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## Editorial: Didactics and Transdisciplinarity

Adia Chermeleu<sup>1</sup>

The need to understand the dynamics of the current world and to respond to its many uncertainties led to a *transdisciplinary reflection* in the education sciences faced to norms, and values and, especially, intercultural and transnational practices. The contemporary transformations and the globalization of education problems need a transdisciplinary approach, which shall take into account all the dimensions of the human being. In such vision, we focus on the multiple connections between local and global, on making a pedagogical framework which shall allow the pursue of a unitary meaning of the world.

The term *transdisciplinarity* was used for the first time by Jean Piaget in 1970, with the meaning of improvement of the methods used in university education, of spacing from lecture-type courses, for searching “a new type of knowledge”, as result of the “instability of borders amongst subjects”<sup>2</sup>. Piaget’s conception is not alien, in a certain extent, to Blaise Pascal’s ideas, who had already shown that the world cannot be totally known, without knowing its parts, no matter how different they might be, are interconnected by complex relations, complexity becoming one of the key ideas of transdisciplinarity. For Edgar Morin<sup>3</sup>, the most famous transdisciplinarity theoretician, education for the future might enter in the teaching process the *qualities* of knowledge: to regard the error and illusion; to place the entire information in a context and assembly; to relate to the human condition; to face uncertainties; to learn understanding, which is to study the root of misunderstanding and its effects, like racism, xenophobia, despise; to understand the ethics of the human genre, which cannot be learned / delivered by morality lessons.

*Dicționarul Educației (Education Dictionary)* described transdisciplinarity like a “pedagogical approach (...) with a priority focus of its intents on the full development of the subject, beyond purposes centered on school contents”<sup>4</sup>. In such vision, the purpose of transdisciplinary education may be to learn to change ourselves and to change society, and such education related evolution is not possible without being able to recognize each other in the *look of the Other*, by intercultural, transreligious and transpolitical attitude, which is to be learned<sup>5</sup>. Transdisciplinarity knew, with time, multiple and different interpretations, controversies and redefinitions.

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<sup>2</sup>H. Nowotny, (2003), *The Potential of Transdisciplinarity. Rethinking, Interdisciplinarity*. Available on-line : <http://www.interdisciplines.org/interdisciplinarity/papers/5>.

<sup>3</sup> Edgar Morin, (1997), *Réforme de pensée, transdisciplinarité, réforme de l’Université*, Lucarno, *Motivations*, nr. 24.

<sup>4</sup> R. Legendre, (1993), *Dictionnaire actuel de l’éducation*, Paris / Montreal, Eska, p. 1369.

<sup>5</sup> Basarab Nicolescu, (1997), *Évolution transdisciplinaire de l’Université*, Paris, UNESCO.

Some studies<sup>6</sup> consider that transdisciplinarity and interdisciplinarity can be considered similar concepts which mobilize, in favour of the same situations, resources coming from various subjects. Several common ideas came up out of most theoretizations: study of a topic by the representations of several subjects, but also by pedagogical approach *beyond subjects*, which follows the application of *fundamental methods common for all subjects*<sup>7</sup>. According to the CIFAR (Canadian Institute for Advanced Research)<sup>8</sup>, the fundamental principle of transdisciplinarity consists of the systematic refusal to approve the world and its issues, by the categories imposed by scientific subjects.

According to other researchers, transdisciplinary education assumes the study of a problem or object by specialists in various subjects, reflections of which transcend their field, by the merger of knowledge and methods, rather representing a definition of interdisciplinarity. Other researchers talk about co-disciplinarity or metadisciplinarity<sup>9</sup>. Alain Caillé<sup>10</sup> is voluntarily seduced by Edgar Morin's ideas, as related to the crossing of subjects with uncertain limits which are to open towards other subjects as well, in order to become fecund. Starting from Marcel Mauss' notion of *interscience*, he proposes to waive the term of transdisciplinarity, for the term of *metatransdisciplinarity*, understanding by it the interrogation of subjects in their hidden paradigmatic fundamentals. Jean Biès<sup>11</sup> names it *holist education* within the school and University, an adapted rehabilitation of a *tripartite anthropology*, of *psychologies psychosofies* and their practical applications.

In Romania, transdisciplinarity is understood as "interconnection of several subjects taking the shape of curricular integration, with the possibility to build, with time, a new subject or a new field of knowledge, by what we call merger – the most radical step of integration"<sup>12</sup>. The merger process of knowledge belonging to various subjects leads to the emergency of new investigation fields and to the development of integrated research projects and programs. In such vision, integrated design and approach of the curriculum, specific to transdisciplinarity, are centered "on real life, on important, significant problems, as they appear in the day-by-day background and as they affect people's lives.(...) The learning acquisitions get their meaning and value only by their contribution to the personal, social and professional success of youngsters. The formal classical subjects lose their capacity to dictate

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<sup>6</sup> Yves Lenoir, Lucie Sauvé, (1998), <<Introduction. L'interdisciplinarité et la formation à l'enseignement primaire et secondaire : quelle interdisciplinarité pour quelle formation ?>>, in *Revue des Sciences de l'éducation*, vol. 24, no. 1, p.-3-29.

<sup>7</sup> P. ANGERS et C. BOUCHARD, (1992). L'intégration, source de l'interdisciplinarité. In R. Delisle et P. Begin (dir.), *L'interdisciplinarité au primaire* (p. 69-77). Sherbrooke :Éditions du CRP.

<sup>8</sup> <https://www.icra.ca>

<sup>9</sup> C. Blanchard-Laville, (2000), << De la co-disciplinarité en sciences de l'éducation>>, in *Revue française de pédagogie*, nr. 132, p. 55-66.

<sup>10</sup> Alain Caillé, (1997), <<Guerre et paix entre sciences. Disciplinarité, inter-et transdisciplinarité>>, in *La revue du M.A.U.S.S.(Mouvement anti-utilitariste dans les sciences sociales)*, nr. 10, p.5-20.

<sup>11</sup> Jean Biès, (1998), <<Éducation transdisciplinaire. Profils et projets>>, in *Bulletin interactif du Centre International de recherche et Études transdisciplinaires*, nr. 12.

<sup>12</sup> Livia Pop (dir.), (2011), *Didactic Strategies in Transdisciplinary Perspective*, Bucharest, Ministry of Education Learning

the development manner of training and the curricular design model”<sup>13</sup>. Integrated design of the curriculum assumes adapted organizing of the learning process, centered on the principle of “*learning by research/investigation and discovery*, principle based on holistic and constructivist vision on the learner and on the surrounding world”<sup>14</sup>.

Transdisciplinary approach in education sciences assumes a rethinking of the concept of subject and, respectively, of the concept of didactics. It is known that, along time, knowledge and the report of man to scientific knowledge evolved, starting with the 17<sup>th</sup> century, when the fundamental discoveries of scholars like Copernicus or Galileo Galilei led to the change of anthropocentric conception of man on the Universe, which led to the progressive organizing of scientific research in subjects. “Practiced in excess, this specialization determined the researcher to forget, many times, that its study object was registered in a global background of knowledge, in general”<sup>15</sup>. Out of such perspective, transdisciplinarity represents a needed exigency of the current world and awareness of the fact that the substance of knowledge is merely within a subject but rather *beyond* it. Transdisciplinary approach does not mean, however, the end of subjects, but rather the need of a supra-specialization, in order to understand it all, what led to looking for *strategies and methods*, able to offer new perspectives to subjects, to enable the understand of phenomena complexity, by a global approach.

We have noticed lately a will of disciplinary opening, which animated many pedagogical reflections on the possibility that various subjects consociate around a project and collaborate in order to fulfill it, which essentially represents a interdisciplinary approach, term transdisciplinarity is taken for, more often, or, in other words, step where the transdisciplinary undertaking ends, which, we all know, does not exclude, but assumes pluri- and interdisciplinary. It is well known, for such purpose, Basarab Nicolescu’s metaphor, which considers that “disciplinarity, pluridisciplinarity, interdisciplinarity and transdisciplinarity are the four arrows of one single bow: which is knowledge”<sup>16</sup>. A didactic transdisciplinary undertaking is considered to succeed when the pupil /student, initiated by multiple approaches and with successive perspective changes develops him or herself various disciplinary loans and connections (methods and instruments, writing, creative improvisation) during the learning process, where school needs to propose to train him or her by global approach, avoiding the decoupage of knowledge in dissociated units, without any connection in-between. “It is obvious that social and professional life merely contain problems which shall only refer to one single subject”<sup>17</sup>.

Transdisciplinary vision from the sciences of education led, with time, to the concept of *transversal competences*, which started appearing in the official programs of the end of the 20<sup>th</sup> century, without being initially

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<sup>13</sup>Lucian Ciolan, *Integrated Learning. Fundaments for a Transdisciplinary Curriculum*, Iași, Polirom, 2008, p.130-131.

<sup>14</sup>*Ibidem*, p. 131.

<sup>15</sup>Aude Guillevin, Vincent Magnon, Olivier Moulin, Kahina Zaïmen, (2007), <<À propos de transversalité dans l’école de musique>>, in *Cahiers de recherche. Enseigner la musique*, nr. 9&10, p.1-18.

<sup>16</sup>Basarab Nicolescu, *op.cit.*, p.13.

<sup>17</sup>Michel Develay, Philippe Meirieu, *Émile, reviens vite – ils sont devenus fous*, Paris, ESF (PÉDAGOGIQUES), 1994, p. 176..

accompanied by theoretical definition. One of the first definitions is owed to Phipippe Perrenoud who considered that “a transversal competence is a structured network of declarative (to know, to learn), procedural (how to make, to apply) and conditional (when and why) attitudes and knowledge, in order to adapt, to settle complex problems and to make projects in a given background”<sup>18</sup>. Transversal competences are different from disciplinary competences by the fact that they have, by definition, a larger area of applicability, going beyond disciplinary and learning fields limits, by the fact they assume an assembly of knowledge and concepts, abilities and attitudes, which may allow the fulfillment of *complex tasks*, which involves, in transdisciplinary vision, the plenary development of the pupil /educable, both personally, and as related to initiative, imaginative and autonomous creation capacities. Already a known concept used in all school/university curriculum, transversal competences are also called *competences for life*<sup>19</sup>, which follows the adaptation of the educable to the surrounding environment, active citizenship, capacity to work within a team and working in heterogeneous social groups, their social and affective development, making their work more effective, capacity to be occupied, life learning, complex and critical thinking etc.

All such mutations to in education sciences determined a rethinking of disciplinary didactics, generally understood as teaching/learning science of a subject. It is known that any subject reunites own scientific knowledge and concepts with knowledge from other subjects, referring as well to concepts from the learning psychology, from sociology, philosophy, cultural anthropology etc., in the attempt to professionalize and adapt to the practical exigencies imposed by the current world. The preoccupations of didacticians have marked out lately the need of transdisciplinary vision in didactic researches, in an attempt to respond to educational challenges related to inter and trans-disciplinary reports amongst subjects, of integration possibilities and limits of such reports<sup>20</sup>. There appeared, as such, new interrogations and new reflection themes around themes arisen from transdisciplinary approach. Interrogation on school knowledge regards both subjects taught in school and at the University, and competences of pupils/students, but also of teachers, their profiles. School epistemology, understood as critical view on the contents of learning, in terms of principles and methods, may guide us to a *complex vision* on the specialty didactics and to *possible thematic reflections* arisen from the integrated approach of a curriculum:

- methods used in the transdisciplinary delivery/learning process
- integration of cross-curricular topics in the basic curriculum
- didactic speech from the perspective of transdisciplinary communication
- transdisciplinarity in university curriculum

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<sup>18</sup>:[http://www.unige.ch/fapse/SSE/teachers/perrenoud/php\\_main/php\\_1995/1995\\_08.rtf](http://www.unige.ch/fapse/SSE/teachers/perrenoud/php_main/php_1995/1995_08.rtf)

<sup>19</sup>R. Legendre, *op.cit.*, p. 736.

<sup>20</sup>V. Adia Chermeleu, (2015), *L'éducation transdisciplinaire. Quels enjeux didactiques dans l'enseignement primaire?*, in Nabil Hajji et Odette Lescarret, *Les mouvements sociaux à l'épreuve de l'interculturel*, Paris, l'Harmattan, col. Espaces interculturels, capit. 6, p. 93-103.

- a new epistemology of school knowledge in transdisciplinary vision
- from didactics – research to action didactics
- disciplinary didactics with transdisciplinary practice
- relations between education sciences and disciplinary didactics in initial and continuous training
- didactic strategies in cross-curricular learning
- cross competences in university programs
- integrating concepts, true lecture keys of subjects
- transdisciplinarity for interculturality and international education
- transdisciplinary evolution of the University
- semantic mutations of the trade of teacher
- towards a paradigm of educational unity

Beyond many opinions, sometimes divergent, related to defining, problematic and methodology, “Transdisciplinarity may be considered a current of ideas, a revolution, a paradigm change or a new vision of the world. In substance, it is a little of all, as it proposes a reflection way and stimulates creativity”,<sup>21</sup>. Transdisciplinary dimension of the education sciences is part of the current paradigm of the world which unites imaginary to reality and scientific theories with a poetic vision on the world. The interrogation of possibilities offered by school and University, of the relation between Didactics and transdisciplinarity – the topic proposed by no. 2/2015 of the Journal of Educational Sciences – in the holistic training of the educable is part of this process itself.

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<sup>21</sup> Victoria Gonzales Garcia, (2014), <<La pratique de la transdisciplinarité à l'Université et ses implications sur le curriculum>>, in *Présence. Revue d'étude des pratiques psychosociales*, vol. 6, p.1-19., available on-line : <http://www.uqar.ca/psychosociologie/presences/>

## Explanations and developments in the sphere of concept of teaching competence. The specifics of university teaching competencies

Ecaterina Sarah Frăsineanu<sup>22</sup>

**Abstract:** The training of academic teachers is an important aspect in the international and European context because of how they are set firstly, then developed the competencies of academic teachers considerably influence outcomes in higher education. The competencies and professional standards are the core training, they being discussed nowadays in terms of ensuring the quality of higher education, centering it on the student, but also on the external or internal evaluation of teachers. With the help of these competencies, in higher education, the training and relations can keep pace with the changes taking place on the social level: the internationalization of education, inter-enlightenment, globalization, the mobility of students, use of communications and technologies.

From the most definitions results that a competence combines knowledge, skills and personality characteristic features – attitudes, skills in a particular context. Very interesting is the observation that, in identifying the key competencies is necessary to consider the psychosocial prerequisites of success and good living. Therefore, the key competencies are necessary to adapt to a world characterized by change, complexity and interdependence among people.

Cumulating a number of theoretical explanations on the concept of teaching competence, we intend to identify the core aspects of the manifestation of these skills for the teacher in higher education, by reference to feedback concretely achieved in the interactions with the participants in a university training program. We referred to academic teacher in general and we did not consider the levels of his evolution, but a desirable model of the teacher as a professional, from the perspective of the training subjects. The competencies of academic teachers include specific competencies, and of them the critical ones are of training and transversal competencies, the psychosocial, and the latter are those that help them adapt to the dynamics of academic environment. At the practical level, our study presents the results of an empirical research, conducted on the base of questionnaires and experiment for the participants in a program of psycho-pedagogical training.

The results confirmed the important role of competencies of teachers to ensure the quality of training programs, starting from the educational needs analysis. The latter refers to both the learning, training requirements and the expectations, desires, motivations, interests, goals of beneficiaries; the request to value the main competencies of teachers who educate them, being an indirect expression of educational needs and yet, unusual for students. Our prerequisite was that the quality education implies interdependence between the suppliers and beneficiaries involved in the educational supply and one of the ways to ensure it is the compatibility among the

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components of the professional development of teachers and the real focusing on student. As a result, the profile of the capitalized competencies after the empirical research conducted includes: the competencies to unfold training, by clear, attractive contents presentation, providing the learning an applied and interdisciplinary aspect, using interactive methods; optimization competencies of the use of educational resources; networking and mentoring competencies, learners support, based on a better knowledge, communications; curriculum building and implementation competencies, by organizing the contents; competencies to grant the feedback and of proper, objective assessment; learning and professional improvement competencies; competencies to participate in the development of the educational institution, to involve in the university-other social institutions partnership.

The competencies based approach has advantages and limitations. The main advantage is that a structured pattern favors monitoring the professional training, gives a sequential, progressive approach. At the individual level, it can get better motivation and personal development and at the organizational level, an inventory of competencies is an assessment tool of the personnel and quality management tool. But even a well-determined framework of competencies does not always guarantee the possibility to put it into practice and measure its direct usefulness in profession and society. The professional needs are reassessed continuously, they are modified, adapted or even changed in the course of practicing their profession throughout life, as a result of social demands (improvement, , retraining, reconversion), but also due to the intervention of self-organized learning approach within the framework of self-education and self-improvement. The success of a self-training project depends on practice, involvement in a sufficient number of activities and organizing the results into a coherent whole.

As a synthesis, among the characteristics of teaching competencies is the fact that they evolve gradually, involving a deployment which lies in a continuum, with a development from simple to complex; they affirm themselves in a real professional context, are dependent on context; are based on a set of resources (of skills and attitudes); are indivisible; they are heterogeneous by their components and homogeneous by goals; they are subject to change; involve opening, globality and interactivity; require learning and development processes well defined; they are a project influenced by many factors and, not least, they are interdependent.

**Keywords:** competence, university teacher, standard, professionalism

**1. Short History.** There is the concern in education for reporting to certain objectives, as a logical approach for identifying the desirable values and to translate them into descriptive elements, with a greater or lesser generality in order to provide a better orientation on the results. From focusing on knowledge, it has reached in the latter part of last century to focus on objectives, the behaviorism generating numerous taxonomic variants to operationalize the behavior.

Then from the objectives measurable on the base of performance, achieved in a short term, by a report to a well-defined content, it has reached to a new reference system, the competence, achievable over a medium or long period of time, and this represented a fundamental change in the design and implementation of education. According

to the observation made by Ardelean and Mândruț, the competencies are interpreted as learning outcomes (outputs), as opposed to the educational goals (regarded as inputs) (2013, p.22).

An important role for the domain affirmation had the movement developed in the years 1960-1970 in the USA and expanded later to other countries (such as France), movement referring to the competencies-based teachers' training, which has led to some analysis and studies on the teachers' competencies. Among the representative authors are included: R.W. Houston and R.B. Howsam (1972), J. Cardinet (1982), L. D'Hainaut, V. De Landsheere (1988), B. Rey (1996, 2011), Ph. Perrenoud (1994, 1998, 2001), M. Altet (1996), X. Roegiers (2000), P. Jonnaert (2002), G. Le Boterf (1999, 2001, 2010).

After the 1980s, following the development of the cognitive psychology, then, the constructivism, it became more general the idea that the processing of information leads to the formation of certain competencies, results which works as a whole and are obtained in a medium and long term. In fact, the influences of the main social paradigms determined also in education a reversal of the priority objectives (from knowledge to skills and attitudes), which assumes acquirements that ensure the learning to learn and gaining the intellectual and spiritual autonomy of man. From a constructivist perspective, focusing on competencies is more necessary today, for pragmatic reasons (Joița, 2010).

