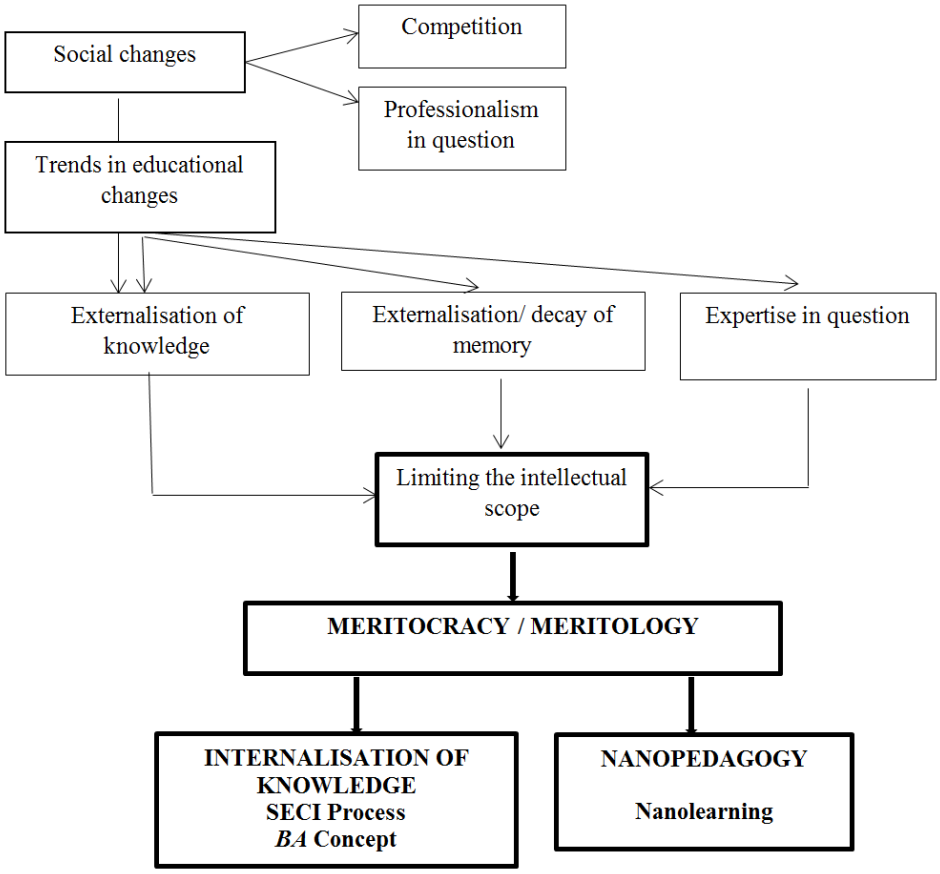



**Figure. 1.** The meritology associated strategy
Source: Author's own conception

Internalization of knowledge, as stated, is the process of transforming the explicit knowledge into tacit knowledge. It is achieved by incorporating explicit knowledge into actions, practices or simulations of concrete learning situations. In this way, the capitalization of explicit knowledge takes place, which initiates the creation of a new set of tacit knowledge that leads to the resumption of the entire cycle of knowledge production. The foundation on which the creation of knowledge is carried out is called *Ba*. The *Ba* concept, being of Japanese origin, can be roughly translated as "place", it is in fact the context in which knowledge is created, shared and used. As a notion, *Ba* is a little close to the idea of physical place, being rather close to the idea of *ideational space*, a space of held knowledge. The *Ba* process is evolving, its limits being permanently redefined by the capitalized knowledge (Neştian, 2007).

Developing the concept of *Ba*, considered that several types of *Ba* can be identified: a) generative *Ba* - the context in which knowledge is created; b) transformative *Ba* - the context in which knowledge is transformed and transferred through dialogues between students; c) integrative *Ba* - the context in which knowledge is combined and synthesized; d) operational *Ba* - the context in which knowledge is applied and incorporated into products, creating values (Brătianu, 2015, p.76)

Internalization is the reverse process of externalization. Explicit knowledge gained as a result of the combining process can be transformed into tacit and integrated knowledge into existing knowledge. "When experiences gained through socialization, externalization, and combination are internalized in individuals' tacit knowledge bases in the form of shared mental models or methods of accomplishing something, they become valuable goods," they are transformed intro personal values (Giju et al., 2010, p. 74). The tacit knowledge gained because of the internalization process becomes available to begin a new SECI cycle and continue the spiral of knowledge. Internalization can be stimulated through a culture of learning. But internalization is not an automatic process of converting explicit knowledge into tacit knowledge, but a process mediated by the motivation to learn and the will to change behavior (Giju et al., 2010).

As for us, it is considered *the Ba concept* as an adequate one for thinking and proving a supple and dialectical relationship between knowledge and the context of its generation, as hypostases of a natural approach, as an intentional movement of the cognitive process.

