# **Reconstruction of Contents by Raported To The Idea of Didactic Transposition**

CUJBĂ Tiberiu-Octavian
"Stefan cel Mare" University Suceava, Romania
E-mail: tiberiucujba@yahoo.com

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#### **Abstract**

In order to contextualize the theme discussed in this article is presented briefly the historical development of educational sciences from the Didactica Magna to Postmodern Didactic, then localized reconstruction of contents in Didactics of specialty between discursive strategy and argumentative performance. Reconstruction of contents by reported to the idea of didactic transposition, the main theme of discussion of this article, is analyzed in relation with didactic speech, which has the role to put into practice in the classroom the idea of didactic transposition. Didactic speech, mediated by computer, is a current reality at the present time, as generalization in the educational process. Reconstruction of contents is placed on the axiomatic background of curriculum paradigms because changing paradigm has the effect of change the architecture of didactic speech to present in classroom the scientific contents reconstructed by didactic transposition. Finally, some conclusions are presented.

**Keywords:** didactic of specialty, didactic speach, reconstruction of contents, didactic transposition

#### 1. Introduction

General pedagogy is a speculative science, because obtained the "epistemic dignity" by fulfilling certain conditions (Cucoş, 2014, p. 445):

- -It has subject to interrogations (phenomenon education);
- -it has investigative tools, methodological type;
- -it has, the principles as the regularities and domain rules;
- -it synthesizes reflections into consistent theories.

We do not believe that pedagogy is an art (only in special cases when the teacher is an artist of the word, writing pedagogy expressive, like literature, (we can say that JJ Rousseau is an artist educator). Those who say that pedagogy is an art, make confusion between education and the science which aims at education – pedagogy (Cucoş, 2014, p. 444). There is and another opinion on this topic (Compayré, 1889, p. ix): Pedagogy and education, like logic and science, or like rhetoric and eloquence are different though analogous things.fulfilling certain conditions.

#### 2. From Didactica Magna to Postmodern Didactic

Although teaching is one of the oldest human activities, pedagogy is relatively recent. She appeared only in the XVII-th century form of principles and rules that streamline the art of teaching and was developed into four historical stages: classical pedagogy, experimental pedagogy, education

sciences and science education. In contemporary pedagogy didactics was interpreted as a "theory of curriculum" or a "general methodology", which includes" all legal principles, rules and procedures applied equally, different training situations". Historically, in parallel with pedagogy, we talk about the traditional didactics (centuryXVII-XIX), the modern didactics (century XIX-XX) and curricular didactics or postmodern didactics (Stanciu, 2003, p. 91).

#### 2.1 Classical pedagogy

Although teaching is one of the oldest human activities, pedagogy is relatively recent. She appeared only in the XVII-th century, in the form of principles and rules to streamline the art of teaching. In the XVII-th century is very important for the development of Western thought. It the century of Galileo, Descartes, Newton and Leibniz, when the foundations of scientific civilization, which will increase the gap between Europe and the rest of the world. Is the moment of birth of baroque and the revival of the classical ideal in the literature (suffice it to mention the myriad of great classical authors of the 1660 and 1685: Corneille, Racine, Moliere, Pascal, Bossuet and La Fontaine). In pedagogy, the XVII-th century is the century of Comenius, Locke, Bacon and Ratke. Without explicitly use the term "pedagogy", these authors were occupied primarily by streamlining methods of school organization and the formulation of general principles of didactic art.în a time of prosperity of science, when all fields transform under influence of rationalism, education can not remain outside the current. Especially since in XVII-th century has greatly increased the number of schools and students (eg. only in Flanders there were over 200 schools) and was founded new educational institutions, first normal school (Reims, 1685). In all probability the word "pedagogy" first appeared in 1495 Robert dictionary. He was subsequently used by Calvin ("L'Institution Chrétienne en 1536") with the purpose of teaching God common to both Christians and for Hebrew. French Academy officially recognized until 1762 this term.