**2. The essence of competencies.** In 2001, Perrenoud analyzed the competence as a cognitive resources mobilization that guides the action and decision. It is about : knowledge (declarative, procedural, conditional), capacities (aptitudes, schemes of perception, thinking, judgment and evaluation) and attitudes, values, norms, internalized rules, reference to a number of landmarks such as: what is known, what is done, to others, what it can be done. The National Education Law (2011) defines the competence as a multifunctional and transferable ensemble of knowledge, skills/abilities and aptitudes required in different situations.

The competence is the proven ability to select, combine and use, in an appropriate way, knowledge, skills and other acquisitions consisting of values and attitudes for successful resolution of a certain category of work or learning situations and professional or personal development in conditions of efficacy and efficiency. If these components of competence exist and manifest themselves separately, they do not ensure the successful implementation of the activity. Therefore, the competence is related to specific situations, concrete, usually in the professional plan.

The transversal competencies – represent values and attitudinal acquirements that transcend a certain area/study program and are expressed by the following descriptors: autonomy and responsibility, social interaction, personal and professional development. The transversal competencies are transferable (e.g. cooperation, communication, creativity), they belong to the socio-relational domain, so they can be used in many life situations, being the engine of other types of competencies. Referring to the trans-disciplinary nature of competencies (Rey, 1996, 2012), B. Rey explained the transferability by the repeatability of the efficient action.

The various analyses about competencies and European policy documents show that, they help to achieve the effectiveness (achievement of objectives) and efficiency (the best use of resources) in activity. Thus, the competencies allow teachers to respond to complex requests, by psychosocial mobilization of resources, in context,

in a consistent manner (Koster and Dengerink, 2008) and they can be demonstrated at a certain level of achievement, over a temporal continuum (González and Wagenaar, 2005 as cited European Commission 2013, p. 10).

**3. The competencies of university teachers.** To synthesize the main specific competencies at the level of university teachers, we considered the fact that a university teacher has many roles (Potolea, 2008): the role of expert; didactic; role of researcher; educational role; institutional and community role; role on his own training and personal development. By reporting to these roles (idem) are derived series of competencies in: the design of teaching and making curricular products, teaching-learning practice, in practice of assessment, in innovation of professionalization of students, in networking, knowledge and counseling students, in participation at personal development and the institution which the teacher belongs to.

In the study conducted by Struyven and De Meyst (2010) it is shown that the implementation of the professional competencies of teachers is differentiated, meaning the ones closely related to the role of teaching are clearly present in the policies and practices of institutions (e.g. the teacher as learning and development guide, the teacher as expert), while other competencies are manifested still weak (e.g., the teacher in relations with the external partners of institution or as a member of the educational community).

The Romanian authors such as Duță, Pânișoară and Pânișoară (2014) have studied the importance given even by the academic teachers to the sides that make up the profile of a good professor. These were, in order of importance: transversal competencies; teaching, scientific, relational competencies; vocation and dedication; experience in educational institutions; self-assessment and professional development; involvement in research.

**4. Standards of teaching profession.** In Romania, the concept of pedagogical competence is closely connected with the professional standards (minimal) that should reach a person while practicing the main tasks of teaching profession. The standards indicate formulated expectations in order to ensure the quality in education and are used from the evaluative perspective. With special reference to the teaching profession, Emil Păun (2009) showed that the professional standard should be regarded as a living, dynamic ensemble of competencies, which is always improving. Also, D. Potolea and S. Toma (2013) explained that the standard can be understood either as a set of competencies (the competencies are circumscribed to a standard) or the standards define or make sense to the evolutionary steps of one and the same competence.

For the academic education, in our days, an important role in the analysis of professional activity had the appearance of *The minimal standards required and mandatory for conferring the didactic titles in the academic education and the professional degrees of research-development* (O. M. 6560 from December the 27<sup>th</sup>, 2012, as amended and completions of July the 18<sup>th</sup>, 2013). Closely related to the European educational policy guidelines the evaluation system of the university staff (coordinator Potolea, 2008), which is in a constant change and improvement, provides a structure of the key areas of university teacher training in teaching activity, the activity with students, scientific activity, institutional services.

Among these areas, it is shown that for the core domain – the teaching one – is required to rethink the teaching, starting from the curriculum design, training conduction, evaluation of students' training and performances up to the professional improvement.

From the perspective of focusing on student (Iucu, 2011) – the standards of the teaching profession depend on a number of factors: axiological ones, philosophical, political, particularities of the curricular cycles, the nature of study disciplines, stages of professional development, explanatory paradigms of the professional efficacy and efficiency, transition to modern education and, not least, the development of the Science of Education.

Some criticisms of this issue notes that the variety, creativity and autonomy of the practices of teachers could be reduced by the use of the standards for the evaluation and professional incentives (Menter and others, 2010), they do not guarantee the quality of the education and can be in their turn subject to interpretation.

### **5. Identification of the specific of competencies of academic teachers. Empirical results**

Aiming to shape a profile of competencies needed for academic staff, we asked a number of 135 respondents, students of the training programs at the Department of Teachers' Training, University of Craiova, 2015, to value and propose the competencies that a teacher must possess generally in training students and relating with them. We focused on the teaching skills, as they represent the core of the main activity of university teachers holding the positions of assistant lecturer, associate professor, professor. The hypothesis pursued by us was the consideration of the training needs of beneficiaries by asking to value the teaching competencies useful in their training helps to ensure the quality of the training programs in academia. The research methodology chosen was the survey based on questionnaire and the experiment/study panel. We watched through the questionnaire to know the profile of competence required by learners and the experimental intervention consisted in the close monitoring the implementation of components indicated at the beginning of the training program. The results of the items of questionnaire applied were summarized in Table 1.

From the table below, it can be seen the most valued competencies (on the assessment scale: Very much). These made references, in order of preferences, to the following skills and abilities of teacher: clear, attractive presentation clarifying theoretical concepts, practical character, interdisciplinary links, interactive methods (94,4 % of responses); the innovative manifestation by optimizing the activity in academic education (90,2 %); good knowledge, communication, counseling, guidance, support, and orientation of young and adults (87,5 %). The most competencies got close scores, they being appreciated, mostly at the level Very Much and Much. Assessed at Average or Less and Very Little level and therefore less important are the competencies related to: the use of new multimedia technologies (11,8 % of responses); participation in the promotion and development of the educational institution (5,4 %).

Table1. The importance given by the students to the necessary competencies for academic teachers

Competencies	Components	Very much	Much	Average	Less	At all
<b>1. In designing the curriculum and teaching activity</b>	proposing clear goals	82%	11%	7%		
	using innovative contents, well-structured, accessible, ensuring lecturing material	84,8%	9,7%	5,5%		
<b>2. In teaching</b>	announcing and respecting the criteria/deadlines	83,3%	11%	5,5%		
	establishing the way of work depending on the needs of students	80,6%	9,7%	2,7%		
	clear and attractive presentation, applied character, inter-disciplinary links, interactive methods	<b>94,4%</b>	5,5%			
	ensuring guiding, organizing, good communication, motivation	83,3%	9,7%	7%		
	use of new multimedia technologies	54%	34,7%	9,7%	1,38 %	
	creation of a good climate	86,11%	12,5%	1,38 %		
<b>3. In the practice of assessment</b>	granting stimulating feed-back	83,3%	7%	2,7%		
	adopting adequate methods of assessment	83,3%	16,6%			
	fair and correct assessment	84,7%	13,8%	1,38 %		
<b>4. In the field of innovation</b>	optimization of activity in academic education	<b>90,2%</b>	8,33%	1,38 %		
<b>5. In relation</b>	good knowledge, communication, counseling, guidance, support, orientation of youth and adults	<b>87,5%</b>	11,1%	1,38 %		
<b>6. In own development</b>	learning and professional improvement	81,9%	15,2%	2,7%		
<b>7. In participating at the institutional development</b>	implementing viable development projects and setting partnerships with social environment	77,7%	16,66%	2,7%	2,7%	

We consider that the responses of subjects who were part of the sample (teachers participating at continuing training classes, young and adults) are relevant and they have, in our opinion, internal consistency, meaning that they do not contradict themselves and point the same time, the components whose content should be developed

further at university level. The common note of these proposals is given by the requirement for a real focus of teacher on student.

At the open question *what aspects you appreciate most about the demonstration of knowledge from academic teacher?* - the answers were: the teaching skill, clear, concise, attractive presentation; exact knowledge and mastery of specialized language; diversity and complexity of knowledge; facilitation, accessibility of contents, adapting to students (young, adults); structural, organized character of teaching; correlation of data from several fields; broad perspective for approaching the discipline of study.

At the question *what aspects you appreciate most about the demonstration of capacities, abilities, skills of academic teachers?*, the subjects provided the following guidelines: the mastery of certain presentation techniques; varied communication skills, open, flexible rhetoric; synthesis capability, capability to capture the important elements; ability to develop applications; ability to argue; the skills to provide instructive feedback.

Regarding the aspects most appreciated about the demonstration of attitudes, values, behaviors of the academic teachers, the students indicated: the availability of teachers for guidance, their involvement; their patience and responsiveness to requests; pleasant relationship during training; tolerance in accepting the differences in opinions; attitudes that command respect, stimulate motivation, commitment and provide behavioral models; professional ethics; objectivity in assessment; optimism.

As shown above, from experimental-improving reasons, we intended to find out whether there is a correlation between the assessment of competencies required by learners (at the beginning of training) and their satisfaction after attending the training stage (at the end of training). Knowing the profile of the most valued competencies by students, we implemented them in the training course, designed specifically for them. At the end of activities subjects were questioned to assess the program quality. The resulting values were statistically processed and showed a strong correlation, which confirmed us the interdependence of the two variables. Thus, using SPSS Program, we determined statistic a significant correlation coefficient of 0.43 ( $r = 0.43$ , positive relationship) at a materiality threshold ( $p = 0$ ) smaller than 0.01, for the 135 subjects ( $N = 135$ ), the parameter date requiring the setting of the Pearson correlation.

## **6. Discussion of results and conclusions**

The qualitative and quantitative interpretation of the above results shows that the subjects appreciated favorably such an approach of the teacher, to take into account the requests, preferences, needs expressed by students since the beginning of training, but also during it. The participants indicated the importance of manifestation of certain transversal competencies; surprising proved to be the tendency of the whole group not to validate the need for mastering the competencies to use the multimedia technologies, which indicates a certain degree of conservatism to the use of modern training tools.

Our pleading for establishing some axes of the competencies of university teachers is based on the main advantage of focus on competence: the fact that promotes the professional training, as by gaining experience to reach at motivation and success. Focusing on competence directs the attention on the effectiveness, efficiency,

efficacy and personal responsibility, on a clear identification of the results, both at individual and organizational levels. Such a list is indicative for the teacher, but considering the perspective of acquiring expertise in this area, it must be filled continuously with the completion of stages of the career development. It is true that, from the perspective of students, of the three areas, teaching and professional activity; the research activity; recognition and impact / institutional services, can be appreciated best the domain teaching and professional activity. By the way of sampling (using a natural sample, not a representative sample) and the modality to collect the data (mini questionnaire applied to students, the type of ameliorative intervention and the researcher's involvement, specific for the panel study) we are aware that the empirical approach presented has a limited validity, however, beyond the theoretical documentation, identifying some of the educational needs of the students is an essential starting point in developing tools (matrices) to propose an inventory of the main required competencies. From a critical perspective, we consider that the main limits for proposing certain desirable profiles for teachers are determined by the fact that such identified competencies would have a predetermined restrictive character, representing external requests and the formulations, prescriptions in theory do not always correlate with the possibilities to put into practice, to transform them into practices at the level of education.

Combined solutions such as using the feedback obtained from learners, the self-monitoring of demonstration of professional competencies, the use of external evaluations, internal evaluation and, especially, the exchange of experiences can contribute to quality management of the training programs, to develop the academic career, personal development, to increase the responsibility and pro-activity.

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# The didactic speech – a new disciplinary field in the Educational Sciences

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**Abstract:** The studies in the field of Communication Sciences have demonstrated that the didactic speech, also known as *pedagogical communication*, may as well favor and hinder the learning, depending on the way it is used. The peculiar nature of the communication in the educational institutions results not only from the stake specific to the school system, but also from the social practices, in accordance with the educational objectives of the society applying it. This paper is based on a series of reflections born during the debates with the students specializing on the *Pedagogy of Elementary School and Preschool Education* during the classes: *The didactics in the field of language and communication* – in the preschool education and the *Didactics of Romanian language and literature teaching* – in the elementary school education. We aimed to bring to the present the main features of the *didactic speech*, as a form of meeting between the *language sciences* and the *education sciences*, as well as the need of introducing, at the level of the initial and life-long training of the teachers, of a *initiation in the rhetoric*, in the speech analysis and the comprehension of the lecture, considering that in front of a class of pupils is not only a history expert, a literature or mathematics expert, but also a specialist in the *pedagogy* of such relevant specialization and in the *didactics* of discipline.

**Keywords:** didactic speech, rhetoric, pragma-didactics, argumentation, life-long training

## 1. Linguistics and pragma-didactics in the current research studies

As of the '80s, the linguistics studies and, in particular, those related to the linguistics of utterance begin to water the field of the pedagogical researches dealing with the language and its capacity to act upon the other and to contribute to the „collective construction of the meaning”<sup>23</sup>. The pedagogical researches regarding the textual typology and the linguistics of utterance started from the taxonomy theories drafted by Bloom<sup>24</sup> and have carried on by the concerns for learning based on argumentation, understood not only within its rhetorical dimensions, but especially as a new disciplinary field, where the language sciences and the education sciences meet. On the other hand, the sociolinguists, inspired by the works of Bateson<sup>25</sup>, defining the communication as a message exchange between partners having a relationship, showing a greater importance to the non-verbal aspects of the communication. From this perspective, the information–content of the communication – is delivered especially

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<sup>23</sup> Tristan Horde, (1977), Claude Desirat, *Formation des discours pédagogique*, in « Langages », vol. 11, nr. 45, p.7.

<sup>24</sup> B. S. Bloom, (1976), *Human characteristics and school learning*, McGraw – Hill, New York.

<sup>25</sup> G. Bateson, J. Ruesch, (1988), *Communication et société*, Seuil, Paris.

through a verbal code and digital means, while the relational aspects– a message about a message and about how it should be understood – also call up to other methods and communicational techniques, such as mimics, gesture, attitude, voice etc. From the communicational perspective, the notion of *pedagogical relation* itself has got, in time, a new meaning, to be further refined by more recent studies<sup>26</sup>. If the communication, in general, is based on a common background of knowledge, the didactic communication targets a transaction, in the sense that the action making the other one participate should result, at least in modifying the knowledge of the other one. The pedagogic traditional conception has been firstly based on the understanding of the education process as transmission of knowledge and information, and the training for communicative skills of the professors has been focused, for a long time, on the key-concept of *pedagogical communication*, in its persuasive dimension, while the more recent studies have been focused on the formative valence of the didactic communication, on the representations on reality of the pupils<sup>27</sup>. In time, the concept of *pedagogical communication* has been replaced with the one of *didactic speech*. The difference between the two concepts is substantiated, in the specialty studies, starting from the difference between *pedagogy* and *didactics*. Starting from the definition of the speech, which we owe to Benveniste, this means “any statement involving a speaker and a listener, as well as the intent of the first to influence the other, in a certain way”<sup>28</sup>. From this perspective, the didactics considers the *transfer of the contents*, while the pedagogy aims the *stimulation of the receiver*. While pedagogy is general, didactics has a specific nature, existing as many didactics, as there are fields of study to teach. The concept of *didactic speech*, inferred from the differences between pedagogy and didactics, refers, to a certain extent, to a *metaspeech*, a speech of second degree, that targets the “manipulation from a semantic perspective of the speeches-statements through a new cognitive aim, by reference to a virtual recipient the pedagogy shall update”. The teacher/pupil communication establishes an allocutive report of learning and meets the terms the didactic speech develops, speech that, “except for the actual pedagogical communication situations, remains a hidden speech”<sup>29</sup>. Due to the enrichment of the reflections on the relations between linguistics and didactics, i.e. between the language sciences, the communication sciences and the education sciences, there have occurred the first approaches trying to analyze the *didactic speech (of the teacher)* from the inter and trans-disciplinary perspective, there have been created the connection bridges between the pragmatic and didactic linguistics, which, in time, led to a new discipline: the *didactic pragmatics*, centered on a comparative approach, by which the analysis of speech from the perspective of the two sciences is attempted<sup>30</sup>. In the center of the didactic speech analysis is the *didactic relation* between the teacher and his/her disciples or the *didactic contract*, understood as “expectations system as compared

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<sup>26</sup> Mircea Miclea, (2011), *Cuvânt înainte*, in M. Minder, *Didactica funcțională. Obiective, strategii, evaluare. Cognitivismul operant*, ASCR Publishing House, Cluj-Napoca.

<sup>27</sup> Philippe Perrenoud, (1994), *Métier d'élève et sens du travail scolaire*, ESF, Paris.

<sup>28</sup> Émile Benveniste, (1966), *Problèmes de linguistique générale*, Gallimard, Paris.

<sup>29</sup> Joseph Melançon, (1981), *Le discours didactique littéraire*, in « Études littéraires », vol. 14, p. 376.

<sup>30</sup> Gérard Sensevy, Serge Quilio, *Le discours du professeur. Vers une pragmatique didactique*, (2002), in « Revue Française de Pédagogie », no. 141, p. 47-48.

to scientific knowledge delivered between teachers and pupils”<sup>31</sup>. Inseparably connected to the idea of comprehension which, in its turn, targets the teaching-learning act, the didactic speech is specific to the educational units. When he/she teaches, the professor *informs*, *rationates* and *explains* – the dominant discursive practices, which presupposes a *didactic metaspeech*, respectively, „a didactics of the discursive skills”, required for those training for a didactic career <sup>32</sup>. An explanatory speech presupposes, besides the scientific knowledge specific to a field of study, social legitimacy conditions and a didactic reflection on the explanatory function of the language, as long as we know that „not everything can be explain to everyone”<sup>33</sup>. From the declarative perspective, the didactic speech is a form of the scientific speech, situated in a privileged relation with the explanation, reasoning and comprehension. Depending on the form of communication –verbal or written – the didactic speech refers to *the speech of the teacher* or to the *didactic text*, analyzed, in general, by the textual linguistics and by psycholinguistics, sociolinguistics, and psychoanalysis. If, for linguistics, *the text* is nothing but an abstract object<sup>34</sup>, *the speech* is produced in an actual communication situation, as a result of a complex network of social and ideological determinations. For example, for Jean-Paul Bronckart<sup>35</sup>, when creating a speech four parameters must be considered in analyzing any type of speech: *the social area*, *the speaker*, *the receiver* and *the purpose* of the language act, parameters that can hardly form the object of a strictly linguistic theorization. The three perspectives, the communicational, the discursive and the textual, reflected by the recent studies, have required and have rendered possible the closeness between the language sciences and the education sciences, to the extent that the didactic intervention does not target only the metalinguistic information, but also a *science of the explanation*. The analysis of the didactic configurations of the educational speech presupposes the conception of a *theoretical model* targeting the pragmatic effectiveness of this type of speech. The model proposed by Reuter<sup>36</sup> starts from the descriptive dimension of the didactic speech and describes the main *functions* that the interaction of the teaching-learning process should meet: the ranking and the structuring of scientific disciplinary knowledge must serve an *informative or explanatory function*. The *evaluative function* is based on a system of values that describe the vision of the professor, while the *transformational* function announces events, explains those already occurred and it dramatizes them. Moreover, there is a *positional* and speech *textualization* function, placing the text in a field of practices, by targeting certain accurate skills, as well as *writing and reading management* function, controlling the understanding or facilitating several types of reading. The didactic speech is thus conceived, “as an exchange affected not only by the speaker and by the recipient, but by the referent (the context, the reality, the world...), as well. Such a model can only lead to the question regarding the <<subject>> in the school environment, in other words

<sup>31</sup> Guy Brousseau, (1998), *Théorie des situations didactiques*, La Pensée sauvage, Grenoble, p. 470.