Today it is no secret that the role of science is growing and the increase of its influence depends directly on the satisfaction of the spiritual-cognitive needs of the human being. In the context of the development of

science and nanotechnology, there is a need for nano pedagogy, which would be a pedagogical correlative of the development of nanotechnology, which could develop new methods and technologies of knowledge, new ways of analysis of nanotechnological educational realities, new pedagogical concepts, taking into account the achievements of nanotechnologies and their level of influence on life; new meritological projects, which would capitalize on new data regarding cognitive-creative personality, a new personalism based on meritological precepts.

Nano pedagogy can be developed as a special direction within the limits of educational sciences and can provide tools to remove expertise from the question mark.

Referring to the "nano" element of nano learning, it refers to learning in *small learning units and in small steps*. In general, the term "nano learning" refers to *micro-aspects* in the context of learning, education and training processes. Nano learning is a relatively new term, whose meaning and aspects are still the subject of research. In the broadest sense, nano-learning can be understood as a technique that refers to micro-aspects of the multitude of models, concepts and learning processes. In all types of learning (e.g., building and organizing knowledge, behavioral changes, changes in beliefs and value systems, cognitive skills and structures, emotional reactions, patterns of social behavior), there are *micro, meso,* and *macro* aspects of sustainable learning. These are referential concepts. For example, in the context of language acquisition, when the vocabulary is learned and sentences, it is likely to refer to the micro-level. Here, is made a distinction between situations and episodes (meso aspects) and complicated sociological and cultural or semantic particularities (macro aspect).

In addition, nano learning marks a shift from traditional learning models to *micro-perspective* learning units and emphasizes the importance of the latter for learning. The nano learning approach is a newly emerging paradigm, which is why there are still not existing precisely formulated definitions or concrete descriptions of applications.

In this frame of reference, it is understood that the goal of the development of nanotechnologies and nano pedagogy is the human being, who is the main subject from a scientific point of view, of this activity. Namely through the humanization of nanotechnologies it can be talked about the meritologization of the educational process. Being practically in correlation with science, in the way of realizing an idea, nanotechnologies are also one of the main ways in which the *anthropological function* of education can be achieved. Nanotechnologies are not only a set of means for realizing the transformative potentials of *learning values*, they are not only a factor of

civilization, but also an *educational value*. Currently, there is an antinomy between economic development and moral underdevelopment, between the technological environment and the table of ideal values, between the unleashed powers of technologies, irrational and antihuman developed politics, and the spiritual force of people, based on reason but encompassing at the same time, a potential for affectivity. The *human-technology* relationship focuses on one of the many contradictions of the postmodern world, including those formulated by pessimistic conceptions, confused about the fate of human in postmodern civilization.

But development of technology is *irreversible* and its critique cannot propose as an alternative an illusory return to the past. The problem is not to go back to the poetry of nature, but to preserve or regain it, if we have really lost it, both by *regenerating the natural environment* against pollution and social scourges that threaten our health and safety of life, and by *regenerating our own nature*, the humanity within us. So, human is not a slave to technology, but technology is in the service of human; it cannot be about the mechanization of human, but about the *humanization of technology*.

However, humanization occupies an important place in the multifaced process of postmodern society, having its sources in a vigorous tradition, approaching on an already established basis. A humanistic oriented activity cannot prepare a student only for the fulfillment of some social or cognitive functions, without taking into account the interests and needs of the student himself. In this context, as a consequence of the current situation, the humanization of education through the use of nanotechnologies can be a key element of new pedagogical thinking that requires reviewing, re-evaluating all the components of the learning process in terms of its human training function. The meritological meaning of nano pedagogy is the development of the student, the appeal to his inner world, his individuality. In other words, from a pedagogical point of view, the phenomenon of humanization means nothing more than the discussing the educational process, whose substantial basis becomes the cognitive activity of students. Objectively determined learning is represented at the level of school discipline by achieving individually determined needs.

Humanism, as a phenomenon of meritology, seeks to promote, through its aspects of egalitarianism and its great social advantages, a type of humanism centered on the power of learning. In this context, the student sees himself more and more considered as an identity and more and more as a human value in the space of a coherent educational universe. He emphasizes his particular "self" within a social-cultural integrity.

## Conclusion

Through the theoretical attempts, to which are added the praxeological ones in various analytical plans, we sought to distinguish what is called meritology and what is its notional specificity. As a result, the idea was reached that the internalization of knowledge is fundamental for the promotion of meritology in school.

All the ideas we have examined above: the social diminution of the role of expertise; low trust in professionals; memory outsourcing; increasing the role of internalized knowledge; competition as desire for reward, meritology as intelligence and effort and as due reward; merit as meaning of knowledge; nano learning as learning in small portions marks the revision of the decoupling of learning in school, which, until now, due to the rigidity of the system, places meritology outside the appreciation of learning.

Opting for the meritological perspective of learning, with special emphasis on the integrative relationship between effort and knowledge, and offering several aspects of analysis, through which the functionality and dimensions of the meritologization project are revealed, the Strategy associated with meritology was developed. Consequently, its insertion into learning is an essential premise in the modernization of the process as such.

In this conclusive context, the strategic premise of meritology, which was revealed along the way, latently contains the possibility to affirm that meritology is a principle that substantiates the learning process, in order to obtain solid and desired results, promoting, simultaneously, the identity of the deserving student at the scale of his intellectual and human powers.

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