"Didactic Magna" (Comenius, 1657), defines didactic even in presentation pages. The Great Didactic setting forth The Whole Art of Teaching all Things to all Man or A certain Inducement to found such Schools in all the Parisheis, Towns, and Villages of every Christian Kingdom, that the entire Youth of both Sexes, none being exepted, shell Quickly, Pleasantly, Thorougly. Become learned in the sciences, pure in Morals, trained to Piety, and in this manner instructed in all things necessary for the present and for the future life, in which with respect to everything that is suggested. Its Fundamental Principles are set forth from the essential nature of the mater, Its Truth is proved by examples from the several mechanical arts, In Order is cleary set force in years, months, days, and hours, and, finally, An easy and sure Method is shown, by wich is can pleasantly brought into existence. Let the main object, of this our Didactic, be as follows: to seek and to find a method of instruction, by which teachers may teach less, but learners may learn more, by which schools may be the scene of less noise, aversion, and useless labour, but of more leisure, enjoiment, and solid progress; through which the Christian community may have less, darkness, perplexity, and dissension, but on the other hand more light, orderliness, peace, and rest.

#### 2.2 Experimental pedagogy

After political and industrial revolutions of the XVIII-th century, pedagogy is called "science education" and begin to seek scholarly place in the city. Education for training, discipline, culture or education as ditinguished from year, whose chief aim is to share knowledge, defined receives recognition from Kant (Compayré 1889, p. 339). Like so many others generous spirits Mirabeau

(1743-1791) cherished the dream of the most complete liberty of teaching. These searches proved more difficult than hoped, because they extended until today. Although some believe that the XIXth century was "golden century pedagogy" mere proclamation of "science education" was not sufficient. This dissatisfaction is very clear from the famous critical history of pedagogical doctrines boock by Compayré first edition published in 1883, which noted that the same mixture discordant which our contemporaries incriminates whenever relates to pedagogy. From now on, after his divorce from traditional pedagogy (embarrassing for some, because remembered of our origins craft) began a long identity crisis. It is a crisis of uprooting, alienation of failure to adapt. All the time period that followed was a long and exasperating for teaching the fundamentals search: in philosophy, psychology, in their theoretical research or utopia. Experimental pedagogy has long been synonymous with research in education. Using the experimental method, which had proved successful in psychology laboratories, it was hoped to discover scientific laws, irrefutable evidence of the legitimacy of the new science. As can be seen from the following description of pedagogical research field, made by Claparede in the article "Pourquoi les sciences de l'education" (1912), experimental pedagogy was more dependent on psychology. In short, experimental pedagogy had to deal with: the development child's individual psychology student, intellectual and working methods. "Pampaedia" was found by chance in 1935, only on teaching issues. Let's remember that this article Claparede has a special historical significance for our context: he uses for the first time the term "education sciences", but equivocally alternated with science education and experimental pedagogy.

#### 2.3 Educational sciences

Mialaret proposes a wide array of educational sciences, including:

a) Science studying the general and local conditions of the educational institution (history of education; educational sociology; school demographics; economics of education; comparative pedagogy); b) Science studying the relationship pedagogical and educational act itself; c) Sciences studying immediate conditions of the educational act.

Epistemologically speaking, use of plurals science education, we send the distinction between monodisciplinary, multidisciplinary, interdisciplinary. There are three levels of integration:

- -monodisciplinarity refers to independent discipline, taken in isolation;
- -pluridisciplinarity involves several disciplines juxtaposed only working;
- -interdisciplinarity already behaving integrating language as a common axiomatic.

The project unified science of the nineteenth century (Spencer, Willmann, Cellerier, Bain) was monodisciplinary. The project Sciences education, developed between the years 1960 and 1970, led to pluralism referential, but have not passed the stage multi-disciplinary. We are in the last stage of integration the interdisciplinarty, but was identified a new stage of integration called transdisciplinarity.

#### 2.4 Science education

This form is, in terms of terminology, the desire of specialists who want to concentrate all scientific experiments related pedagogical education in a unified form, widely recognized, thus enshrining the status of science, by highlighting two necessary elements: a object of study and its own scientific research method, by which the academic community it can recognize the title of science.