<sup>32</sup> Eddy Roulet, (1991), *Vers une approche modulaire de l'analyse du discours*, in « Cahiers de linguistique française », II., p. 53-81.

<sup>33</sup> Jean-François Halté, (1988), *Trois points de vue pour enseigner les discours explicatifs*, in « Pratiques », no. 88, juin, p. 4-7.

<sup>34</sup> J.-M. Adam, (1990), *Éléments de linguistique textuelle*, Mardaga, Liège.

<sup>35</sup> Jean-Paul Bronckart, (1985), *Le fonctionnement des discours*, Delachaux et Niestlé, Neuchâtel-Paris.

<sup>36</sup> Y. Reuter, (2000), *La description. Des théories à l'enseignement-apprentissage*, ESF, Paris.

the interrogation of different referents, capable of authorizing a complex outlook about the subject-pupil and subject-teacher”<sup>37</sup>. This approach proposed a gradual replacement of the *communicative skills* concept that has dominated the didactics of the last decades<sup>38</sup>, with the concept of *discursive skills*<sup>39</sup>, including the fundamental textual dimensions of the speech, as well as the mastering of the speech construction techniques, in its linguistic, textual and situational dimensions. For example, the integrated teaching of native language grammar involves, through the multi-dimensional construction of the didactic speech, a lot more than just the mastering of vocabulary, of syntax structures and language acts. Besides the linguistic skills, the teaching of a grammar course also targets the mastering of textual (hierarchical, relational, declarative and compositional) structures, as well as mastering the situational (social, referential and psychological) constraints.

The socio-linguistics, psychoanalysis and pragmatics studies have analyzed the didactic speech from the perspective of the subject in the school environment, in all his dimensions –individual, collective and cognitive- as *agent* of the social environment<sup>40</sup>, then as *actor* in tension with the context<sup>41</sup> and, finally, as *author*, characterized by identity relations or language practices<sup>42</sup>. Lacan psychoanalysis has a different approach on the subject’s problematic from the perspective of the existence philosophy, where the subject in the school environment is not the one thinking, but the one desiring or, better said, not the one only thinking, but also desiring, approach leading, in time, to a *new paradigm in education, the integral education* or the *trans-disciplinary* education, a peculiar phenomenology, understood as a *condition* of the didactic relation acting as a mediator between the analytical intelligence and the affectivity. In this paradigm, the language and the particular way it is used in the didactic relation shall be analyzed from the perspective of the identity construction, which led to a fruitful meeting between pedagogy and cultural anthropology: „Apart from the implementation of the speech and the social, language practices of the pupils, isn’t the School also a space of mediation through the Other, the relation through which the apprentice should build an identity?”<sup>43</sup>

## 2. The rhetoric dimensions of the didactic speech

Any human communication is an *exchange of meanings* and the educational relation in the school context, respectively the *didactic speech*, represents a special form of this exchange. Numerous linguists have described the main functions of the communication, highly important functions from the perspective of the didactic speech analysis. In D. Huisman<sup>44</sup> opinion, the human communication differentiates itself through three main dimensions: *an informative dimension*, where the cognitive content is delivered starting from the classical pattern sender - message –

<sup>37</sup> Rosine Galluzzo-Daffion, (2007), *Didactique du discours : une question de sujet*, in « Actualité de la Recherche en Éducation et en formation, Strasbourg, p. 4-5.

<sup>38</sup> Șoitu, I., (1997), *Pedagogia comunicării*, EDP, Bucharest.

<sup>39</sup> Eddy Roulet, (1985),

<sup>40</sup> Pierre Bourdieu, (1982), *Ce que parler veut dire. L’économie des échanges linguistiques*, Fayard, Paris.

<sup>41</sup> Alain Touraine, (1992), *Critique de la modernité*, Livre de poche, Paris.

<sup>42</sup> Catherine Kerbrat-Orecchioni, (1988), *L’énonciation*, Flammarion, Paris.

<sup>43</sup> Rosine Galluzzo-Daffion, *op. cit.*, p. 9.

<sup>44</sup> D. Huisman, (1982), *Le dire et le faire*, ESF, Paris.

receiver; a *persuasive dimension*, an intentionality, by which the transformation of the other one is attempted, the determination of the other one to act in a certain way; finally, an *expressive dimension*, of an affective-emotional nature, by which the sender expresses himself/herself, which confers the speech a *cathartic function*. Through the social, political, economic and cultural finalities of the education, the educational speech is mostly based on the communication persuasive-rhetoric function, function that derives from its affective-emotional dimension, aiming to appeal and transform. „In other terms, it is not enough for a pedagogic speech to be transparent to be understood, it is not enough to inform to draw the attention, it has to appeal and to move, to touch both heart and spirit, to cause excitement and the enthusiasm, to create sense and to cause the meeting”<sup>45</sup>. The emergence of a didactic rhetoric at the end of the last century for streamlining the didactic speech and action has occurred, especially „as a remodeling of the general rhetoric, in the plan of a comprehensive theory of persuasion, aiming to determine the adhesion of the audience, the change of opinion and the intended change of the audience conducts”<sup>46</sup>. The universal applicability itself of the rhetoric have transformed it in a theory that has allowed for the approach of different areas of knowledge and existence in an inter and trans-disciplinary perspective, among which the one maneuvered by the conjunction of the language sciences with the education sciences. Often mistaken for the manipulation of doctrinaire or even propagandistic speech, starting from the *perverted effects of the communication*<sup>47</sup>, the *new rhetoric*, understood as „multi-disciplinary reconsideration of Aristotle rhetoric”<sup>48</sup> or as „art comprising the action and the verbal or written communication, respectively as theoretical and practical aggregate for influencing the receiver's opinion, from a double perspective, psycho-theoretical and pragmatic”<sup>49</sup>, becomes a constant dialectics of the European culture the resurrection of which, has come up, in the 20th century, with *integrating models on all levels of knowledge and educability*. The didactic rhetoric is structured as a special neo-rhetoric, subordinated to the general rhetoric as a science of human interaction and as art of the transfer of ideas. It *aims to educate* from a pragma-didactic perspective, the teaching-learning process becoming a „form of intercultural and inter-linguistic mutual mediation, of negotiation between the educational agents”<sup>50</sup>. By the speech restructuring of the new *functional didactics*<sup>51</sup>, based on remediation and support intervention and on a interdisciplinary conception on the teaching process, the didactic rhetoric makes the changeover from an approach centered on the task to the approach centered on the pupil, in consensus with the rapid social changes and with the diversification of the learning methods. It tries to stimulate the desire of the pupils, not to pervert it, targets their freedom and not their blind obedience, tries to stimulate the pupils

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<sup>45</sup>Stéphane Martineau, (2006), *La dimension persuasive de la communication dans la relation éducative en contexte scolaire*, LADIPE et CRIFPE, Université du Québec à Trois – Rivières, p. 3.

<sup>46</sup>Mircea Breaz, (2013), *Retorică și discurs tautologic în comunicarea didactică persuasivă*, ASCR, Cluj-Napoca, p. 14.

<sup>47</sup>D. Huisman, *op. cit.*

<sup>48</sup>Al. Săndulescu, (1976), *Dicționar de termeni literari*, the Publishing House of the Academy of S.R.R., București, p.292.

<sup>49</sup>Mircea Breaz, *op. cit.*, p. 27.

<sup>50</sup>*Ibidem*, p.86.

<sup>51</sup>Michel Minder, (2011), *Didactica funcțională. Obiective, strategii, evaluare. Cognitivismul operant*, ASCR, Cluj-Napoca.

through affective involvement, is criticizes the others and itself, being aware of the slippages that can result in the ideologization of the educational act. The importance of knowledge and the mastering of the rhetorical instruments in drafting and analyzing the educational speech results from at least three main research directions resulting from the specialty literature: the emphasis of the rhetorical-discursive mechanisms in the didactic conceptualization; the analysis of the rhetorical –didactic methods of influencing the audience in the educational environment; the configuration of a didactic stylistics, i.e. of the intellectual or conceptual didactic style. For instance, among the rhetorical attributes of the didactic speech there are known, in general, the main *persuasive virtues*<sup>52</sup>: *clarity* as the resultant of the attribute of terms, *pithiness*, *artlessness*, *simplicity*, and *conciseness*. Moreover, considering the fact that the „teacher is a specialist in the human behavior, whose duty is to entail highly complex changes in a material – that is itself extraordinary complicated”<sup>53</sup>, the didactic rhetoric is part of perfecting the means by which the modern didactics avoids the pedagogical empiricism, the methodological eclecticism and the scientific manipulation of the conduct, and the teacher is asked to leave his/her role of knowledge transmitter, for becoming an organizer of learning contingencies, through the orientation and control of behavioral changes, towards the targeted direction. In this context, the didactic speech is built based on the communicative, discursive and rhetorical skills of the teacher, which presupposes the awareness of the typology of arguments and the mastering of the argumentative strategies, the use of figures of speech <sup>54</sup> etc. The inclusion of the rhetoric dimension allows the teacher to have a hierarchical, global and coherent representation on how the didactic speech is organized and on how it works and allows him/her to create integrated pupil-focused activities, understanding the pupil in his /her making. For example, the educator in the preschool education has the noble and difficult task of developing and educating the child's language, for preparing her for the school stage, in parallel to the child's initiation on the language of sciences and arts. The kindergarten is, in the same time, the first place for the child's social interaction, the stage that has to start the building of child's identity, her interaction outside the family environment, which corresponds to the beginning of her awareness process of the *self* as being different from the *Other*. The linguistic skills aimed to be reached at the end of the preschool stage unite to the socio-cultural and pragmatic skills, mediated by the language development, which render possible the meeting with others and reduce the effects of the *cultural* shock caused by the *rite of passage* from the stage of the child spoiled by the family to the stage of initiation into the school responsibilities. The rhetorical skills of the educator shall allow the child to create a enabling and securing environment, which would stimulate verbal interaction and the evolution from the action language to the description language.

### 3. Conclusions

The presentation of the main features of the didactic speech and of the pragma-didactics, as a form of encounter between the language sciences and the education sciences, does not represent a research *per se*. The ideas and reflections above-illustrated are part of a more complex research study, in progress, attempting to

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<sup>52</sup>Mircea Breaz, *op. cit.*, p. 15-28.

<sup>53</sup>Michel Minder, *op. cit.*, p. 19-20.

<sup>54</sup>Aristotel, (2004), *Retorica*, Editura IRI, București.

demonstrate the need for introducing rhetorical elements in the classes of Language and communication in the preschool education didactics, in the classes of Didactics of teaching the language and literature in the elementary school education, as well as in the classes of Romanian Language and Literature for children, in the initial training of students, as well as the need for introducing a class of Didactic rhetoric, for the life-long training of professors. Individually, the experts in preschool and elementary school education sciences shall be able to address personal interrogations regarding the construction of their own didactic speech, from the perspective of both creation, as well as interpretation of the same. In a broader plan, the discursive and rhetorical skills of the experts in the preschool and elementary school shall offer them a transdisciplinary vision over the teaching-learning process, in accordance with the current educational paradigm.

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# Dimensions of interdisciplinarity and transdisciplinarity

## in the study of literature

Ramona-Elena Tutunaru<sup>55</sup>

**Abstract:** Designing teaching-learning activities from an interdisciplinary and transdisciplinary perspective brings new and interesting overgrowth, merging between fields of knowledge. This approach requires the presence of notions of collaboration, connection between scientific subjects (interdisciplinary perspective), integrated treatment (transdisciplinary perspective), the aim being to assist students in understanding reality in its pure complete form. Literature but also the other arts are products of the author's creation, but also of the reader's, viewer's experience. The relationship between literature and folklore, painting, music, theatre, film, places the teaching approach on new coordinates. Joining of the arts causes the production of novelty, generates suspense, curiosity, cultural enrichment. The use in Romanian language and literature classes of elements belonging to other spheres of art brings more knowledge, increases learning motivation, interest in reading, the involvement of the student in the educational process.

**Keywords:** transdisciplinary, interdisciplinary, literature, music, film.

### 1. Defining the concepts of transdisciplinary and interdisciplinary

According to C. Cucos (1996, p. 77), "interdisciplinary is a form of cooperation between different subjects on an issue whose complexity can be captured only through convergence and prudent combination of several points of view". Interdisciplinary implies "dialogue" between the independent content of several subjects, whether they belong to the same curricular area, or to different curricular areas. G. Văideanu (1988, p. 87) believes that interdisciplinarity "implies a certain degree of integration between different fields of knowledge and different approaches, as well as the use of a common language, enabling conceptual and methodological exchanges".

Interdisciplinarity can refer to a theme, a topic suitable to be approached from several perspectives, angles, opening research involving different areas of science, transfer of concepts, methods and processes, but also implies the presence of solid briefing, general and specialized knowledge, complex and integrative thinking. In today's society, both the interdisciplinary approach and the transdisciplinary one are a necessity, and the organization of the learning content from this perspective is a natural necessary fact. We believe that transdisciplinary teaching-learning is a prerequisite for the realization of the concept of modern education, and teachers who address the educational process from this perspective actually adapt to the demands of the moment, feel the pulse of reality, keep pace with society, contributing to the unity of the educational approach.

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Education focuses on man considered as a whole, as a unitary being to be developed in its entirety. This vision on education requires the presence of transdisciplinarity, which involves the transgression, cancellation of the borders of school subjects, unity being its fundamental principle.

The term "transdisciplinarity" was coined by Jean Piaget in 1970. "Transdisciplinarity concerns - as indicated by the prefix "trans" - what is at the same time across subjects, in the different subjects, and beyond all subjects. Its goal is understanding the present world, one of its imperatives being the unity of knowledge" (Nicolescu, 1999, p. 53).

In a world so complex transdisciplinarity can only be welcomed, its presence serving to positioning teaching on the coordinates of the reality to which it belongs.

## **2. Dimensions of interdisciplinarity and transdisciplinarity in studying literature**

Călinescu is the one who used to say that "the arts are communicating vessels". They are beauty in all its forms of expression. Literature, painting, sculpture, music, dance, etc., they all have the same objective: the transmission of aesthetic emotion. Themes, motives and universal symbols represent a pool of all the arts, each with its own means of expression: literature uses words, language; painting "speaks" through colours; sculpture takes shape in stone, wood, bronze; music expresses itself through sounds; dance involves rhythmic movement. All artists, regardless of the field they express themselves, let themselves be inspired and challenged by reality, life, they themselves generating infinite replicas of the original model.

Given the fact that the arts, becoming school subjects, could have a common vision of teaching and learning, the presence of interdisciplinary, transdisciplinarity within the classes of Romanian language and literature is a topic we want to look into. Roland Barthes, in *Lesson* wrote: "If through I do not know what excess of socialism or barbarism, all subjects should be expelled from education with one exception, the literary subject should be saved since all sciences are present in the literary monument".

### **2.1. Literature and folklore. The folk ballad**

From the perspective of literature, the ballad is defined as "species of civilized or folk epic poetry, often including lyrical-dramatic sequences, with heroic, fantastic, historic, legendary, family topic; characters with exceptional qualities; conflict between the forces of good and evil" (Cretu, 2007, p.44). It is also considered to be "a narrative poem on heroic, legendary, fantastic themes, present in folklore (*The Little Ewe, Master Manole*) and cultivated by poets like Vasile Alecsandri, George Coșbuc, Topîrceanu etc." (Petraș, 1992, p. 23). The definitions above contain the features of this literary genre whose connection with and origin from the folklore is undeniable, especially as the lyrics of the ballad are sung or recited sometimes with accompaniment, are anonymous and collective creations, their artistic content and structure introducing them in the scope of the universal legendary epic.

Analysing the structure of folk ballads, like in fairy tales, we find initial, middle and end formulae that define the poetic frame of the narrative, the trend of the folk bard being to set real limits to any fabulous motif. The median formulae mark the beginning of another episode or introduce another hero into the scene, generating a vivid episodic succession. The final formulae restore the natural order of nature or can be humorous formulae "because ballads

have a generally optimistic end, the singer ends with the image of the porch party or of the heroes' wedding (ibid, p.41).

Ballads, whether civilized or folk, communicate emotions, discreetly, but full of content, and this through an event that mediates the communication of feeling. The event is often a local one, presented as an approximation.

## **2.2. Interference between literature and painting**

### **The literary description – the portrait**

Ecaterina Cretu (2007, p. 31) defines the literary portrait as a "description in verse or prose showing the physical and moral characteristics of a real or fictional being. The portrait can be made by narrator, by other characters or it can be reconstructed from the actions, behaviours or words of the characters, or from the relationship between them". However, Ion Coteanu states that "expressive (literary) descriptions are based on personal impressions and opinions, they do not explain but strive to make us feel the beauty, greatness or, if necessary, the ugliness of what is described" (Coteanu 1990, p. 97).

Considering the involvement of the transmitter in painting the aspects revealed the description can be: *objective* - when providing information on objects, people, etc., and *subjective* - when the impressions of the one who describes are expressed directly or are just suggestions. On the other hand, the artistic processes, as particular ways of perceiving reality by the creator self, can be: of seeing, re-creating another universe with a certain affective value, of expressing own artistic visions, of sensitizing the receiver to what it is described. The portraits are made using solely figures of speech, which is a means of differentiating the character characterization from the portrait.

The portrait is a description depicting the physical and moral characteristics of a person, individualizing it. When a person appears in a literary work, it becomes a literary character. Thus, the portrait, from the literary point of view, is the image of a literary character and generally contains details concerning the physical appearance, clothing and characteristic traits of the character. These can be qualities or defects manifested through gestures or tics. The portrait also refers to the habits of the character described, which underline its personality. There are also portraits that can be real, ordinary, portrayed objectively and belonging to scientific works. Depending on the type of features highlighted, the portraits can be physical if they project the outward appearance of the character, the physical appearance, or they can be moral when relating to the character's moral traits.

Whatever the type of portrait is, the characters have the key role in the structure of the literary work, because authors create true human types, assigning them dominant traits. At the same time, the characters are the carriers of the message of the literary work, and, implicitly, of the author. Thus the author's attitude appears expressed differently from one character to another, closely related to the moral values the characters represent.

### **The literary description – the literary tableau**

Description as a descriptive monologic speech corresponds to the mode of presenting in writing places, beings, aspects and phenomena of nature in an expositive manner, like painting. Although the term *tableau* brings to mind a work of art, a literary description representing a corner of nature, it is a literary picture, as Victor Drujinin states in his work, *Operational Concepts*: "the tableau is a form of description, as an exposure mode, which presents,

in verse or prose, a particular aspect of nature in broad suggestive lines, scenes or other aspects of social life" (Drujinin, 2007, 196). In a picture the relationship between man and nature can be suggested, and nature can be humanized by means of artistic expressiveness, focusing on the role of significant details with a particular message addressed to the reader. "In epic or lyric poetry, the term tableau – whose meaning is transferred from painting - indicates the revelation of images significant for a particular configuration of elements" (Cretu, 2007, p.30). Thus, the space described can be caught from the general elements to the particular elements or vice versa, suggesting the mood, structuring the space around the central idea, grading the background to the foreground or vice versa. Presenting suggestively and plastically the features characteristic to a corner of nature, the literary description enables the author to depict the aspects that impressed him/her, offering a personal view on the reality transfigured through the filter of their own imagination. Through this type of artwork, the author seeks to arouse strong aesthetic feelings and emotions in the reader's soul, making the reader join in the spectacle of nature.

### **2.3. Poetry and music**

Music and literature have often been perceived as having an indissoluble mysterious unity, due to the common traits that the two arts share: rhythm, measure, emotion, lyricism. Poems contain a lot of music, and music incorporates poetry. Poetry comforts, upsets, lifts or drops, heats and sometimes cools, distresses but equally calms and appeases, intoxicates and awakens the human soul. There are states and feelings that music can express to the same extent by serious or high tones, acute, specific vibrato, alert or gentle rhythms. Sometimes through poetry one can identify a strong personal message, at other times, a general human one; it is for glorious or distressful times, with impact on all those who enjoy its essence.

Plato considered music to be a moral law with implications for thought, imagination, life itself. Poetry is music of the mind, and music is poetry of the soul, they complete and overlap each other, creating a unique indivisible symbiosis. Both poetry and music generate the harmonization of personal values in a socio-human model, a continuous individual process of spiritual self-perfection of personality through the many forms of contact between the two arts. Poetry through music is a way of reflecting through auditory images / sounds of the universe in which the individual manifests itself as a component. Therefore, the syncretic study of the two arts through teaching applications contributes to developing the proper attitude towards the artistic aesthetic values and to creating the aesthetic ideal, living high emotions before the beauty of the artwork.

### **2.4. Dramatization – the scenic representation of the epic text**

To illustrate the interdisciplinary aspect of literature with theatre, we consider it appropriate to note that the dramatic show is the scenic representation of the theatre plays before the public. The theatrical performance involves a mix of arts: literature, stage design, architecture, the actors' acting.

About the dramatic genre, Florica Bodiştean (2006, p.213) states that it is a mixed genre, "probably subsequent to the lyrical and narrative, using both their subjective and objective means, the dramatic text was the type of speech that first stirred a theoretical interest. The dramatic work, thanks to the fact that it involves a potential translectural use, could be considered rather as a text belonging equally to two different systems: literary, covering

and exceeding all the specific discursive requirements, and theatrical, operating as a central element or rather as an initial one which is complemented by other semiotic systems and transposed from the written dimension into the oral one.” Regarded as a literary work, the dramatic text has the same basic components as the epic work: action, characters, time and space, conflict etc., only that the dramatic requires particular coding through a more synthetic, more illustrative and more generalizing image on humanness.

Therefore, dramatization involves converting an epic text into a theatre play with the following composition: *acts*, divisions in the plot; *scenes*, subdivisions of acts; *tableaux*, as forms of describing the space, characters or moments of the plot. The main exposure mode in the dramatic text is the dialogue alternating with the monologue, the narrative or description appearing in the stage directions, the directions given by the author of the dramatic text with a view to staging the plays.

The dramatization being applied in the Romanian language and literature classes, it contributes to improving students' reading techniques, stimulating their interest for the artwork, while helping them to express their personality. Based on dialogue, an interdisciplinary simulation game will be attempted, the students becoming characters, actors, playing the roles assigned to them, according to the perception they have on the characters' structure.

## **2.5. Narration and film**

In 1895 the Lumiere brothers performed the first cinematographic show with an audience, and since then the film has had an incredible evolution, at present exceeding the other arts, if we speak of its success to the public. The relationship between film and literature relates to several coordinates. In its evolution, the film makes use of the innovations in narrative techniques, getting to influence literature itself.

If we note certain common coordinates, we mean: compliance with the plot succession in classic narratives and movies, but not in the modern ones; the character analysed from multiple perspectives or just from one perspective, that of the narrator or director; alternation of parallel scenes; the technique of suspense; linear, round construction; insertion of other literary texts or films in the work discussed, be it literary or cinematic; panoramic vision.

The film not only exceeded the other arts, from the point of view of the number of spectators, but it has gained increasing autonomy in its evolution. The new screenings differ more and more from the literary text, so that it has become a practice that the cinematographic work should not be faithful to the literary work it represents, becoming a work of art in itself, not just a tool of the literary work.

Regardless of fidelity to the literary text, the film or theatre show is a syncretic art. This, as opposed to the theatre, has as an object the instrumentalised image, which depends on certain techniques for encoding and decoding the message. The film is not just about the manifestation of the actors' act on a movie set by capturing frames and scenes and afterwards running them before the audience. It is much more than this. It's the result of titanic montage work, where the montage of scenes takes place to obtain the final cinematographic work, whilst achieving perfect symbiosis with sound and music, embodied in the soundtrack, acting, and text.

### **3. Research methodology**

#### **3.1 Objectives and hypotheses**

The study involves a set of four lessons in Romanian language and literature, at secondary school classes, the concept of transdisciplinarity being integrated in their design and performance. Specifically, what is envisaged is the observation of the impact the presence of the film has on students, on the process of teaching and assimilation of knowledge, the screening being based on a literary work that the students have to study. Thus, in the Romanian language and literature lesson with the theme *The hatchet* by Mihail Sadoveanu, the teacher introduces watching the film of the same name, directed by Mircea Muresan, which took place in three 8-grade classes at “Andrei Saguna” Secondary School of Deva, while in other three 8-grade classes at “Andrei Muresanu” Secondary School of Deva the mentioned previously literary text is studied traditionally, i.e. without watching the film.

Establishing the research objectives

- the analysis of the effects of the syncretism of arts in the teaching-learning activity;
- the relationship between literature and other arts potentiates knowledge, captures students' attention and interest to a greater extent.

Setting the research hypotheses

1. The presence of other arts in the Romanian language and literature lessons has positive effects on students;
2. Using the screening of literary works in the teaching-learning activity, the presence of dramatization, increases students' interest in reading.

#### **3.2. Research procedure**

The lot investigated

It was made up of 69 8-graders aged 13 to 15 years old from “Andrei Saguna” Secondary School of Deva. Specifically, we have been working with three 8 grade classes considered experimental classes, and 63 students from “Andrei Muresanu” Secondary School of Deva, i.e. 3 control classes.

Research methods and tools

The method of systematic and independent observation was used, 2 formative assessment tests, the questionnaire method. The questionnaire included a total of 12 questions, formulated in accessible terms.

#### **3.3. Data analysis and interpretation**

We believe that the approach of the literary text from the transdisciplinary perspective is beneficial for developing perception skills of the literary text. This, in conjunction with the skills, abilities and competencies specific to other fields of art: literature, music, theatre, film would increase pupils' interest in reading.

Based on these considerations, we conducted the following teaching endeavour at the experimental classes. A first activity carried out was watching the movie *The Hatchet* directed by Mircea Muresan, and then we asked the students to imagine another outcome of the novel. Another activity was materialized in designing some short plays focusing on Vitoria's anxieties before deciding to set off in search of her missing husband. The family

discussions, the ones with the two children and Mitrea, the servant, with the priest and Maranda, the old lady, with David, the merchant were all pointed out, not only based on information provided by text, but the script was completed by the result of the students' creative spirit, through teamwork.

To check students' progress, periodic tests of formative assessment were applied, monitoring the level of knowledge acquired, of creative thinking. Another evaluation method applied was the systematic observation, as well as filling in the self-assessment questionnaire (classification scale).

At the end of the learning unit, we applied a self-assessment questionnaire to the pupils in the experimental and control classes, which was aimed at:

- students' interest in the Romanian language and literature;
- students' participation in activities during class;
- students' attitude towards the activities performed in class;
- students' involvement in activities outside the classroom designed to stimulate interest in reading;
- students' independence in solving tasks;
- students' progress made during the observation period.

We used an assessment scale, awarding:

- for low +;
- for average ++;
- for good +++;
- for very good ++++.

Table 1: Percentages obtained by experimental and control groups

Classes	<i>Very good</i>	<i>Good</i>	<i>Average</i>	<i>Low</i>
EXPERIMENTAL	24 (34.78%)	18 (26.8%)	15 (21.73%)	12 (17.39%)
CONTROL	18 (28.57%)	12 (19.04%)	18 (28.57%)	15 (23.8%)

Comparing the results, we observe the following:

- 34.78% of the students in the experimental class and 28.57% of the students of the control class were rated *very good*;
- a percentage of 26.8% of the students in the experimental class and 19.04% of the students in the control class were awarded the grade *good*;
- average level: 21.73% - experimental class, 28.57% - control class;
- low level: 17.39% of the students in the experimental class and 23.8% of the control class.

Applying these means of assessing and quantifying the results allows immediate observation of errors, difficulties in receiving and interpreting, in expressing reflective thinking, in *personalizing* the text, in getting involved

in the act of reading. Also, according to the results, they are being improved step by step and the teaching endeavour is being adapted, as well as the quality of the methodology applied is being increased.

The summative assessment at the end of the unit *The novel* has demonstrated significant progress of the students in the experimental class, which, by comparison with the control class, was higher.

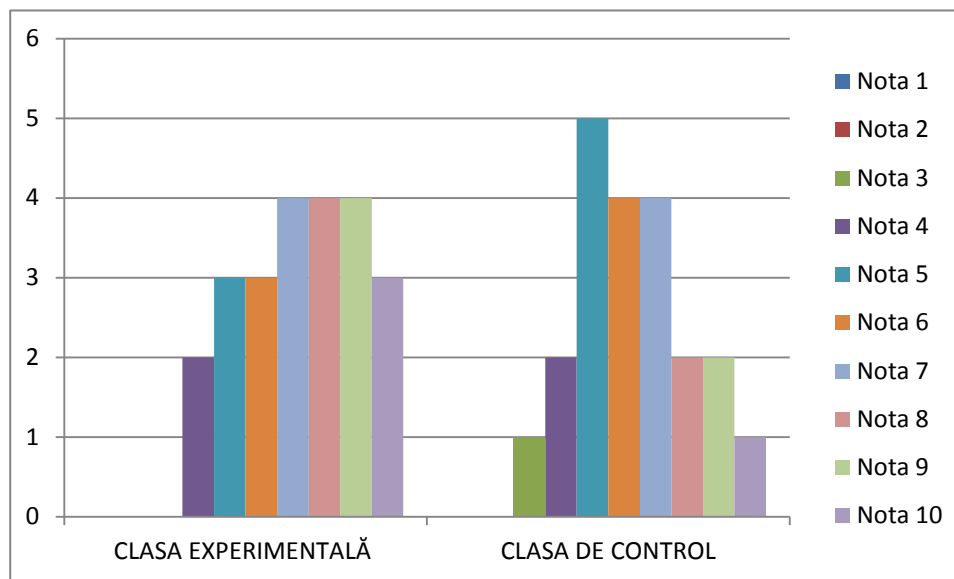


Figure 1: Comparison of frequency pyramids in experimental and control classes

Analysis of the results of the experimental research has led to the confirmation of the working hypotheses: the efficiency of the reflective reading moment, of the techniques of literary text interpretation and understanding, of the use of active-participatory methods. These have led to the optimization of the educational process by contributing to the students' personality development from several perspectives:

- From the *cognitive* point of view, it has enriched the cultural horizon of the students included in the sample studied, showing them events from the life of the universe and of human communities;
- From the *educational* point of view, it has given students examples of high moral conduct, presenting types of behaviours that urge them to reflect, to distinguish between good and evil and to follow the positive path;
- From the *formative* point of view, it has developed students' thinking, imagination, creativity and communication skills, their interest in reading; it has stimulated their desire to know the reality, enriching their spiritual life, cultivating their positive features at the same time.

#### 4. Conclusions

To fulfil the educational goal, namely to foster the development of a free and creative personality, able to face the demands of contemporary society, it is desirable that the teacher of Romanian language and literature should adopt the most modern teaching methods to meet the fulfilment of short or long term objectives. Addressing the contents from a transdisciplinary vision is an effective means through which the teaching - learning - assessment activity creates an environment in which each student can develop their imagination, creativity and ability to work in teams or individually. The focus is switched to the idea communicated in theatre, film, music or painting, but also on



how these concepts are communicated. The Romanian language and literature teacher does not need to be a scientist specialized in all these areas, but they need to coordinate the work of the pupils and to put them in a position to identify the elements of language used in these arts and to discuss how these elements contribute to the receipt of messages. The teacher's role is to familiarize students with the different ways in which the world communicates and manifests itself.

From the methodical approach made, it was observed that the advantages of the transdisciplinary approach aim at a particular phenomenon, in a global perspective, in all its relations, in the perspective of lifelong learning, enabling the application of knowledge in various fields.

Therefore, the objective of this approach has covered the students' ability in perceiving different types of artistic communication, varying ways of knowing the world and the self in relation to different aspects of the reality presented, forming the aesthetic and analysis tastes towards the variety of means of artistic expression. In addition, reporting to the related fields of literature was done in terms of the literary text, after knowing it well, by highlighting the mechanisms of the literary work.

Regarding the experimental research - *stimulating reading in secondary school students* - a model to approach the narrative literary text was set, through which studying literary works in secondary schools is perceived as openness towards the creation of the communicative competence with oneself and with the others. Literature offers the possibility of exceeding the traditional way of acquiring knowledge, applying it in new sequences with the purpose of acquiring the skill of creating attitudes, feelings and emotions.

"Disciplinarity, multidisciplinary, interdisciplinarity and transdisciplinarity are the four arrows of one and the same bow: knowledge" (Nicolescu, 1999, p.55-56).

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# Interdisciplinary strategies in developing oral comprehension skills in preschool education

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**Abstract:** One of the tasks of preschool education is to lay the foundation of the oral comprehension competency. Through specific activities, didactic strategies and establishing development benchmarks, the preschool teacher provides support in understanding messages transmitted orally and prepares the next step, comprehension of written texts. The teaching approach has to be coherent, gradual, progressive, oriented towards achieving goals such as the understanding tasks, the reception and personal interpretation of literary and nonliterary texts. This article proposes some concrete strategies to deepen understanding adjusted to the age particularities of preschoolers, preschool strategies that practitioners can apply them in their daily activities with groups of students.

**Keywords:** semantic integration, comprehensive strategies, textual reception, narrative language, logical and chronological connectors

## 1. Conceptual framework

The first signs of understanding occur during the first months of life, when the child is communicating with those around him. The comprehensive side of the language develops very early, even before the child is able to express himself through words. This gap between skills is significant and continues throughout development.

Several recent studies focus on the strong correlation between oral comprehension skills and the approach of written language skills. Knowledge of vocabulary, mastery of morphology and syntax, capabilities approach to textual organization will play a fundamental role in understanding by preschoolers of texts read to them.

The comprehensive dimension of the language is approached starting with preschool, although this linguistic activity is transparent to the child. To understand it is not enough to listen, you have to develop an inner cognitive activity called semantic integration of information provided by the text or the message, which is reflected in a mental representation. This integration links new information to prior knowledge. Training comprehension requires a phased approach that can be structured by age groups. Thus, smaller children are trained to understand a simple request made in an unambiguous situation, to listen quietly to a story or brief poem and understand these texts, demonstrating their understanding by providing answers to some simple questions related to the text they heard. Guided through images by the teacher, the child will be able to reformulate some elements of the story he heard. Another activity, specific small children is reading the images. The child will be able to observe a picture book and express their observations in words.

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The 4-5 years old child will be able to understand the instructions provided by the teacher, at least when they are face to face with an adult. Oral texts will be more complicated than the ones in the previous year, so the child will be able to understand the storyline of an event read or narrated by the teacher, where logical and chronological sequence of the scenes will be associated images.

For 5-6 year old children the aim is to understand guidelines and explanations provided collectively. The child is expected to understand a narrative read by teacher and be able to retell it, respecting the logical sequence and timeline, to interpret or to transpose it into a puppet show, dramatic play or drawings. In this group texts will go beyond literary ones. The teacher will also read informative texts, documentation, so the student will be able to make connections between the questions posed and what was presented in class. Before beginning school the student will be trained in receiving lyrical texts, in extracting keywords, and expressing the impressions and feelings experienced through drawings or paintings.

One of the challenges of kindergarten is to train students to understand the guidance provided by the teacher. They are part of the directive language and they trigger questions and clarifications. Collective guidance are hard to use during preschool. The difficulty of using them is that they are only heard in exceptional cases since, long after the start of kindergarten, the child is not capable of decentring, managing to listen and respond only if he is addressed individually. At this age, children do not yet understand the role of this act of specific language.

In formulating tasks, the teacher will pay more attention to content and expression. In kindergarten, more than at school, where students can reread workloads, the teacher should enunciate clear, concise and precise indications. The terms used will be varied ("color", "cut", "paint") and formulation of statements like: "Arrange your drawing!", "You need to arrange drawing!", "You Please arrange your drawing. " will not be neglected. By rephrasing the teacher teaches the child to rephrase.

The 3-4 years old will understand a simple workload in an unambiguous situation. By capturing the child's attention (through eye contact, through touching the child's shoulder with his hand) the teacher will achieve the desired effect. To obtain the desired feedback, the teacher will formulate a single workload, which will concatenate a second task only after the first task was finished. There are rare cases where students can conduct two activities associated through the temporal connectors "then", "after". In the case of 3-4 year olds the teacher is forced to clearly state the recipient, avoiding impersonal expressions such as "It will be done", "We will do."

The 4-5 years old student is already able to understand the tasks outlined by the teacher when they are face to face with the adult. During the year the difficulty of the tasks will progressively increase and tasks will become increasingly complex. The vocabulary used in formulating requirements is increasingly complex and formulations will be like "Sort by color!", "Unite!", "Cut on the dotted line!". Even at this age the teacher addresses each student using her name and asks him if he understood what he has to do. Towards the end of the year the teacher can evoke objects and events that occurred previously and in other areas than where the action is performed or ones to be carried out later. For example: "Johnny, when the break is over, you will bring this message to the schoolmistress.

Until then I will put it on the desk. ". We note the use of the first name in the beginning of the phrase and the use of the personal pronoun. Spatio-temporal landmarks have the same importance.

Students can be trained to perform multiple tasks through the repetition of the same tasks as in the following example: "I will trace the outline of my hand, then give the drawing to my neighbor.", "On the drawing of the hand that I received I will draw a ring on the index finger then pass the drawing to my neighbor. ", " On the drawing of the hand that I received, I will colour the fingernails, then pass the drawing to my neighbor.". This gaming situation trains the students in understanding a series of simple successive tasks which they should not only listen to but also execute in a sustained manner.

With older children complex phrases that will initially be decomposed and possibly reformulate can be used. Guidance becomes increasingly lighter, because children understand collective guidance, which means that their attention should double. The difficulty, even for the older ones, lies in the complexity of the task, being influenced by the number of activities, the relationship between them and objectives. If the guidelines are too complex, they will not be respected. The teacher will take the chronological chain of actions into account. A phrase such as: "You will stick the pictures after you've arranged all of them, numbering them to start", which sets out all the components of a task, but in reverse order of their realization is difficult to memorize and therefore to achieve.