3.Didactic of specialty between discursive strategy and argumentative performance

#### 3.1 Didactic speach

Didactic speech as a means of communication with educational values is located in a specialized field of pedagogy called philosophy of education. Philosophy of education would have the concern query educational process in terms of three parts: existence, knowledge and values. They open three research areas in three regions of the praxis: ontology of education, epistemology of education and respectively axiology of education. Look carefully at the second field can locate didactic speeach because education epistemology is the theoretical field interested in the possibilities and limits of knowledge educational phenomenon, the specific pedagogical research, of the foundation of the explanation pedagogical criteria, of the logical and rhetorical analysis of educational discourse (but also of pedagogy), of the consistency and congruence rules of pedagogical theory etc.; (Cucoş, 2014, p. 447). Schematically, marks the route followed are:

Pedagogy—Philosophy of Education — Epistemology of Education — Didactic Speech Foundation from which derives, philosophical theories of the knowledge is the answer to the first question of the fundamental problem of philosophy: the relation between matter and spirit (consciousness). At this factor of derivation of the concepts the knowledge we add the answer to the second question of the fundamental problem, namely: if the world may or may not be known. This is gnoseology (or, gnosiology), from the Greek *gnōsis* a word for "knowledge". Any philosophy or branch of philosophy concerned either with solving problems about the nature and possibility of knowledge, or with delivering knowledge of ultimate reality especially in so far as this is not available to sense-experience. "Gnoseology" is an archaic term and has been superseded in the former sense by "epistemology" and in the latter sense by "metaphysics".

#### 3.2 Didactic of domain and developments in didactic of specialty

An educational system can be effective only if they relate strictly to a purely rational evaluation without affective valence. Building an own methodology and experience depends on that person (self) built. It is an argument to understand teaching specialty in general without the error hasty generalizations (Eşi, 2010, p.7). From the same author we find that didactic specialty has two dimensions: discoursive strategy and argumentative performance. An analysis of the discursive strategy was carried out along the following lines: 1. Communication and discursive evaluation (with two issues: 1.1 Didactic communication and discursive strategies and 1.2 Specialized language in education advantages and disadvantages) and 2. Significant attitudes on the dicursiveness level (with two aspects: 2.1 Discursivity in the didactic process and 2.2 Discursive paradigms in understanding the didactic process, with concrete examples of projects lessons in philosophy, logic, economics). Argumentative performance was analyzed to see how it is necessary a didactic of the specialty on level of education. The conclusion reached is that an educational system, located between discursive strategies and argumentative performance, can not fully prove efficacy only if the original actors involved in this process engages making a product, which is obtained recovery rules socio- educational on the education methodology level.

New pedagogical in purpose, employ argumentative performance in the teaching strategies Moreover, fundamental sources used, generates an effort to rationalize the teaching field. It is in this fact lies pragmatism of such educational system. Through didactics of specialty education is a field that requires above all of the responsible and performance skills. Follow place and role of disciplinary areas, finally be brought clarification on educational content from authors, occur in the literature: Muşata Bocoş, Sorin Cristea, Mihai Stanciu, Constantin and Dorina Sălăvăstru.

#### 3.3 The principles of modern didactics in connection with discursive strategy

In connection with the didactic speech on the side of discursive strategy it is interesting to recall the principles of modern didactics (Esi and Sabo 2013, p. 75), so that, in the process of didactic communication these principles to be adapted to each specialty, according to the actual didactic situation: Cognitive and metacognitive factors: Principle 1) Learning is an active process voluntarily pleaded personal and social; Principle 2) Subject engaged in the act of learning aims to create interpretations and configurations.concrete in the area knowledge gained regardless of the quantity and quality of available data; Principle 3) The construction of knowledge, the new cognivive structures is achieved through integration prior knowledge; Principle 4) Learning is significantly favored by the use of strongly structured strategies. Affective-motivational factors: Principle 5) The influence of motivation on learning; Principle 6) The role of intrinsic motivation. Principle 7) The main function of motivation is to support the learning effort. Factors of personality development: Principle 8) Opportunities and constraints in education. Personal and social factors: Principle 9) Social and cultural diversity, flexible thinking, social competence and moral development; Principle 10) Social acceptance, self-esteem image and learning. Individual differences: Principle 11) Learning becomes more productive if observed differences individual and cultural; Principle 12) Learning is accompanied by certain social cognitive filters.