In kindergarten, more than at school, where students can reread exercise guidelines and requirements, special attention should be paid to brevity and precision. Phrasing of the questions should be anticipated starting with the moment when the lesson is prepared.

## **2. Interdisciplinary strategies for developing oral communication**

A preschool child only has access to a literary text through an adult which reads or tells him a story. This mediation brings some support in understanding the text. Drawings, photographs, pictures as well as the adult's gestures and physiognomy facilitate the understanding of the message. An expressive tone captures the attention, carries more meaning and also stimulates the child's memory. During storytelling or reading, the teacher's expressivity becomes a language model. A slow and articulate flow, phonetic emphasizing facilitate access to meaning. Therefore the teacher's expressivity, his way of narrating and reading represent a path towards understanding. It's desirable for the teaching approach to be a progressive one. For small children text comprehension is supported by external elements (puppets, pictures, objects, albums with illustrations). Albums with illustrations are a particular case, as some albums are designed to be complementary to the text and illustrations do not allow the independent reading of the text. Although these albums have their usefulness, even in training understanding, it is desirable that teachers choose autonomous texts. In most cases, the intermediate children and especially older children need to understand the messages of some texts and narrated stories without any form of support besides the teacher's voice. Even when the teacher chooses to use teaching materials that facilitates understanding of the text, the text will be read several times, and one of the readings, most often the last, will be done without support.

Choosing text is crucial in training understanding. This choice will be made according to the topic, it will appeal to the student's cultural references, it will take into account how to narrate, the complexity of the narration and the vocabulary used.

Narrating an event is not an easy exercise for the teacher addressing the children, nor for the child that tells something, whether to an adult or to the other children. The act of narration requires fluidity, involves a first contact with the text, familiarizing one with it, assimilating and ordering spatiotemporal guides and the logic of the events, clarifying causal relationships. In the case of narratives without didactic support the narrator's attention is directed to the listeners. The narrator tries to capture the gazes, to regulate his gestures and voice modulations, to make adequate breaks and accelerate some narrative sequences to achieve interaction with the class and receive feedback. A story means to appeal to orality as stories are related to the oral tradition. Another approach is required when reading. Reading aloud directs the reader's gaze to the text pages. Readers and listeners lack eye contact and, therefore, are to some extent separated. This distance implies a form of isolation and introspection, leaving room for personal reflections.

Understanding involves comments, questions, nuances, nonverbal elements. The teacher's role is that of mediator. He maintains an atmosphere opened to questions, stimulates different interpretations, trains critical thinking and provokes debate.

Items that facilitates understanding texts are: refreshing knowledge acquired previously to achieve consistent links between stories of the same author or the same collections and formulating hypotheses and questions starting from the title, the names of the characters, two or three suggestive images. The student is challenged to anticipate what will happen on the next page by using the chronology of the events and the implicit knowledge of the text, to imagine what will happen in the story, based on all the factors mentioned at the beginning of the story.

Guided by the teacher, the student exceeds the first form of narrative understanding by deepening and expressing a multitude of perspectives. The teacher can help deepen understanding through the analysis and interpretation of illustrations, through debate from general questions, through role play (silent or spoken), by expressing critical views, by making drawings that are then presented to the whole group, by recomposing the story starting from the most successful drawings, by making summaries of the events narrated.

To stimulate narrative language development the teacher organizes discussions, directs the confrontation of viewpoints, asks exciting questions, makes children reflect on the questions presented, highlighting agreements and especially disagreements. For the success of such an approach, each speaker must explain the reasoning. Complicating such an activity involves making connections with other books read or listened to, with life experiences or information previously acquired by the children. The aim is not explaining the text, not even when some textual forms are explained, as much as the observation and the use of connectors that organize the text (the teacher can explain the value of words such as "suddenly"). These activities can be evaluated through other activities, such as the continuation of a story after a "suddenly" at which reading stops. Other ways to check understanding are reformulating, with the book closed or open, providing free access to the book, giving rewording a functional value,

through partial synthesis, through requesting summaries, which will be used in the next day's update, through dramatizing stories, through dramatic plays, puppets or mime. The text improvised by the child feeds on what he knows about the characters, about their motives, about the theme of the story. Dramatic play reactivated stereotyped formulas, ensures the transition from indirect to direct style style, even offers the right to speak to a character who has not had this right in the initial version of the story, expresses emotions through body movements that nuance the language, offers coherence to the narrative path. Evaluation of textual understanding may involve transposing the stories in the papers type model in which students can move characters to identify the time and place. Open-ended narratives allow imagining dialogues between characters, a creative approach to default situations so that the gaps in the narrative text can be filled.

Debates after reading a text helps establish relationships between the explicit content of the text and previously acquired information. Systematic organization of such activities leads to overcoming the immediate comprehension of the story, to going beyond the descriptive or explanatory content of a text. In this case, progressivity is essential because the students progress relies on the success of simple situations. Games stimulate deduction, the formulation of relationships between cause and effect, they involve a logical and intellectual journey, they rely on knowledge acquired outside the activity and can only be achieved in small groups, because some students have difficulty expressing themselves in front of the whole class.

### **3. Conclusion**

Acquiring oral proficiency comprehension is therefore a complex process, involving interdisciplinary and global learning activities, the only ones through which the transition from the informative to the formative can be realised. In this case the teacher exceeds his status as a mentor, he becomes a real conversation partner and steps into a new paradigm, that of collaborative learning, of implicit learning, through absorption and impregnation by using tacit connections that today's preschooler needs to be trained to do in order to naturally adapt to the world of tomorrow.

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# Exploring the Vertical Relationship between the Newly- Prepared Math Textbook for the 6<sup>th</sup> Grade and the Math Textbook for the 5<sup>th</sup> Grade\*

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**Abstract:** The objective of present study is to explore the vertical relationship between the newly- prepared math textbook for the 6<sup>th</sup> grade and the same for the 5<sup>th</sup> grade. First, the theoretical principles and available researches are investigated. Then, the concepts of the two books in terms of the four items repetition, repetition with addition, new concepts, and the 5<sup>th</sup> grade-specific concepts are studied. The results reveal that among the concepts, 15.1% are of continuity, 39.9% are of sequence, 30.5% are new, and 12.6% are 5<sup>th</sup> grade-specific math textbook. The vertical relationship between the two textbooks is 56% which is of considerable nature. The sequences “from simple to complicated” and “spiral” have the most and “use field development” has the least usage. Some suggestions regarding the vertical relationship are recommended to amend the books.

**Keywords:** Vertical Relationship, Math Textbook, Continuity, Addition, Sequence

## Introduction

One of the important tasks of the school is to organize activities and learning experiences properly in order to achieve the educational goals in the learners. Type of contents in the curriculum is an important factor in determining the learning process. In many cases, lack of the efficiency and effectiveness of the curriculum is not for inappropriateness of its contents but it is for the reason of setting up and organizing the contents which creates difficulties in the learning process (Taghipour, Zahir 2006).

In organizing learning activities, the relationship between these activities should be considered in terms of "subject" and "time". These two types of relationships are called respectively horizontal relationship and vertical relationship. The horizontal relationship refers to the proper learning activities and experiences in different subjects of a grade (Tyler, 2011, translated by Taghipour). The vertical organization or vertical relationship is the sequence of learning concepts and skills in a subject in different years (Maleki, 2010, p.158).

The vertical relationship of the contents will make to establish a longitudinal relationship between parts of contents so that in this way the learners would be able to learn the subject or the skills through more focusing at different times. Two criteria about providing the vertical relationship of the curriculum contents consist of continuity and sequence. The continuity is repeating the key elements of the curriculum contents (knowledge, concepts and

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skills) in the future periods of that program so that in this criterion the above-mentioned subject is raised frequently during the curriculum contents and the students get involved with it. In sequence or abundance it has been emphasized to the importance of regulating each experience compared to the previous experience so that the future experiences should be more than previous ones in terms of depth and extent (Sobhaninejad & Youselyani, 2005). To organize the vertical contents of the curriculum there are different methods (Maleki, 2009) such as:

**Whole to the part;** this method of organizing is called the design of concepts in which organizing starts with the general concepts and then it proceeds to the partial concepts.

**Part to the whole;** this method first begins with introducing the partial concepts for realizing the general concepts understanding.

**Spiral organization;** in spiral regulating of the concepts some of the concepts, beliefs or basic issues is offered gradually throughout the curriculum without fully and regularly repeating of all learning areas.

**Gradual development of the concepts;** in this method some of the basic concepts are determined and gradually are designed in different environments from closest to the farthest environment. In this method, after determining the concept or concept that is supposed to be repeated it should be decided about getting broader and deeper of the concepts. For example, about knowing of the social environment one method is that the concept expands through developing and increasing the number of people in the social environment and another method is that the concept expands through developing the student acquaintance with the different aspects of it.

**Simple to complex;** in this type of sequence derived from the efforts of Robert Gagne the educational hierarchy requires beginning with the objective concepts and progress toward the mental contents.

by creating horizontal and vertical relationship students can reinforce their activities and learning experiences and can cause unity. On the other side, it will be possible to raise and to develop the concepts broader and deeper (Tyler, 2011, translated by Taghipour; Zahir). About the sequence of content elements Piaget believes that organism will absorb every new experience without any changes in the cognitive structure if it is completely similar to the cognitive structure. If it is different to the cognitive structure, it will change the cognitive structure. Accordingly, if the new experience cannot absorb to the cognitive structure at least to some extent, learning will not be done. To learn more effectively, the information should be capable in absorbing to the cognitive structure. However, they should have enough difference to the cognitive structure so that the changes in the cognitive structure would be necessary. Therefore, in establishing the sequence in the mathematics textbooks contents the new concepts should be similar to the previous contents and to some extent should be new so that their delivery lead to the imbalance, absorption, adaptation and finally proper learning (Seif, 2012). In Azubel theory, the cognitive structure and the changes form the basis of the learning. The concept of "meaningful", is one of the basic concepts of this theory. According to Azubel if a concept can relate to the concepts which exist in the person cognitive structure, that concept will be meaningful. So if the learner can relate the new subjects to the previous ones, his/her learning will be done meaningfully. According to Schunk the learning process is meaningful when new subjects have a systematic relationship with the previous ones. It means that the new subjects expand or change the previous ones. Therefore, for meaningful learning

mathematical concepts, the new mathematical concepts should be enough meaningful for the learner to relate them to the previous ones. About content there is the textbook which is of great importance and valuable in all educational systems in all over the world. The importance of textbook in designing, implementing, evaluating and developing of the educational activities is undeniable (Arik & Kezerb, 2010). In Iran education and educational programs systems the textbook is of great importance so that most of educational activities are done through the textbook and its content (Sobhaninejad & youselyani, 2005). The textbook content is actually part of the objective manifestations of the curriculum and includes knowledge, skills, attitudes and values that must be learned. In selecting and organizing the content of the textbooks it should be considered the principles and criteria that one of them is considering the vertical relationship of the content. The learning opportunities should be organized in which the learned subjects during different years support and reinforce each other and on the other hand the distribution and classification of learning activities in different grades should not be indigestible (Maleki, 2009). The sequence means that the content and learning experiences should be regulated to facilitate the learning process according to the growth and development of the learner particularly his or her mental and cognitive development. Moreover, they should be the basis for all subsequent learning (Taghipour, zahir, 2006). On the other hand, in today society, the role of mathematics in providing the necessary skills to play an effective role in the society as a useful member is undeniable. Because the mathematics deals with observing, measuring, calculating, analyzing, deducing, proving and predicting and as a communicational system helps accurate understanding of data, models and reasoning. Mathematics lead to the growth of order, the ability to classify data, the growth of criticism power, the growth of creativity and analysis power and free the individual from the memory. It has been done some researches about studying the books vertical relationship. According to Rahimnejad findings in 1999 the vertical relationship in junior high school mathematics textbook and guidance school mathematics textbook was poor at that time.

Seiedmousavy (1999) revealed that the vertical relationship between the first to the fourth grade primary school math books was moderate and the vertical relationship between the fifth grade math book and the previous math books was poor. In a study which is carried out by (Fotovat, Moradi, 2007) the results showed that in general all the five primary school math books in terms of sustainability was poor and in terms of the sequence was relatively good.

Schmidt, Chi Wang & McKnight, (2005) studied the content of teaching math and science in the United States through the standards of forty countries which had been obtained by international mathematics and science study (TIMSS). Through studying of TIMSS findings they found that in this study most countries which their scores was better than the United States has observed the cohesion in their educational content. By cohesion they meant to regulate the sequence based on the logical structure of a particular discipline. Considering the importance of analyzing the content of textbooks and the role of mathematics in the various aspects of life, studying of the mathematics textbooks in terms of adapting to the needs and goals and the principles of organizing would be essential. Particularly, the primary school sixth grade book has recently written and it is possible to change this book and the fifth grade book. The results of this study can assist the planners and the textbooks authors in revising and

editing these two books in terms of rational vertical relationship. Thus, the analysis of mathematics textbooks (particularly in centralized educational systems in which a book is written for a lesson to all parts of the country) is raised as a requirement from different aspects and different goals and objectives.

### **Research questions**

- 1) What percentage of the main concepts has continuity (repetition) in the fifth and sixth grade mathematics textbooks?
- 2) What percentage of the repeated concepts has a kind of abundance in the sixth grade math book in relation to the fifth grade math book?
- 3) What percentage of the main concepts has come in the new written sixth grade math book in relation to the fifth grade math book?
- 4) What percentage of the concepts has raised only in the fifth grade math book and has not come in the sixth grade math book?
- 5) How much has been used from each sequence criteria in the vertical relationship between the fifth and sixth grade math books?
- 6) How much is the vertical relationship between the fifth and sixth grade math book?

### **The method of study performance**

The present study is descriptive and content analysis. At first, behavioral goals was extracted from the content of both the fifth and sixth math book. Then these goals were recorded in the goal-content table of each concepts. After writing the goals coding operation was done. First, for each behavioral goals, it was written in front of each goal sample or samples from the fifth grade mathematical book exercises and sample or samples from the sixth grade mathematical book exercises and then according to this samples in one part of the "repeat" section was marked "repeat with abundance", "new" and " " for fifth grade". Putting marks in the abundance section was done based on sequence criteria from simple to complex, the sequence of application development and spiral sequence.

### **Society and sample**

In the present study the population includes the contents of the fifth and sixth grade math textbooks which was taught in the academic years 2012-2013 in Iran high schools. Due to the limited content, the population and the sample are the same.

### **Data analysis**

For data analysis it was used descriptive statistics (frequency, percentages, tables and charts). After coding, the frequency of each four parts of the goal - content table was calculated in mathematics and geometry sections and this frequency was converted to the percentages and graphs by dividing the total number of behavioral objectives. The amount of vertical relationship was calculated through the sum of frequency goals percentages in two parts of repeating and repeating with abundance. Also, by determining each of the sequences abundance and by turning them into percentages and graphs the application of each sequences were determined.

### **Data collection tool**

In this study for collecting the data it was used the goal- content table.

### **The validity or reliability of measurement tools**

For studying the validity the above-mentioned tool was inspected by three curriculum experts and all three experts confirmed the validity of this tool for studying the vertical relationship.

### **The reliability of measuring tool**

The composed reliability formula was used for reliability determining:

$$\text{Composed reliability} = \frac{N (\text{Average agreement between judges})}{1 + [N-1][\text{Average agreement between judges}]}$$

Twenty behavioral goals were selected from the fifth and sixth Mathematics books. After teaching four encoders about vertical content relationship criteria asked them to encode these twenty goals in the goal- content table. After encoding, the percentage agreement between all encoders and the average percentage of agreement between them were calculated. This average was 70 percent. By putting the average agreement percentage between all encoders the composed reliability was obtained 0.93 which indicates suitable reliability for data measuring tool in this study.

### **Research findings**

Table 1 Shows the frequency status and the status of 80 percent behavioral goals in the vertical relationship study of the fifth and sixth math books.

**The first question:** What percentage of the main concepts has continuity (repetition) in the fifth and sixth grade mathematics textbooks?

According to the table 1, from 84 goals of the study, 13 goals; 15.1 percent of total goals in both books have repeated accurately.

**The second question:** What percentage of the repeated concepts has a kind of abundance in the sixth grade math book in relation to the fifth grade math book?

According to the table 1, from 84 goals of the study, 34 goals; 9/39 percent of the total goals in addition to repetition had also abundance.

**The third question:** What percentage of the main concepts has come in the new written sixth grade math book in relation to the fifth grade math book?

According to the table 1, from 84 goals of the study, 25 goals; 30.5 percent of the total goals were new and were particular for the sixth math book.

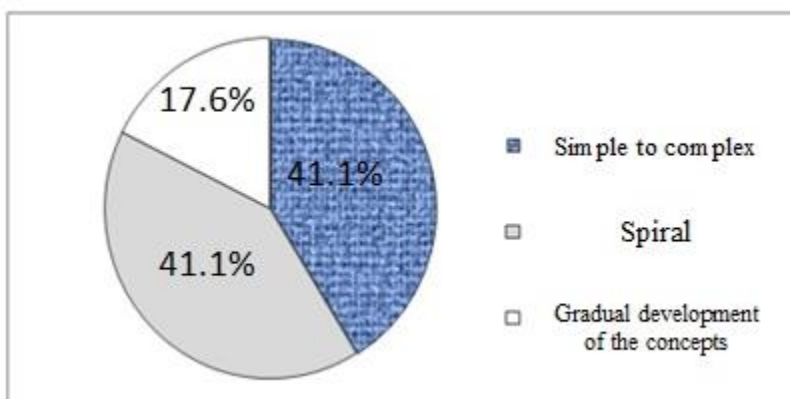
Table 1- the frequency status and the status of 80 percent behavioral goals in the vertical relationship study of the fifth and sixth math books

For fifth grade		New		Repetition with abundance		Repetition		The number of goals	The title of concept	Row
Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency			
1.1	1	-	-	9.5	8	3.5	3	12	Canonical fraction	1
-	-	-	-	-	-	1.1	1	1	Divisibility	2
1.1	1	-	-	4.7	4	4.7	4	9	Decimal Number	3
-	-	5.9	5	-	-	-	-	5	Approximate number	4
-	-	1.1	1	2.3	2	3.5	3	6	Ratio and proportion	5
-	-	1.1	1	1.1	1	-	-	2	Percentage	6
3.5	3	-	-	-	-	-	-	3	Composed numbers	7
-	-	10.7	9	-	-	-	-	9	Statistics and Probability	8
-	-	1.1	1	9.5	8	-	-	9	Correct numbers	9
-	-	5.9	5	1.1	1	-	-	6	Coordinates and symmetry	10
-	-	-	-	4.7	4	-	-	4	Level measurement	11
-	-	2.3	2	3.5	3	-	-	5	Measuring the volume	12
2.3	2	2.3	2	3.5	3	2.3	2	9	Measure the length and angle	13
2.3	2	-	-	-	-	-	-	2	Gram and kilogram	14
2.3	2	-	-	-	-	-	-	2	Measure the circumference	15
12.6	11	30.5	25	39.9	34	15.1	13	84	Sum	16

**The fourth question:** What percentage of the concepts has raised only in the fifth grade math book and has not come in the sixth grade math book?

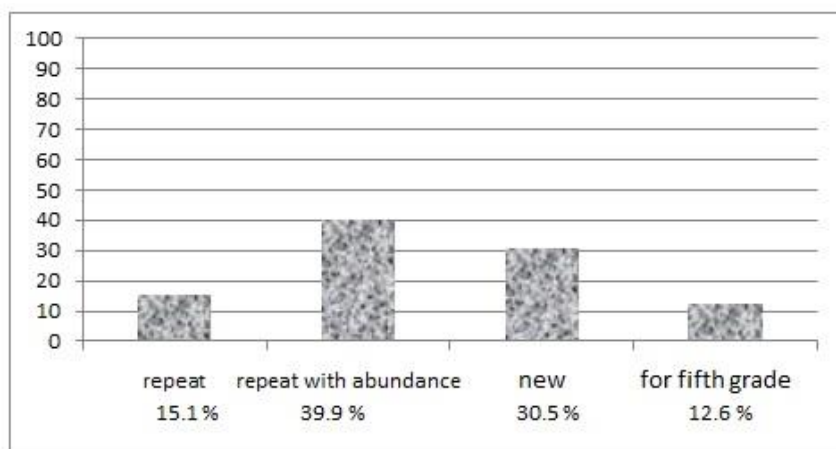
According to the table 1, from 84 goals of the study, 11 goals; 12.6 percent of the total goals were particular for the fifth math book and they has not mentioned in the sixth math book.

**The fifth question:** How much has been used from each sequence criteria in the vertical relationship between the fifth and sixth grade math books?



**Diagram 1. The percentage of using three types of sequences in establishing of the vertical relationship of the new written fifth and sixth math books**

According to the diagram from 34 abundance goals, in 14 goals; 41.1 percent of these goals it has been used the spiral sequence criterion, in 14 goals; 41.1 percent of these goals it has been used the simple to complex criterion and in 6 goals; 17.6 percent of these goals it has been used the development of the application criterion. This means that the two criteria spiral sequence criterion and the simple to complex criterion have the most application in establishing of two books sequences. This result is aligned with Jafary results (2011) which indicate that in the vertical relationship of the primary school empirical books spiral sequence criterion and the simple to complex criterion align with each other and have the most application.



**Diagram 2. The percentage of the fifth and sixth grade math books vertical components. The vertical relationship of new written fifth and sixth grade math books obtains through the sum of the first and the second components**

**The sixth question:** How much is the vertical relationship between the fifth and sixth grade math book?

Diagram 2 shows the percentage of the fifth and sixth grade math books vertical components. The vertical relationship of new written fifth and sixth grade math books obtains through the sum of the first and the second components.

According to the diagram from 84 goals, 47 goals or 56 percent of the total goals have been repeated in the sixth grade math book or have repetition with abundance.

## **Conclusion**

In the conclusion section of this study it should be considered curriculum legitimacies and their learning theories behind it.

In the curriculum legitimacy section it is raised the subject of content cohesion. According to the amount of the vertical relationship of between fifth and sixth math book and the results of previous researches it can be admitted that the contents of these two books in the vertical relationship section have considerable cohesion. As previously mentioned, TIMSS international study showed that most of countries which had high scores in this study in their educational contents that the textbook is also a part of it had observed the principle of cohesion. So, the cohesion between these two books can be positive to move towards international standards.

In the learning theories there are Piaget theory and Azubel theory. According to them the subjects should be organized so that they are absorbed in the cognitive construction of organism. According to Piaget the new subjects should be neither too similar to the cognitive construction which does not make any changes to it nor should they be too far from cognitive construction which does not absorb in it. As it has mentioned in the answering to the questions, some of the concepts of these two books (about 15 percent) which were basic concepts for new learning only had been repeated. This repetition as Taylor says is considered as one of the main and effective factors in organizing the content in terms of being vertical and it consolidates the learnings. After this repetition, a considerable amount of concepts (about 40%), will be repeated and will have enough abundance. This means that they are not quite similar to the learner's cognitive structure nor are they too far from it. Thus, according to the results it seems that the new written sixth grade book largely establishes the necessary link with the students' previous knowledge. Of course, there are concepts which have mentioned in the fifth grade math book but they are not mentioned in the sixth grade math book. On the other hand, some concepts are also mentioned in the sixth math book which has not presented any rudiments about them in the fifth grade math book. Due to the sequence criteria and goal-content table, these concepts are called new concepts. In order to increase the vertical relationship of these two books it is required to make changes in these new concepts.

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# Transdisciplinary approach to case management in Special Education

Anca Luștrea<sup>60</sup>

**Abstract:** Current trends In Romanian Special Education legislation, theory and practice are for the shift of emphasis towards inclusion, which is a goal, unfortunately quite difficult to achieve at present. The educational inclusion process is a complex one and in a permanent development. Such a difficult change of perspective is a lengthy process that includes the involvement of many factors: society, community, scientific authority and practitioners. In this paper theoretical perspectives on inclusion and current state of facts about Romanian inclusive practices are presented. Also, the transdisciplinary model of case management is analyzed and its positive effects on the inclusive process. The barriers occurred in inclusion are analyzed in relation to their possible overrun by applying a transdisciplinary model.

**Key words:** inclusion, transdisciplinary case management, special education

## 1. Conceptual framework

Educational integration is a process that takes place from over 20 years in the context of Romanian education. Current trends In Romanian Special Education legislation, theory and practice are for the shift of emphasis towards inclusion, which is a goal, unfortunately quite difficult to achieve at present.

Special educational needs (SEN) are educational needs of the students which are complementary and additional to the usual educational needs. Students can have SEN if they have a learning difficulty which requires providing additional educational support. There is a paradox in the SEN domain: it is one of the most discussed issues of integration in our days, but a consensus of definitions has not yet been established. In the OECD Child well being module (2012) 34 different SEN definitions are listed, one for each OECD country.

In the UNESCO Revision of the International Standard Classification of Education (ISCED) (2011), Special Education Needs are defined as *‘Education designed to facilitate the learning of individuals who, for a wide variety of reasons, require additional support’*. (UNESCO 2011, p.83)

In the Romanian legislation, SEN are defined as *“an additional educational need of general education and learning process, requiring an adjusted education to individual characteristics and/or characteristics of a specific learning disability and a specific intervention.”* (HG Nr. 1175 /2005, p.7)

In the UNICEF report "Policies on Education for pupils at risk" (Stanciu, 2013) are reported in the year 2012, 697 169 people with disabilities in Romania, representing 3.8% of the population. Of them, Romanian Child Services announced in 2012 a total of 73 216 children with disabilities, which represents 1.73% of all Romanian children. In a

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report by the US National Center on Educational Outcomes (Thurlow, 2009) is estimated an incidence of 13% students with SEN in US public schools. This discrepancy between the proportions reported in Romania and the US can be explained by the fact that in our country statistics only take into account children with certified disabilities or who were registered with the Department of child services, not all children benefiting from supplementary educational services.

The main paradigmatic approaches to disability are the medical and the social models. Viewed from the perspective of education, they have the following implications:

- Special education: Based on the medical model of disability; children with disabilities are perceived "abnormal" opposite to the majority; the focus is put on deficit, recovery, rehabilitation
- Integrated education: It is based on the social model (in which pupils with SEN are perceived as minority), children are integrated into regular schools; benefits from allocated human and material resource, but the child must adapt to the educational environment.
- Inclusive education: It is based on the social model (in which pupils with SEN are perceived as majority), children with disabilities are included with the same rights in schools, community schools are adapting to the needs of all students.

## **2. The necessity of a paradigmatical change**

The predominant model in Romanian education, theory, literature and educational practice, is the medical model. In this model the emphasis is put on defect, deficiency, disability, abnormality and the recovery and rehabilitation of students is targeted. Consequently, the medical model is predominant, the students are being viewed as a minority who must adapt and integrate into the majority. Even in the context of school integration the same concepts and recuperative approaches are used. We can say that in the Romanian education the medical model is applied in an integrated context. Of course, financial and human resources specialized in working with SEN students were allocated, but their educational approach is all about rehabilitation and not toward valuing the specificity of development and adjustment. In order to make the transition towards inclusion the change of theoretical and practical perspective is needed. It is also necessary to change the social perceptions and attitudes towards people with disabilities so that they can be effectively included in regular classes.

Such a difficult change of perspective is a lengthy process that includes the involvement of many factors: society, community, scientific authority and practitioners.

The current legislative framework on integrated education in Romania is a generous one for initiatives of this kind. By law are defined the structures and educational and therapeutic services offered to disabled students in Romania: educational support services performed by the itinerant teacher, psycho-pedagogical support services provided by the educational counselor, speech therapy services performed by the speech therapist, complex evaluation services offered by assessment committees, home schooling services.

A sore point is the financial resources allocated for implementation of inclusive philosophy. An inclusive school is one prepared (both in terms of financial resources as well as human resources) to receive any category of students, both regular and with SEN. In this context, an inclusive school should provide its students all necessary accommodations: the physical environment (access conditions, travel, hygiene, the organization of the learning space, the educational communication (support technologies for visual and auditory communication) and accessible teaching materials.

Human resources needed in order to achieve a successful inclusion presuppose special education specialists: pedagogues, psychologists, speech therapists, physiotherapists, special education teachers, specialized in working with any type of students.

The intervention plan applied in case management of SEN students in Romania includes detection, diagnosis, planning, intervention, monitoring and social integration.

### **3. Case management and models of intervention**

Case management is *"a coordinated and integrated approach to service delivery, intended to provide ongoing supportive care and to help individuals access the resources they need for living and functioning in the community"* (Vanderplassehn et al., 2007, p.2).

Case Management Society of America (CMSA) (2010, p.9) defines case management as *"a collaborative process of assessment, planning, facilitation, care coordination, evaluation, and advocacy for options and services to meet an individual's and family's comprehensive health needs through communication and available resources to promote quality cost effective outcomes."*

Case management is defined in Romanian scientific literature as a *"rigorous working method, which aims at coordinating and monitoring all activities carried out in the interests of intervention and the support of child and his, family in order to develop and fully exploit the potential and resources available to them"* (Gherguț, 2011, p.176). *"This method helps coordinate all actions in various fields (medical, educational, psychosocial) provided by different specialists or institutions..."* (Gherguț, 2011, p.176)

Case management is carried out by a multidisciplinary team, *"a group of different professionals working together in designing, making and implementation of activities best suited to achieve common objectives."* (Vrăsmaș et al., 2005, p.39) . The team members roles are very well defined each of them fulfilling their roles strictly:

- The psychologist - psychological evaluation, counseling for parents and children, psychotherapy;
- The psychopedagog – psycho-pedagogical assessment, intervention planning, conducting targeted therapies, monitoring, counseling;
- The teacher (special education teacher, primary and secondary teacher) - teaching;
- The itinerant teacher - intervention planning, conducting targeted therapies, monitoring, counseling(children, parents, teachers, integrated case management for children;

- The support teacher – conducting educational activities, adapting teaching strategies in order to integrate SEN students;
- The medic - clinical diagnosis, drug therapy, health monitoring;
- The social worker – maintains the relation with the public social service, families and professionals in order to achieve social inclusion;
- The family – co-therapist

The multidisciplinary team develops the Individual Education Plan (IEP), a standardized document developed for a SEN student that describes individualized adaptation, modifications, goals and recommended therapies. The IEP development should be a collaborative effort between the multidisciplinary team specialists and should primary target the well being of the student.

The IEP planning includes the following continuous, flexible phases: identification, assessment, school placement, planning, implementation, monitoring and social integration.

There are three main models of case management and IEP planning: multidisciplinary, interdisciplinary and the transdisciplinary approach. Depending of the paradigm of which the special education specialists adhere there is a specificity in caring out the case management.

The most widespread model is the multidisciplinary one. In this model a group of specialists in different fields (the multidisciplinary team) work in parallel in order to accomplish common goals in educating the SEN students. The case management process is carried out habitually in specialized institution, with few interactions between specialists. Each person work individually and is responsible only for their part of the recuperatory effort, and their work is complementary to each other. The families receive information from every specialist, and sometimes have to compute by themselves the process as a whole. Trembley (2007) lists the following barriers which may occur in a multidisciplinary case management:

- In communication: each member uses a specialized vocabulary of his field; do to the confidentiality code sometimes they can communicate only partial information;
- In perceptions: of their roles, status, management arrangements or workload;
- In priorities: of recuperatory objectives, plans or aims.

The interdisciplinary model is characterized by the fact that the specialists work together and not in parallel in order to achieve common goals. The findings of the assessment, monitoring and reporting, also goals, intervention methods and curriculum accommodations are shared among them. One of them is designated as case manager, and works as a liaison and coordinator between specialists and family. In this model, every specialist contributes with his own expertise in all the areas: assessment, planning, intervention and monitoring. The results are communicated to all the factors involved, and the case manager coordinate the interdisciplinary team and prioritize goals, designate roles, and communicate the results to the family. In this model there is no transfer of skills from one member to another. Trembley (2007) lists the following limits which may occur in an interdisciplinary case management:

- Related to team interactions not everything can be decided as a team; possible conflicts of interests, professional vision or prejudice;
- Related to decision making process: there can be conflicts in goal prioritizing, the perceived importance of different intervention can be different among members; everyone must decide on their own, which must correlate with team decisions.
- Related to intervention: the division of labor may cause conflicts

The multidisciplinary and the interdisciplinary models are student-centered, focusing mainly on the needs, interests, preferences and choices of the child in planning and implementing the intervention. The basis of the recuperatory process are the child's developmental levels, child's strengths and the better developed abilities. In this type of intervention the special education specialists are those who control the whole process and make decisions based on the interests of the child.

The transdisciplinary model is based on the concept of transfer of powers between team members. All the roles and recuperatory phases are a common effort, the members participate in every aspect, sharing knowledge, methods, findings and experiences. Everyone participate in the decision-making process, the boundaries between disciplines are erased.

York et al. (1990, p.73) lists two specific features of transdisciplinary teams;

- *"A high degree of collaboration and joint decision-making among team members (including parents) in conducting assessments, establishing program priorities and designing and implementing individualized educational programs;*
- *Teaching the skills traditionally associated to one discipline to other team members who function in direct service capacities and work directly with learners throughout each day across a variety of environments and activities (role release)."*

The transdisciplinary model aims to provide coordinated, integrated, family-centered services in order to meet the complex needs of children with SEN. Transdisciplinary team is characterized by involving all members to learn, teach and work together to implement coordinated services. (King et al 2009, apud Fewell, 1983).

The transdisciplinary model was firstly developed in the early 1960 for infants, children and adults with developmental disabilities. " Initially developed to aid in the coordination of therapeutic and medical services for infants (Campbell, 1987), it was further refined by the United Cerebral Palsy National Collaborative Infant Project of 1976 (Stepans, Thompson, & Buchanan, 2002) in order to provide a "comprehensive and coordinated assessment system" (Stepans et al., 2002, p. 239) for young children with severe and multiple disabilities. The goal was the establishment of a more relevant and appropriate Individualized Education Program for each student." (Hernandez, S.J. (2013), p.495).

King (2009) identifies three main operational features of the transdisciplinary approach:

- The arena assessment: Each child is assessed simultaneously by specialists, using both standardized and informal methods. A person assumes the role of the facilitator while 1-2 other professionals interact with the child and other specialists observe and take notes. Each member has a role, including the parent who provides information about the child. After assessment a short meeting is performed in order to change impressions and interpretations.
- Intensive interaction between the transdisciplinary team members throughout the intervention, in order to exchange information, make decisions together, work collaboratively for the best interest of the child.
- Role release: *"The team becomes truly transdisciplinary in practice when members give up or "release" intervention strategies from their disciplines, under the supervision and support of team members whose disciplines are accountable for those practices. The role release process therefore involves sharing of expertise; valuing the perspectives, knowledge, and skills of those from other disciplines; and trust—being able to "let go" of one's specific role when appropriate."* (King et al, 2009, p. 213).

*"The presumed benefits of TA include (a) service efficiency, (b) cost-effectiveness of services, (c) less intrusion on the family, (d) less confusion to parents, (e) more coherent intervention plans and holistic service delivery, and (f) the facilitation of professional development that enhances therapists' knowledge and skills."* (King et al, 2009, p. 213)

The transdisciplinary model is a family-centered one. This means that all decisions, goal setting, implementation and recommendations are based on the family need's, perceptions, opinions of the child well-being. The start-up presumption is that the family is the most focused and motivated developmental and educational factor in the child's life, and knows best the characteristics and needs of the child, and always aim the best interest of the child. Also, taking family needs into the center of the process manages to engage the family effectively in the recuperative process, as co-therapist.

#### **4. The benefits of applying the transdisciplinary model**

The transdisciplinary model was initially applied in early intervention and in cases of severe and profound disabilities. In the context of bettering the educational integration of SEN students and moving toward inclusion, a solution for the current problems must be proposed. We consider that the transdisciplinary model addresses many of the current problems of school integration:

1. The majority of teachers who educate the SEN students are not trained or competent in the special education field. Also, a lot of special education specialists are not trained in education for primary or secondary school. The transdisciplinary model offers to both categories the opportunity to share knowledge and to learn from each other in the best interest of the child. The role release element from the transdisciplinary model empowers them to work efficient and competent with the student, and record a significant progress.

2. The majority of teachers who educate the SEN students have negative and discriminatory attitudes towards them. Working together with SE specialists, seeing the process in making, contributing to the evident progress of the student, seeing the pleased families may change their attitudes.
3. In Romanian case management family is rarely fully involved in the recuperatory process. The role of the parents is essential, in contributing in the knowledge consolidation and application in every day life. By focusing on the family, this obstacle can be overcome. In the transdisciplinary model the parents are asked about their needs, and so involved in the decision making process. Their needs are considered a priority in intervention planning, and firstly addressed. Thereby they observe positive effects on family life and their quality of life in the early stages of intervention, and tend to be more trustful and involved in the process. In time, they perceived correctly their role as co-therapists and fully involved in their child education.
4. The parents of the regular students in the class have discriminatory attitudes toward the SEN students. They consider that SEN children can be dangerous or bad models for their children and reject the idea of school integration. By involving the family in the educational process they can act as liaisons with the other parents, by sharing their experience, struggles and success.
5. Obviously the students benefit the most from this approach: all the specialists are very involved in their progress, also the family and the process is in a continuous development, because everyone learn from everyone.

## **5. Conclusions**

Current trends In Romanian Special Education legislation, theory and practice are for the shift of emphasis towards inclusion, which is a goal, unfortunately quite difficult to achieve at present. Such a difficult change of perspective is a lengthy process that includes the involvement of many factors: social, community, scientific authority and practitioners. An inclusive school is one prepared (both in terms of financial resources as well as human resources) to receive any category of students, both regular and with SEN. In this context, an inclusive school should provide its students all necessary accommodations needed. In our educational system the barriers in an effective inclusion occur in: the regular teachers' low expertise in the special education field, their attitudes, lack of appropriate financing, lack of necessary accommodations, an insufficient number of special education specialists, and poor parent involvement. The multidisciplinary model presently applied in Romanian schools proves to be ineffective, the success is an exception not a rule, and it depend on contextual factors.