This will take account of the psychogenetic piagerian constructivism, of the theory development in stages of the concepts and mental operations after JP Galperin.and paradigm formal/informal of environmental education.

#### 3.4 New paradigms in relation with the argumentative performance

Didactic speech, on the side of argumentative performance, is influenced by the teaching innovation and new paradigms in education reality. Epistemological analysis of the concept of didactic and thus the general didactic and didactic of specialty send to a reassessment of a scientific nature. Didactic (general/specialty) become effective extent that it relates to educational realities and has a positive feedback.

New paradigms have appeared since the legitimacy problem of knowledge requires a consistent relationship between society and education, the importance of novelty in a new paradigm. Context new values (new educations) refers to axiology. Correspondence shall be addressed sociol-methodological, scientific interpretations on didacic epistemological limits of educational paradigms. Currently, educational paradigms are: the paradigm of monodisciplinarity, the paradigm of multidisciplinarity, the paradigm of interdisciplinarity the paradigm of transdisciplinarity. These paradigms have effect in education formal, non-formal and informal. Didactic communication and didactic speech adapts to student-centered strategies or teacher-centered strategies. We present some aspects regarding the use of argumentative didactic speech in the learning process:

- 1. Sentences vague and ambiguous sentences: "Students from the Faculty of Food Engineering like cakes/tortures" ("Studenților de la Facultatea de inginerie alimentară le plac torturile"). Interpretation of linguistic accent on o or u available in romanian language.
- 2. Objective and subjective sentences. Objetiv sentences are scientific sentences (example: Theorem of Pythagora) Eample of subjective senteces: "When the Incas were driven out of Romania"
- 3. Interrogative sentences and moral-programmatic sentences (examle: "It is not good to copy at exam" or "I have to be fair when assessing").
- 4., Compound sentences and categorical sentences (example for categorical sentences: "No teacher is not bad.").

When it is argued must built an arguement whose conclusion must be the sentence for which it is argued. When contra-argued must built a contra-arguement whose conclusion must be the contradictory sentence that wants to deny (reject) (Esi and Sabo, 2013, pp. 24-59).

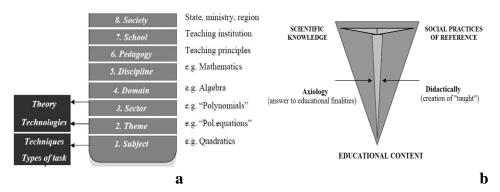
- a) Premise indicators: because, as, since, for.
- b) Conclusion indicators: therefore, thus, resulting, in conclusion, hence, then consequently.
- c) Connecting words (in addition, from the fact that, on the one hand and on the other hand, the first, second, while also, unlike X, in agreement Y, we can say that the first argument, a second argument that you bring).

Several issues related to the role of thought principles in didactic speech and language errors:

- 1) The principle of identity: every object is identical with itself at the same time under the same report. Gives thinking clarity and precision.
- 2) The principle of non-concordance: two contradictory sentences can not be (at the same time and under the same report) both true. Gives thinking coherence, consistency and the ability to distinguish truth
- 3) The principle of third parties excluded: two contradictory sentences can not be (at the same time and under the same report) untrue. Gives thinking coherence, capacity decision making rigorous.
- 4) The principle of sufficient reason: to accept or reject a sentence should have sufficient reason (satisfactory basis). Gives thought coherence based on the argumentation, foundation reasoning

## **4.**Reconstruction of contents by reported to the idea of didactic transposition **4.1** Didactic transposition

In the Fig. 1 a *Pedagogy* (Teaching principles) is placed on the 6<sup>th</sup> level over of *Discipline* (e.g. Mathematics) placed on the 5<sup>th</sup> level. Extending exemplification, physics, chemistry and other sciences are established with mathematics on the level of disciplines. It is, and the place of the didactic, on the 5<sup>th</sup> level, togheter with *Discipline* (e.g. Mathematics), in the scheme of Chevallard.