The transdisciplinary model can be the right alternative, all factors involved have to benefit. The specialists share knowledge and learn from each other in the best interest of the child, the role release element from the transdisciplinary model empowers them to work efficient and competent with the student, and record a significant progress. In the transdisciplinary model the parents are asked about their needs, and so involved in the decision making process. Their needs are considered a priority in intervention planning, and firstly addressed so in time they become co-therapists and fully involved in their child education. The family can act as liaisons with the other parents,



by sharing their experience, struggles and success. The students benefit the most from this approach: all the specialists are very involved in their progress, also the family and the process is in a continuous development, because everyone learns from everyone.

Unfortunately the transdisciplinary model is not known and applied in the Romanian educational system. The first step we propose toward its implementation is to popularize it.

Here are some suggestions for implementing the transdisciplinary model in Romanian special education:

- Organizing training courses for teachers in transdisciplinary case management
- Conducting roundtables and panel discussions with professionals in the field
- Providing counseling for teachers in implementing this model by university specialists
- Presentation of good practices in implementing the transdisciplinary model.

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## ***Innovative Learning Environments - a new perspective of innovation in education***

Claudia Borca<sup>61</sup>

**Abstract.** This article brings into question the current concerns internationally in the area of learning theories and practices. Based on new trends expressed through the policies and projects of The Organisation for Economic Co-operation and Development (OECD), we intend to approach the theoretical foundations of the concept of Innovative Learning Environments (ILE), and this concept applied into practice - the “7 plus 3” framework – that is based on learning research and the analysis of the innovative cases submitted through the OECD / ILE project. In this framework we presented the OECD Innovation Strategy and particularities of innovation in education and brought arguments to support this idea.

**Keywords:** innovation, learning, Innovative Learning Environments, education, school

### **1. Innovation in education**

Innovation in education is a permanent topic, continuously, but in equal measure is actual, contemporary and modern in perspective of the new challenges existing in society today.

In this paper, we propose to answer the question *What are the changes that it brings Innovative Learning Environments (ILE), as the newest form of innovation in education, at the macro, meso and micro - level.* To provide a more exhaustive response, we will proceed to clarify the assertion of innovation in education, something that will lead to an accurate understanding, general and particular, of the concept of innovation.

The concept of *innovation in education* integrates a complex and holistic approach; oriented to solutions to remedy certain specific aspects of educational reality, but also to: new, progress, evolution. In this context, we can talk about two facets of innovation in education: remedial innovation and emerging innovation. Remedial innovation focuses on solving specific problems of the educational system and the educational system with aim of improving specific aspects of educational, social and economic reality. The concerns specific for this remedial approach of innovation can be materialized in reducing targets school failure, increasing the motivation of students, inequality of opportunity in education, increase access to education of disadvantaged groups, improving school results etc. Emerging innovation focuses on a proactive approach at the macro level, based on growth, development, progress. The change involves a new vision on the educational system, in relation to growth and economic and social development, changes of educational culture, practices and process.

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To surprise the significance of this concept for more accurate approach to the issue, it is necessary to refer to the current terminology, agreed in scientific environment and in the vision of practitioners, teachers and experts. If in areas such as science and technology, innovation is created in environments different from those to be applied and applies precise procedures for transposition into practice through technical textbooks and manuals; in education is totally different approach.

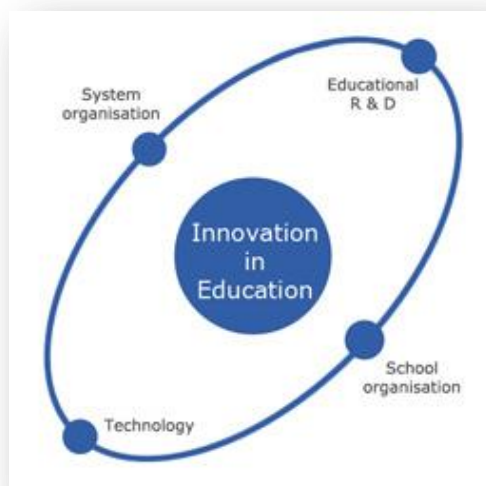
"In schools, innovation occurs in the same environment that has to simultaneously provide services and maintain the smooth running of everyday practices" (Blackmore, J., 2012, p.10).

The Oslo Manual defines innovation as *"the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations."* (OECD, 2005, p. 46).

Teachers, designers, administrators & students share their definitions and favourite examples of innovation: *"Innovation is about reframing challenges as opportunities"* (Charles Shryock IV, 2015); *"is connecting broadly while rethinking creatively to live anew"* (Dominic Randolph, 2015); *"Innovation isn't just change, it's change in a positive direction"* (Tom Sayer, 2015); *"is building a totally new solution to a problem"* (Gavin Cosgrave, 2015); *"Innovation is when a change or update is made to something that already exists but it dramatically improves its efficiency, productivity, or outcome... it's an improvement to a system, product, service, curriculum, etc., an innovation, is not just a change but a "game changer". I often link invention and innovation closely, in that an invention is a new creation of something whereas an innovation is an inventive improvement of something"* (Brett Brownell, 2015); *"innovation occurs when you solve a problem in a new way, but impactful innovation occurs when you solve the problem in the right way"* (Elysa Fenenbock, 2015); *"It's recognizing a need and creating a solution for it. Addresses needs that are entrenched and multi-faceted, and require an iterative approach to the development of solutions. [It's] not just about being NEW and DIFFERENT—it's about tackling issues that are complex and not so well understood."* (Emma Scripps, 2015) (*The Teachers Guild*)

To respond to the challenges and provide answers to reflections on the type of education they advertise innovative companies, such innovation can be stimulated and measured in Education, OECD released in 2010 the *Innovation Strategy*. According with it, the essence of innovation is human capital. The completion of formal education by developing competent people enabling them to innovate is absolutely necessary. "Curricula and pedagogies need to be adapted to equip students with the capacity to learn and apply new skills throughout their lives" (OECD, 2010)

Innovation in education is influenced by the role of technology, networking, educational research and development (R & D) and organisational culture (Figure 1) and requires research and development of new products, processes and methods.



Source: [www.oecd.org/edu/ceri](http://www.oecd.org/edu/ceri)

Figure 1: Innovation in

Education

In this perspective, OECD Innovation Strategy 2015 focuses on strengthening innovation performance in a more action – oriented, inclusive, personalised environment and comprehensive approach. The 2015 Strategy “sets out 5 priorities for policy makers: strengthen investment in innovation and foster business dynamism; invest in and shape an efficient system of knowledge creation and diffusion; seize the benefits of the digital economy; foster talent and skills and optimize their use; improve the governance and implementation of policies for innovation.” (OECD, 2015).

## 2. Innovative Learning Environments

In the current context, in which the trend of the 21<sup>st</sup> century is that countries to become transformed from industrial, knowledge-based enterprises, to knowledge economies, considering that are still schools that prepare students for an industrial economy, and this approach is outdated. The implicit “*mind-as-container*” metaphor does not reflect the productive, creative side of working with knowledge that underlie innovative activity. (Dumont, Istance, 2010)

Therefore, new educational realities require creation of new models of teaching - learning – evaluation to meet the requirements of contemporary global development. In this context, the emphasis is on creating innovative learning environments which to exceed the old approaches.

For a better exposure of this reality we realized the two figures used below which shows the comparative analysis of those two approaches in learning: classical (Fig. 2) and new (Fig. 3).

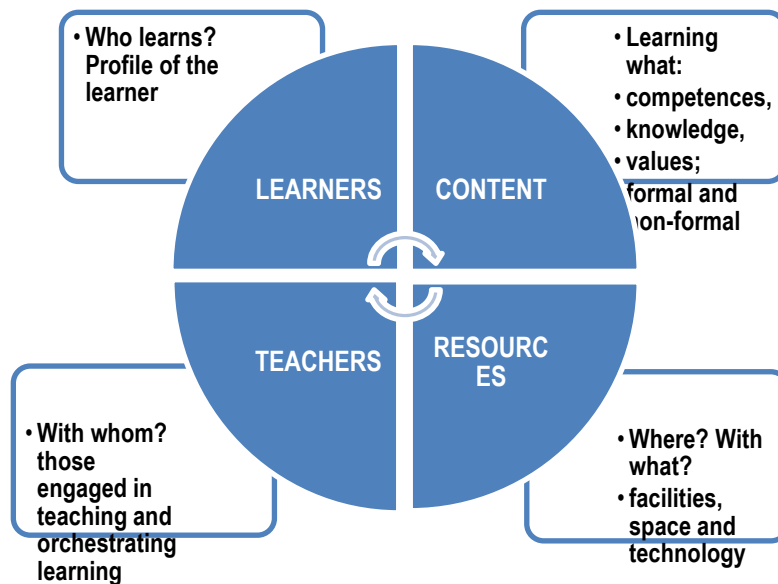


Figure 2: 'Micro' environment level (adapted after Istance, 2012)

According with D. Istance (2011, p. 7, 8) "learning environments should be: **learner-centred**: highly focused on learning but not as an alternative to the key role for teachers; **structured and well-designed**: needs careful design and high professionalism alongside inquiry & autonomous learning; **profoundly personalised**: acutely sensitive to individual and group differences and offering tailored feedback; **inclusive**: such sensitivity to individual and group differences means they are fundamentally inclusive; **social**: learning is effective in group settings, when learners collaborate, and when there is a connection to community".

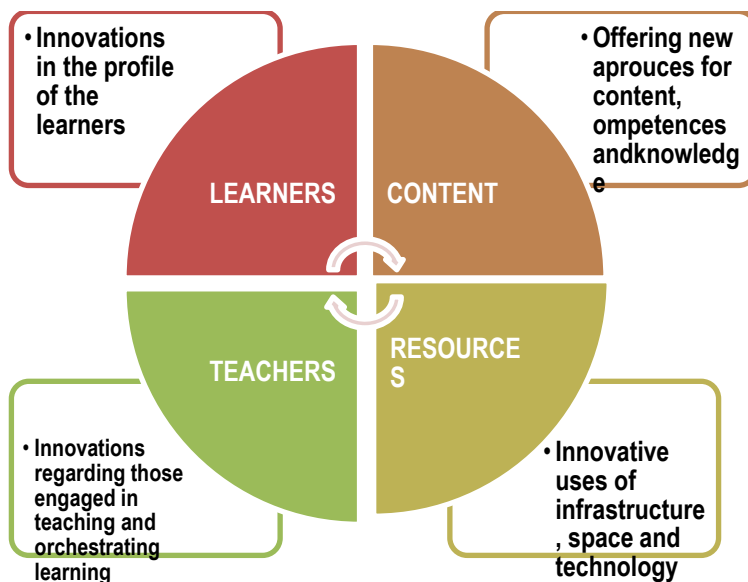


Figure 3: Innovative 'micro' environment level (adapted after Istance, 2012)

The new approach in learning (Fig. no. 3) describes the way is realised rethinking the innovation of four elements of "pedagogical core": learners, teachers, content and resources. Through using the Internet in virtual class or parents become learners; **teachers** and different expert, adults or peers, teach alongside with **learners**. Approaches to innovating **content** include the new social learning competences, application of the interdisciplinary approaches and sustainable development education. Resources refers to use of new learning spaces, such as digital resources.

Innovative Learning Environments require a contemporary learning environment in which the emphasis is on innovation education system through innovation elements and their dynamics. School organization is required to become a formative organization based on leadership strategies of teaching, learning and assessment. Partnerships are very important for increasing the share capital for growth and professional dynamics and replacing old with new approaches. ILE involves changes at the macro, meso and micro, including new approaches of pedagogical (curriculum and educational outcomes), physical spaces and social reality

We brought up, in a previous section, about 5 priorities of Strategy 2015 and mention the important contribution that it has encouraging talent and skills and optimize its use. Support of skills for innovation can be achieved through following dimensions: lifelong learning policy, developing innovation-friendly organisations, increase of people mobility, international mobility, as a way of innovation in education.

The declared mission of Innovative Learning Environments is to identify the most appropriate ways to transform the school to become an enabling environment for teaching and learning, and foster lifelong learning. The goals of ILE is to analysing and synthesizing international research findings on learning; to identifying and analysing examples of innovative learning environments from all over the world; to engage with many systems and stakeholders and to identify ways ahead to implement change (Dumont, H., 2015).

For a better understanding of the fundamentals that underlie learning in new innovative approach, we expose the **learning principles in ILE**, as they were presented in *The nature of learning – using research to inspire practice* report. identified to optimise learning but they equally serve as principles to guide wider strategies, reforms and system change.

**The "7 plus 3" framework** is based on learning research and the analysis of the innovative cases submitted through the OECD / ILE project (OECD, 2015):

1. "*Learners have to be at the centre of what happens in the classroom* with activities focused on their cognition and growth. They have to actively engage in learning in order to become self-regulated learners who are able to control their emotions and motivations during the study process, set goals, and monitor their own learning process." (Schwartz, K, 2013) Learning is a central process, that encourage engagement, and be where learners come to understand themselves as learners ('self-regulation') (Kools, M., 2014, p.7)
2. "*Learning environments* is a social practice (Schwartz, K, 2013), learning is social and often collaborative (Kools, M., 2014), they are a big part of student's daily life and, also, social skills are integrated in the assessment strategies (Dumont, 2015)

3. *"Motivations and emotions are an integral part of learning.* Students are encouraged to reflect on their own emotions and motivations. (Dumont, 2015).
4. *"Learners are different* and innovative learning environments reflect the various experiences and prior knowledge that each student brings to class." (Schwartz, K, 2013). Individual differences between students are not seen as a problem, but as enrichment, therefore heterogeneous learning groups are deliberately created inclusive through integrated of students with disabilities, special needs or behavioural problems. Individualized learning tasks and assignments are developed by teachers and students. "Open learning periods" are an important part of the school day, in which each student works on something different (Dumont, 2015).
5. *Students need to be stretched, but not too much.* "Students need to experience both academic success and the challenge of discovery. In a diverse classroom group work can help achieve this as students at different levels and help one another." (Schwartz, K, 2013).
6. Assessments should focus on the learning process, not only on the product of learning. (Dumont, 2015), assessments are important to support learning. In ILE "self-assessments and peer-assessments" are very common and students are assessed on a wide range of outcomes: academic achievement, social skills, meta-cognitive skills, and self-regulation skills. (Dumont, 2015).
7. *Horizontal connectedness* make the learning environment strongly promotes horizontal connectedness across activities and subjects, in-and out-of-school, to the community and the wider world" (Kools, M., 2014, p.7, Dumont, 2015).

The follow-up ILE report *"Innovative Learning Environments"* (2013) put the learning principles at the middle but then added three more dimensions that are about defining and organizing learning environments so that they become powerful and innovative and put the principles into practice. Such powerful learning environment is (Istance, 2015, p. 10):

8. *"Innovate their <pedagogical cores>* – both the core elements (learners, educators, content and learning resources) and the dynamics that connect those elements (pedagogy and formative evaluation, use of time, and the organisation of educators and learners)."
9. *"Become <formative organisations> with strong learning leadership* – with vision, strategies and design, all closely informed by evidence on learning and self-review."
10. *"Open up to partnerships, to create synergies and enhance professional, social and cultural capital* - with families and communities, higher education, cultural institutions, businesses, and especially other schools and learning environments."

Considering the conceptual and informational exposed, we can conclude by summarizing directions which ILE make consistent adjustments in the three levels of analysis proposed in the beginning of the article: macro, meso and micro level. These can be considered **strengths** of ILE. in this perspective, Innovative Learning Environments change framework in the next four-way: "(1) Designing, sustaining and building capacity in individual learning environments (*micro learning*); (2) Aligning learning environments with educational organisations and their



institutional structures (*micro organisations*); (3) Environments connected to others in diverse networks and professional communities focused on learning - critical for sustainability and for “going to scale” (*meso level*); (4) Policy as building capacity and creating conducive climates or incentives for micro and meso change (*macro level*)” (Istance , 2011).

### 3. Closing remark - the critics, advantages and the new directions of ILE

The heterogeneity of the system 25 educational systems where ILE was implemented has resulted in some **shortcomings or weaknesses** of ILE. In New Zealand, some experts, such as Blackmore, J. (2012) appreciated that “the ILE approach to learning is highly individualized and more oriented towards social efficiency than by a robust curriculum approach.” Blackmore, J. (2012) appreciated that another weakness would be to push “the students to digital providers, that could signal a de-skilling of teachers and (along with open plan class rooms) an emphasis on cost-efficiencies over quality and effectiveness”.

Although these criticisms have been made, the case studies in ILE outlined the **main advantages of innovative learning environments** bring through indicators of positive impact: decrease in school dropout rate and absenteeism, a “value-added” on system achievement assessments, the conventional examination results, learners perceive the school in a highly positive light, they report it is fun to learn there, that the teaching methods are different and unique, the contents are interesting and there are good relations between teachers and learners; increased high school completion rates, increased provincial standardized test scores, school satisfaction surveys and strong community support. (OECD, 2013)

Contemporary learning environments need to be connected to diverse networks and professional communities, learning from others and developing “learning systems”.

“In complex eco-systems of learning, there will be a wide range of approaches. Some will be operating within the <pedagogical core> of learning environments, changing learning cultures and capacities, while others will be less direct and more systemic. In contemporary learning systems, <systemic> includes but extends well beyond the institutional school system as it is delineated through formal governance.” (OECD, 2013)

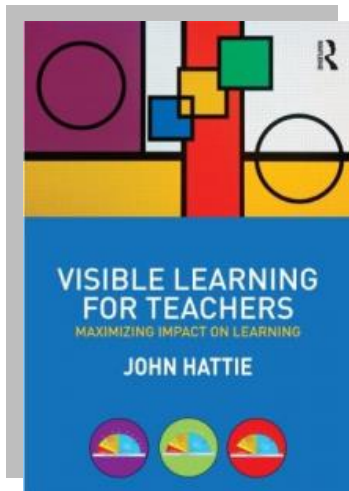
In conclusion, we can say with conviction that innovation in education is an challenging area, regardless of the innovation we are talking about, whether it's about innovation in structure and organization of education, whether we relate to innovation level education content.

In the end, we would bring into question the important role that universities play in promoting innovation in education through a greater focus on education policies, university autonomy by adopting a vision and a philosophy us that the entrepreneurial university focusing on innovation and development. This may be the focus of future publications.

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## Visible learning for teachers. Book review



Ana Simona Negomireanu\*

John Hattie was born in Timaru, New Zealand and was a professor and director at the Institute for Research in Education at the University of Melbourne, Australia.

John Hattie, professor and researcher, trainer of over 3,000 teachers from over 1,000 schools, mostly from New Zealand and Australia, has performed over 800 meta-analyses that were the basis for editing work Visible Learning in 2009.

Visible-learning for teachers is a continuation of Visible Learning, published in 2009 and focuses on schooling characteristics that have the greatest impact in the learning process, ie the features that make learning visible.

The volume focuses on stimulating teaching objectives, the importance of clarifying the criteria for success in the classroom and individual student progress and on how continuous assessment can motivate both teacher and students.

The book explains many of the most powerful influences on student learning and provide questionnaires, checklists and examples to introduce these visible aspects of learning in the classroom. So this guide for teachers aims to help them "make learning visible" by rethinking their approaches educational manner in which they can see learning through the eyes of their students and also helps to know how to seek and provide appropriate feedback to help students in getting a significant boost in learning.

To be more convincing in this respect Hattie brings forward evidence to show that learning becomes visible when teachers learn to adjust permanently their activity so as to help students become in turn own teachers (through metacognitive strategies, feedback or reciprocal teaching strategy). To facilitate this enhanced role of teachers book consider the perspective of both the teachers and the students.

Learning visible after Hattie "refers to making visible student learning for teachers" but also to "make visible teaching students so that they become their own teachers."

John Hattie found that the effect 10 influences related to a student's achievements are: self-evaluation; formative assessment, teachers explained clarity (consistency); mutual learning; feedback; student-teacher relationship; meta-cognitive strategies; self-verbalization / ask and to ask questions; continuing professional development; problem-based learning (learning by solving problems).

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Visible Learning for Teachers provide detailed explanations to prepare and analyze the act of teaching the lesson according to what works best. Providing adequate feedback is important.

Studies show that the best learning effects occur not only when students become their own teachers (through self-monitoring and self-evaluation), and when the teacher learns from his own teaching.

Checklists and examples presented here help teachers to try learning visible in their own class but undeniably the area of interest can be extended to heads of schools who will find useful ideas based learning visible to help spur development school.

It also presents the contexts of theoretical and practical consequences of the result of its analysis, distilling 138 learning success factors and shows the extent of their effects. These factors are arranged in six thematic groups:

- contribution to student learning school
- family
- school environment itself
- the teacher
- curricula
- teaching approaches

To satisfy the curiosity of the reader of these groups of factors mentioned, John Hattie makes the claim that teachers are the decisive factors of the educational process, justifying the disregard that teachers whose index of impact on teaching under the average of the index used by the author are the same many as those whose index is above average.

John Hattie confesses that through the work of its staff, the message of his book earlier Visible Learning a book more technical and went to the achievement of this book as a guide for teachers, the question frequently encountered "where to start?" coming to meet beneficiaries to think through the role of teacher on the basis of a SWOT analysis that can quantify the effects of his. Basically starting from one of the topics of "learning visible from inside" which implies the absence of a program or script, known as curriculum, has made implementation guide "learning visible". Here the author provides work situations that the criteria and frameworks for projects of lessons, they permit the actual state to facilitate the establishment of benchmarks in order to create debate, giving teachers the opportunity introspection.

Hattie framed its analysis and empirical data in theoretical anchored in the context of a theory of teaching, learning theory students and teachers work in the classroom. This combination of grounding empirical amazingly wide and contextualization theoretical inspired make his work Hattie special interest to discuss the relationship between empirical research in the field of teaching and education on the one hand and theoretical debates that aim and qualities of process -of teaching and learning in schools, on the other hand.

So this work summarizes the results of research studies in a "literary", but refers to the meta-analysis published and develop statistical effect size index. This parameter gives extra value to statistical information regarding statistical significance on some level.

The words of Hattie: "What is most important is that teaching must be visible to the learner and learning must be visible to the teacher." Strengthens the central idea of the work that teaching and learning visible occurs when teachers can see learning through the eyes of students and help them to become their own teachers. These sentences contain Hattie's theory of teaching, students learning theory and a theory of behavior of teachers in the classroom.

Emphasizing these types of "seeing" specific, we can explain the book's title: learning visible.

In the chapter on "curriculum" can we be expected to find more information about the substance and content of school learning. However, again, none of this can be found there. The chapter is divided into specialized areas: reading, mathematics, and other curricular elements. In these categories the reader is presented with reports on certain specialized teaching methods and their effect sizes, content issues, topics pedagogical significance of the problem, reflections on the problems and possibilities of legitimizing curricular decisions. Based on the studies analyzed in accordance with his theory of learning and teaching, Hattie draws a picture active, responsible, and in some instances directive, reserved, cautious

Professor Hattie's ideal position can put his students, to their learning tasks and their learning difficulties, but he can see through the eyes of his students. This teacher is interested in obtaining information about student learning and getting his feedback on the results of its educational activities.

Continuous monitoring of the effects of their actions the teacher is the key condition for the success of the teaching work. However, not only the feedback from students to teachers is important, but also that a teacher gives feedback to his students and supports their learning, including how to do this.

This view of the teacher meets model dedicated students who are able to monitor their own learning. This meta-cognitive perspective includes the prospect of learning on their own, their own progress learning their own learning difficulties and shortages. Both teachers and students need to see learning; it must be visible in both. Learning in this context means not only student learning, teacher and learning about the effects of his own actions. Hattie returns explicitly against deliveries constructivism: constructivism too often seen in terms of student centered learning, inquiry, problem-based learning, and learning based on tasks and and common words have become jargon "authentic" "revelation" and "intrinsically motivated learning."

Constructivist teacher's role is claimed to be more to facilitate individual to provide opportunities for students to acquire knowledge and to build their own activities through discussion, reflection and exchange of ideas with other students with minimal corrective action.

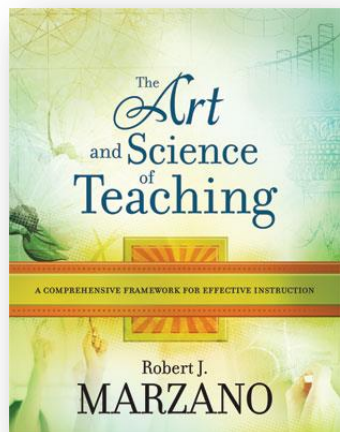
For Hattie, "constructivism is a form of knowledge, but not in education, and building knowledge conceptual should not be confused with the whim of constructivism" It fits with Professor constructivist only issues aimed respect: he must to build its own model of teaching and learning model pupil. From constructivism that a teacher can not withdraw from his role opposite ie student as Hattie's case.

Hattie book is based on an assessment monumental two decades of empirical research on the conditions for successful school learning. Such a broad and comprehensive view of synthesizers empirical research on schools, teachers and of teaching is unique so far in this very broad perspective.

In this power synthesizers book is also its relevance for all the actors scene educational because the emphasis on these elements of research quantitative empirical prove to be effective for increasing measurable achievement of student learning combined with the exclusion of those factors wider lead to other effects, and also important for schools and teaching activities.

I believe that this book deals with academic issues very clearly today. Hattie visible learning is defined as a "transparent process to everyone involved-teachers-students-school to ensure the best possible teaching practice throughout this process." Here are tips for best practices to make clarifications on how the evaluation of teaching and learning, but also about the importance of feed-back and communication between educator and educated.

## The art and science of teaching. A comprehensive framework for an efficient training. Book review



Ana Simona Negomireanu \*

**Robert J. Marzano** is a speaker, trainer, a well-known researcher in the United States. He did many educational research and theory on the topics of standards-based assessment, cognition, high-yield teaching strategies, and driving schools, including developing programs and practical tools for teachers and schools administrators.

Marzano created Regional Laboratory of Education and Research, one of ten similar laboratories in the United States. He is also executive director of „Learning Sciences Marzano Center”, in recognition of valuable contributions and expertise we bring to the educational plan is a leabyder in research on evidence-based education.

Robert J. Marzano's book, 'Art and science teaching ' - a comprehensive framework for effective instruction by reading it becomes a very useful scientific base, including practical suggestions, which can benefit both younger teachers and the most experienced, managed to provide the necessary tools to make teaching a true art and true science, so the scientific part of an educational approach to blend with the teaching related to art and craft educational yielding a whole that lead to effective teaching.

The problem of creativity education arises for the purposes of educating creativity to the potential of existing drive interest, curiosity, motivation support, release of inhibitions, phobias, increase immunity to the phrenic factors. The main methods and tehniques of practice and creativity can be used by parents, teachers, managers of institutions and enterprises. Analog methods are based on the type of analogical reasoning, the derivation of a proposition from another and interference is from the partial similarities between two or more phenomena. So, disregarding the differences, searching for analogies, highlighting those transferable traits that can lead to innovations or inventions.

Author Robert Marzano in carrying the book, divided into ten chapters make an authentic journey of the direct interventions of those who educates, offers us practically a walk in ten areas of great interest in the field of education to guide teachers to organize and streamline work in a constant spiral of reflection.

It goes from,, Introduction - A question and answer, and concludes with daily questions that should be made by them based on three crucial points:

- Lesson sequences focused on routine activities and behaviors, where to follow rules, procedures, presentation of objectives including their monitoring.

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- lesson sequences based on content, where we aim inputs, are exercises and deepens your knowledge and runs hypothesis testing.
- Lesson sequences focused on immediate activities involving students, measures taken for non-compliance and procedures, teacher-student relationship.

This theoretical framework Marzano says any actor can serve as a model of educational field. The author recommends teachers to take as a framework for reflection when you want to produce "change" their models, ie based on professional judgment, expertise of staff to take responsibility, advocating for the idea that teacher job builds strength much passion and faith of a divine thing.

The author warns us in an even vehemently that:, I doubt that two decades of research ... will help us to draw a model (education) that apply to all schools in all communities in all conditions.

He articulates his framework in the form of 10 questions that represent a logical planning sequence for successful instructional design:

- What will I do to establish and communicate learning goals, track student progress, and celebrate success?
- What will I do to help students effectively interact with new knowledge?
- What will I do to help students practice and deepen their understanding of new knowledge?
- What will I do to help students generate and test hypotheses about new knowledge?
- What will I do to engage students?
  - What will I do to establish or maintain classroom rules and procedures?
- What will I do to recognize and acknowledge adherence and lack of adherence to classroom rules and procedures?
- What will I do to establish and maintain effective relationships with students?
- What will I do to communicate high expectations for all students?
- What will I do to develop effective lessons organized into a cohesive unit?

The questions below are a logical succession planning for effective instructional design and are amply discussed in the ten chapters of the book.

The book has drawings, diagrams, tables, grids, and graphic organizers for being so easy to read, reflected on current research and thinking deeply about different aspects of teaching in the classroom, such as expectations of teachers design lesson, and reflection carried out after each act of teaching. It is not necessarily designed to inspire passion to teach but can be used as a checklist to evaluate teaching job.

Simple and applicable strategies for effective teaching are rooted in meta-analyzes that validate each strategy. The best way to measure the students' understanding of the lesson is over, not after. This work gives us a great way to perform a quick check for understanding what students have and how we can make them responsible for their own learning.



Modern teaching strategies involved here, built on scientific grounds but did not indicate the necessary staff to know when and to whom to apply, it is more of an art that inure following close examination of each component of the training process

Using a series of charts and diagrams to organize and turning to cutting-edge research, Marzano sets these 10 benchmarks of effective learning, based on educational goals and structuring knowledge and techniques ending with a good classroom management. Any teacher would certainly like an answer - or more - to the question: How to teach to generate learning?

R.J.Marzano removes the emphasis on modern teaching strategies that "prescribing how the student is contacted with new content, indicating the path to walk in order to customize, integrate it." Interactive methods are presented as modern ways of stimulating learning and personal development as a teaching tool that fosters interchange of ideas, experiences, knowledge. Interactivity is, learning through communication, collaboration, produce a confrontation of ideas, opinions and arguments, it creates situations centered learning readiness and willingness to cooperate children on their direct involvement and active on the mutual influence inside micro-groups and social interaction members of the group.

The implementation of these instruments modern teaching involves an accumulation of quality and availability of the teacher: receptivity to new, adapting style teaching, outreach, desire for self-improvement, reflective thinking and modern creativity, intelligence accept the new and great flexibility in views.

A modern education, well-designed allowing initiative, the spontaneity and creativity of children, and directing, guiding them, the teacher's role acquiring new meanings, beyond which was a traditional optical information provider.

Organize a child-centered education, the teacher becomes a co-participant together with student activities. He accompanies and child falls on the road to knowledge "offers solutions to structural and procedural, on the programming and combining different methods, procedures, means and forms of organization, but also on a whole set of programming operations învățare.În depending on the chosen strategy, the teacher identifies tasks that students will perform to reach desired purchases "

Use interactive teaching methods in teaching to improve the quality educational process, with a character and a real asset -participativ asset value -formativă the student's personality. Teachers often resort to explanations and demonstrations like "so we will proceed." For the moment the student understand, retain, but only ... for now. If students do not get the opportunity of discussion, investigation, action and possibly teaching, learning does not take place.

By going through this paper carefully Marzano's I found that it only focuses on factors related to the teacher and students. They rely only on certain subsets of experiments to Hattie using all available sizes effect.

Studies also use Marzano's research-based assessments specific to certain types of curriculum while those of Hattie is based on research using standardized assessments. For this reason readings of Hattie certain effect sizes may be smaller than those in studies of Marzano.

Beyond these differences in vision between the two I think it's important that we take in our work everything can streamline teaching approach, whether we consider the factor purely internal (teacher-student) or as broadening interest in the society live at school means more today or what information must also teach that those whom we care. Sometimes we consider education as an activity in which continuity is more important than the change is obvious that we live in an environment whose movement is not only fast but also unpredictable, even ambiguous. We do not know if what happens to us is "good" or "bad". The environment is more unstable and more complex, the more uncertainty. Technological progress and increased access to knowledge and resources we can propose and implement changes that, some time ago we could not even think. We must therefore change the way we think about the present and future of education we give to the next generation in view of these issues. We can not allow a school unit "museum", oriented towards the past, with its emphasis on knowledge, but we need a school that prepares them for future children, focusing on social and communication skills.

## Special events of 2015

In 2015 The Department of Educational Sciences of West University of Timisoara and The Romanian Institute for Adult Education (IREA) host two special events: The 4<sup>th</sup> National Conference on Adult Education and the anniversary of 15 years activity of IREA.

The 4<sup>th</sup> National Conference on Adult Education was organized in 21-22 of November 2015 by IREA, Educational Sciences Department of West University of Timisoara, National Institute of Educational Sciences, Timisoara Town Hall, National Agency for Community Programs in Education and Vocational Training and Culture House of Timisoara.

The conference was centered on analyzing the National Strategy on Lifelong Learning 2015 -2020, strategy that represents a landmark moment in the construction of the adult education system in Romania.

In the conference were discussed several perspectives on the implementation of the national strategy for lifelong learning, emphasizing in the possible barriers of its implementation and the concrete ways in which stakeholders can contribute to enhancing the participation of the adult population in education and creating a lifelong learning culture.

The event proposed by IREA has brought together representatives of all stakeholders (listed in the strategy as policy makers at the political level, the role of institutions implementing or monitoring) in implementing the strategy.

The topics of discussion and reflection were concentrated around the three strategic pillars and related measures described in the strategy document:

1. Access and incentives for participation
2. Quality and relevance
3. Partnerships for better information

At the same time, a happy coincidence makes the Romanian Institute for Adult Education have celebrated 15 years of activity on this occasion.

The Romanian Institute for Adult Education (IREA) is a research institute in adult education, established in March 2000 as a nonprofit organization, at the initiative of West University of Timisoara (WUT), the Romanian Social Institute Banat - Crisana (ISRBC) and the German Institute for Adult Education (DIE) as founding members.

Through its work IREA aims to conduct research and publications in the field of adult education, providing methodological support for activities in this field, making the link between theory and practice in adult education. By editing scientific publications and organizing adult education events the institute tries to spread nationwide research results. IREA also carries a rich international activity aimed at promoting global adult education in Romania.

## Recommendations for authors

The recommendations below are meant to clarify the expected quality of the journal and its articles.

The authors can send the electronic version of articles at: [resjournal@e-uvv.ro](mailto:resjournal@e-uvv.ro)

The sent papers shall be submitted under a peer-review from the members of our Editorial Board and beyond. The scientific criteria used by them are below.

### *Editing criteria:*

1. The accepted publishing languages is English
2. The words and quotes in foreign languages are written in Italics. The quotes in Romanian are written normally. Every quote shall have a foot note.
3. Citations should be indicated in parentheses the author, year of publication, page, can be easily identified with a complete reference to the citation from the end of the article. For example, if references to an author who had two publications in the same year, 2010, will be written including one bibliography 2010a works, to be easily identified. Footnotes should be used only in exceptional cases, if necessary annotations by the author.
4. Every author shall insert his name below the title of the paper, upper right on the paper, with a foot note that shall stipulate: academical title, institution, city, country, e-mail.
5. Every text shall be preceded by an abstract; every abstract should be up to followed by the key-words section up to 5 key-words. The abstract and the key-words section should be up to 800 characters; the abstract and key-words shall be written both in Romanian and English.
6. Each abbreviation shall be explained only at first use.
7. The bibliographical references must include at least one author listed by ISI or quoted in ISI articles.
8. At least 30% of the references must include papers published in the last five years.

### *Technical criteria:*

1. page - A4;
2. page setup: up – 2cm; down – 3 cm; left – 3 cm; right – 2 cm;
3. length of paper: 8-10 pages (max. 30 000 characters, including bibliography and abstract);
4. the abstract and key words shall be submitted in English (and Romanian, if possible);
5. page setup: justified, line spacing: 1,5;
6. title: bold, 14p;
7. text: Arial Narrow, 11;
8. first line indent: 1 cm;
9. bibliographical references, listed in alphabetical order, APA Style:
  - book: Name, S. (publication date). Title. city: publishing house.
  - article: Name, S. (publication date). Title. Name of Journal. page number.
  - online article: Name, S. (publication date). Title. Name of Journal.(is it is the case). Retrieved from (web site address).
  - Website: Name, S. (publication date).Title. name of the website. Retrieved from (web site address).

The references are not numbered

## Scientific evaluation criteria for the journal of educational sciences articles

CRITERIA	1	2	3	0
<b>A. Scientific merit of the paper</b>				
A.1. The importance and the actuality of the discussed topic, as well as the relevance of the discussed question				
A.2. The level of information (e.g. actuality and relevance of the publications from the bibliography) and the quality of the description of the current progress of knowledge in the				
A.3 The argument and basis of the discussed problem are well clarified and defined (e.g. conceptual clarifications, separating the aspects which shall not be discussed); the				
<b>B. Potential contributions to developing scientific</b>				
B.1 The research question is adequately answered, raising conclusions related to the theoretical basis presented in the article and the shared new ideas.				
B. 2 The type and the authenticity level is achieved by the				
B.3 The set of conclusions represents a synthesis built on a personal interpretation of the prior exposed results, with references to further developments on the discussed				
<b>C. Argumentative procedure</b>				
C.1. The research design is correct, the hypothesis are relevant, the methods and empirical investigation instruments are transparent and the interpretation of data is				
C.2 The affirmations are sustained by credible data from research or current theoretical elaborations.				
<b>D. Structure and presentation of the article</b>				
D.1. A logic sequence/connection (the ideas are logically linked together, the transit from an idea to the other is easy to follow, the order in which the parts of the paper are				
D.2 The used language is coherent, grammatically correct, meeting the scientific standards of expression				
D.3 The imposed structure of the paper is respected: abstract of approximately 800 characters, relevant				

### EVALUATOR'S CONCLUSIONS:

I recommend the publishing of the article

I recommend the publishing of the article after revise of the author

I do not recommend the publishing of the article

### Final comments:

Note: the evaluation scale of meeting the criteria presents itself as follows: 1 – done; 2 – partially done (requires further revise or annexation); 3- not done, does not fulfill the criterion; 0 – not the case, does not apply.

<sup>h</sup> Please provide explanations regarding the reasons for rejecting the article or list (on a separate sheet) with the concrete revision requirements