**Figure 1.** Didactic transposition: a) Levels of didactic co-determination as proposed by Chevallard (2002), related to the components of (mathematical) organizations (Winslow, 2010, p. 14); b) Scheme of didactic transposition (M. Develay, 1992 apud Gheordunescu, 2010, p. 6)

Inside of pedagogy we find didactic transposition by using the following scheme: Pedagogy—Theory and methodology of curriculum—Curriculum contents—Didactic transposition

The aim of didactic transposition theory is to study the factors that make school mathematics different from research mathematics. After giving a brief account of it, we study the main issues that have been debated since the theory's existence: the definition of such notions as school knowledge and noosphere, the means of studying and defining "taught knowledge" accurately, the theory's field of application, the possibility of discovering working rules for the educational system which might limit the ability to act on this system. Then, particular phenomena which appear when applying this theory to the teaching of physics are considered. Lastly we set out the most recent developments of this theory, which allows a more general debate on the questions of transformation and transfer of knowledge in society (Arsac, 1992, p. 107).

Through his study of the historic developments of the notion of *distance* in the XX-th century mathematics, and the attempts to accommodate it in various domains of school mathematics, Chevallard exhibits the two basic steps of the didactics transposition, which have since become known as *external* and *internal* didactic transposition (see fig. 2).

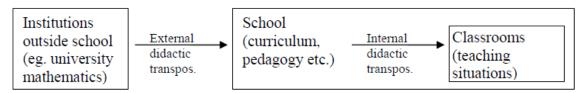


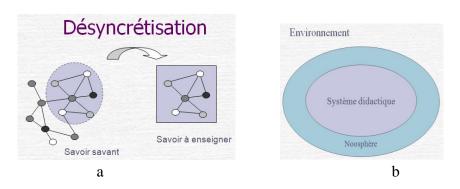
Figure 2. External and internal didactic transposition (Winslow, 2010, p. 5)

External didactic transposition, from scientific knowledge to school knowledge, is achieved by resetting on the five coordinates, nominated by Verret in 1975, while studying a sociological phenomenon that extends beyond school and they are the following: 1) *desincertization* (see fig.3a), 2) *deepersomalization*, 3) *programmability*, 4) *advertising* of knowledge (concept taken from Daniel Hameline, *Du savoir et des hommes. Contribution à l'analyse de l'intention d'instruire*, Paris, Gauthier-Villars, 1971) and 5) *control* of aquisitions. External didactic transposition is to transform scientific knowledge and practices in school programs, corresponding currriculum type formal (written, prescribed). It is that aspect of the curriculum explained in numerous documents that direct teaching-learning processes, and in which are listed the school contents to be transmitted, education plan, curricula, etc. It exists as an expression of prescriptibility and programmability in learning (Perrenoud, 1998, p. 489).

Internal didactic transposition, from taught knowledge to learned knowledge is achieved in school didactically performed by each teacher in the classroom. Internal didactic transposition consists in transforming curricula in lesson projects which corresponds to real (taught) curriculum. It is the aspect of the curriculum that covers all the knowledge, skills, attitudes updated effectively in taught by the actors involved in the process (teachers and pupils).

These two are distinct because they operate, respectively *outside the school* (in what Chevallard terms ironically the *noosphere*, the "thinking circle" around the school (see fig. 3. b), and *inside it* (e.g. as teachers struggle to adopt and adapt a new curriculum in actual teaching). The study, offered in Chevallards book, of a part of the didactic transpositions involved in the history of "modern mathematics" in school reforms of the late 1960's, clearly offers a French perspective.

From the academic knowledge at the school-type knowledge is reached through a process called didactic transposition. This concept, developed by sociologist Michel Verret (Le temps des etudes, 1975), was introduced in teaching mathematics by Yves Chevallard and Marie-Alberte Joshua (1982) in the work *Un exemple d'analyse de la transposition didactique: la notion de distance*, printed in *Recherches en didactique des mathématiques*, 3/2. Grenoble, La Pensée Sauvage. Historically, the germs of *the antrolologicl theory of didactic* ATD are to be found in *the theory of didactic transposition* TDT whose scope was at first limited to the genesis and the ensuing peculiarities of the (mathematical) "contents" studied at school; from this perspective, ATD should be regarded as the result of a definite effort to go further by providing a unitary theory of didactic phenomena as defined in what follows (Chevallard, 2012, p. 2).



**Figure 3.** Didactic transposition: a) Comparison between structure of the academic knowledge and structure of the taught knowledge - Desincretization is able to delineate taught knowledge of academic knowledge (Robinault, 2012, p. 27); b) Noosphere (Robinault, 2012. p. 21)

#### **4.2 Reconstuction of contents**

Reconstruction of contents is achieved by didactic transposition. Theory of Didactic Situations TDS (Bousseau, 1998) requires to show the didactic triangle that exists in classroom: Teacher-Contents-Pupils. Now it si necessary to speak about the didactic contract because after his negotiation starts the transfer contents in classroom through a didactic speech. The concept of "didactic speech" has a comprehensive extension because all interactions m are set in the educational process aimed at the most general possible: transmission and reception with educational messages, given the complexity of reality expressed, this concept may be conferred on a wide range of meanings: notification, exchange, relationship, sharing, make known, presentation, transmission, participation, influence, control, opportunity, fostering the exchange of ideas. Therefore, a complete definition, universally accepted, it is difficult to build. However, we can say, first, that the speech teachers understand the whole process through which exchange information and meanings between teachers and pupils/students that are in a specific educational situation. Through didactic speech expresses a reality, presented as objects, phenomena, facts, relationships, feelings etc. Discursivity observation results of of the phenomenal world, sharing ideas, contractual-polemical aspect of the texts marks deeply the profile and the process of the current science and of the various corelativly social practices, as in the case of education process At the interpersonal level, communication is the mechanism by which human relations exist and develop, so all symbols and means to convey in space and time preserve them. Of course, we can talk about didactic speech in terms of "influence" or "action" taken in order to cause changes in the

personality of the pupils because we can not reduce significantly to the simple transmission of information (Albulescu, 2009, p. 5).

#### 4.3 Reconstuction of contents computer-mediated

E-Learning introduces advantages such as: attractive form, personal rhythm and involvement. On the other hand, the use of skills and abilities unaided human factor is a disadvantage. Communication technologies do not allow the same degree of interactivity as interpersonal communication, but development of educational software tends to blur the differences because they serve complementary functions: information, exercises, assessment, modeling (student is faced with a particular event or private data), utilities (provides support construction of text, graphs), simulation (outside real situations).

One of the main problems teaching institutions meet in this respect relates to the gamut of available e-tools and their broad range of complexity of use. To take just one example, in its "25 Tools Programme", The Centre for Learning & Performance Technologies Web site puts forward the following list of 25 e-tools: 1) Web browser; 2) Email tool; 3) Instant messenger; 4) Social bookmarking tool; 5) RSS reader; 6) Real-time messaging tool; 7) Online Calendar; 8) Office suite; 9) Mind mapping tool; 10) Start page tool; 11) Blogging tool; 12) Web authoring tool; 13) Wiki tool; 14) Photo hosting and sharing tool; 15) Presentation hosting and sharing tool; 16) Video hosting and sharing tool; 17) Collaborative presentation tool; 18) Podcasting tool; 19) Screen capture/casting tool; 20) Polling and survey tool; 21) Web meeting tool; 22) Live broadcasting tool; 23) Social networking tool; 24) Course authoring tool; 25) Course management tool. A small number of remarks are in order here. Firstly, it is striking that most if not all of these tools are not specific to education, and that their relevant didactic uses remain to be conquered. Secondly, it is very likely that many people in the field of education will not make sense of each and every item on the list: "new" education is really new (see Cucos, 2014, pp. 461-466). Thirdly, as concerns functionalities, there is some overlapping between all these tools: for example, forum discussion tools, which often showed up in the literature on e-learning at the turn of the twenty-first century, have been since then subsumed within tools like cours (Chevallard, 2008, p. 167).

#### 4.4 Curriculum paradigms axiomatic framework for reconstruction of contents

Didactics is the part of pedagogy that studies the principles, methods and forms of organization of the educational process. The using of the paradigms is specific of the philosophy. With the advent of postmodern didactics, curriculum type, the using of the paradigms in pedagogy has expanded greatly, creating a whole literature. At present, we can say that the curriculum paradigms use to guide the contemporary education, serving to a more efficient application of didactics in the problem of knowledge. The success of curricular theory is determined by its impact on educational practice (Prodan, 2013, p. 183). The teacher E. Păun, signals influence in education of the different paradigms and presents many similarities between the paradigms listed and the characteristics of modernity and postmodernity. Modernity is associated in relation with rational and technological paradigms, because that give value at the socio-organizational theory, the economic aspects and at the systemic approaches in education. Postmodern theorizing include (Prodan, 2011, p. 31): historical perspectives (reinterpretation, subjective experience of history); aesthetic perspectives (artistic dimensions of the human person) social criticism (construction and deconstruction of truth

and knowledge); cultural analysis (critical negative impact of modern technology on the human psyche and the environment); radical eclecticism (critical discourses construct and deconstruct): cosmological discourse (personal and universal harmony search). Deepening the problems paradigmatic, E Joiţa proposed redrafting using "the update and the development of a system of paradigms" in order to enhance the status of pedagogy as normal and mature science.

In the famous book "Undestanding Curriculum. An Introduction to the Study of Historical and Contemporary Curriculum Discourss" W. Pinar et al, granted early times, a focus on the use of the concept of paradigm in the curriculum (Pinar, 2004, p. 15-23). The first paradigmatic construction "Didactica Magna" is focused on "a universal art to learn all everything" (Comenius, 1970: 7). It took for a long period of reflective maturation of the human spirit that the problem adequacy of knowledge to the object of knowledge to be able put in perspective of the development and the criticism of the philosophy. This process of cognitive maturation has led to the formulation of problems and solutions "paradigmatic", means the methods, the scope, the guarantees and the value of the knowledge of which man is capable. Pedagogy has a new mission: to provide teaching paradigms and methodological ideas suitable for education postmodern (Ilica, 2010, p. 1).

#### 5. Conclusions and sugestions

With regard to the theme addressed the following conclusions are drawn:

- -Knowledge transmitted through the school will have to keep a convenient report both *academic knowledge*, characteristic of the scientific community, but also with the knowledge that became common (or trivial) to ensure, in this way, a sedimentation of the new. *Knowledge taught* in school, is subject to a process of erosion, wear "physical" and "moral". Physical wear occurs when what is taught does not correspond to new data of knowledge. Obsolescence occurs when knowledge is trivialized a presentation surplus, their massive. A knowledge that everyone possesses or not help anything, not worth to be present in school plans (Cucoş 1996, p. 70).
- -Axiology is a field that can direct didactic transposition to make educational contents more useful for sociocultural system. Given this perspective (Develay M. 1992, p. 25 apud Cucoş, 2014, p. 506) is indicated to take into account at *didactic transposition and axiological idea* when reconstruct the contents, respectively, need to adjust at the school knowledge and the values claimed and claimed by the makers (see fig. 1 b);
- -Didactic speech lies between *discursive strategy* and *argumentative performance*. Reconstruction of contents is guided by the axiomatic framework of the paradigms of curricula. These limitations and guidelines apply and where reconstruction content is performed by reference to the idea of didactic transposition.
- -Didactic transposition is interpreted as *diactic engineering*. Reconstruction of content computer-mediated in didactic speech is interpreted as *linguistic engineering* (Ionescu, 2010, p.1).
- -Didactic transposition exhausted almost all topics in mathematics. Today expects new topics in scientific research of mathematics, but these rarely appear. Situation is similar in most subjects taught in schools. In these conditions *didactic transposition finds applicability in religion* (Polidor and Stigal, 2012, p. 5) or in interdisciplinary scientific fields that have a higher rate of occurrence of new topics to which can apply the didactic transposition.

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