

CONSTRUCTIVISM FACING A CHALLENGE: CHILDREN WITH LEARNING DIFFICULTIES

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ABSTRACT. The problematic of learning difficulties is not new, but it is always discussed again in order to try to find new efficient ways for its diminution or elimination. The present study aims at establishing how efficient some ways of constructivist teaching are in diminishing the learning difficulties of pupils who do not have intellectual deficiencies. The findings of the research carried out on a group of 205 high school pupils have validated the efficiency of some of the suggested variables (i.e. learning models and methods based on cooperation and collaboration) and less of those regarding the ways of structuring and graphically organizing knowledge. We can conclude that through this category of children with learning difficulties not all models and instruments of work that are specific to the constructivist teaching are efficient and on the contrary, sometimes, behavioral practices turn out to have better results.

Keywords: *constructivism, behaviorism, learning difficulties, disabilities, learning handicap*

ZUSAMMENFASSUNG. Die Ausgabe von Lernschwierigkeiten ist nicht neu, aber es wird wieder wiederholt, in einem Versuch, um effiziente Wege zur Verringerung oder Beseitigung zu finden. Diese Studie zielt darauf ab, um die Maßnahmen von Effizienz der konstruktivistischen Unterrichtsmethoden zur Verringerung von Lernschwierigkeiten der Schüler festzusetzen, Schüler die keine geistiger Mangel haben. Die Forschungsergebnisse einer Stichprobe von 250 Lyzeumschüler validierten die Eifizienz einer von vorgeschlagenen Variablen (Modele, Unterrichtsmethoden aufgrund des Mitarbeit, Mitarbeit) und weniger die Effizienz von Variablen von Strukturierungsmodalitäten, graphische Organisation der Kenntnisse. Wir schließen daraus, dass alle Modelle und

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Arbeitswerkzeuge der konstruktivistischen Unterrichtsmethoden für diese Kinder mit Lernschwierigkeiten haben nicht eine Effizienz, manchmal haben die Behaviorismuspraktiken bessere Ergebnisse.

Schlüsselwörter: *Konstruktivismus, Behaviorismus, Lernschwierigkeiten, Behinderungen, Lernbehinderung.*

Introduction

Most of the time, learning difficulties are brought up for discussion with respect to the case of children with special educational needs, as they are associated with and considered a consequence of deficiency and disability. But they can also be an ordinary reality of both normal classes and children with no intellectual deficit (Winebrenner, 2006). We will focus on this category of children who are apparently “normal”, but who for various reasons cannot cope with the school demands and exigencies.

Learning difficulties can be classified depending on the etiology, their intensity or gravity, or their area of expansion. Sometimes, they are linked only with a certain field, certain subject (for instance: difficulties in assimilating oral or written language, in learning mathematics) (Jordan, Kaplan., Hanich, 2002; Westwood, 2003a, b; Westwood, 2004; Wang, Du, Liu, 2009; Delahaie, 2009; Çiltaş, Tatar, 2011; Mundia, 2012), affecting the process of acquiring certain skills and competences specific to the particular subject, other times they are generalized, the involved competences being transversal (difficulties in acquiring several habits, such as those of study, attention, memory, self-control, self-esteem) (Steel, 2005).

The semantic sphere of the concept of learning difficulties is quite large, consisting of quasi-synonymous syntagmas such as: *learning disabilities, learning disorders, school difficulties, learning difficulties, inabilities, school debility, school deficit, school maladjustment* (Mogonea, 2010a). The semantic proximity of these syntagmas doesn't cancel their specificity. The notional indeterminations are marked also in figure 1 (Ungureanu, 1998, apud Mogonea, 2010a, 58):

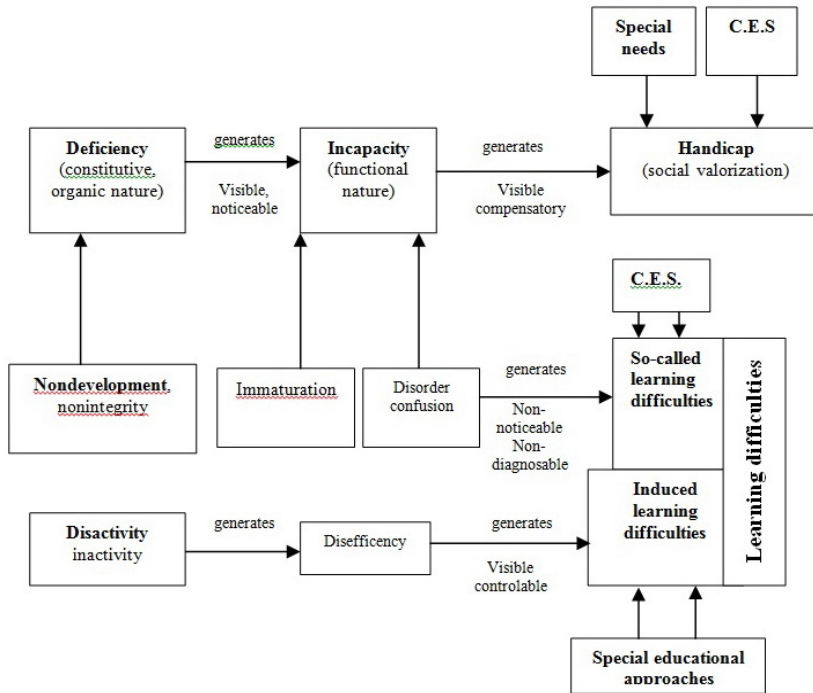


Figure 1. Logical hierarchical notional indetermination (Ungureanu, 1998, apud Mogonea, 2010a, 58)

Some authors distinguish between learning disorders and learning difficulties (see table 1) (Dubois, Roberge, 2010):

Table 1.

Comparative analysis between handicap and learning difficulty (Dubois, Roberge, 2010)

Learning disorders	Learning difficulties
<ul style="list-style-type: none"> - They are permanent - They have an early emergence in the learning process - They have a unique, neurological cause - In case of a dyslexia or dysorthography they engender: major integration difficulties of the basic processes to ensure understanding; incapacity to relate automatically letters to sounds or read, starting from the visual forms of the words, as well as recover the pronunciation associated to words; -they can be diagnosed by a speech therapist or by a neuropsychologist with the help of standardized tests that can assess the necessary time for reading a given text as well as the number and type of errors 	<ul style="list-style-type: none"> - They are temporary and in most of the cases they can be corrected - They may appear in different stages of the learning process - The causes are multiple and non-neurological: gaps in learning to read and write; allophone; sloppy working style; psycho-affective disorders, lack of motivation and interest; difficult socio-economic situation

Not always do pupils become aware or accept the idea of having learning difficulties. Most of the times, the helplessness of responding adequately to requirements, level of exigency or standards imposed, is ascribed to external causes, appealing to a “defensive attribution” (for instance: mathematics are boring, the materials presented are not sufficiently good, teachers don’t teach well, etc.) (Wang, Du, Liu, 2009).

Learning difficulties can be temporary, determined by a certain socio-educational. Some authors (Perraudau, 2005) state even that the difficulty is a normal stage within the act of learning (it’s about the cognitive conflict that appears as a result of the pupil’s confrontation with a new work task), considering that it must be made a distinction between this type of difficulties (called by them “ordinary”) and others in the sphere of disturbances, disorders. The etiology of difficulties is hence a multi-factorial and multi-determined one. We present a possible list of the causes that can determine learning difficulties (see figure 2):

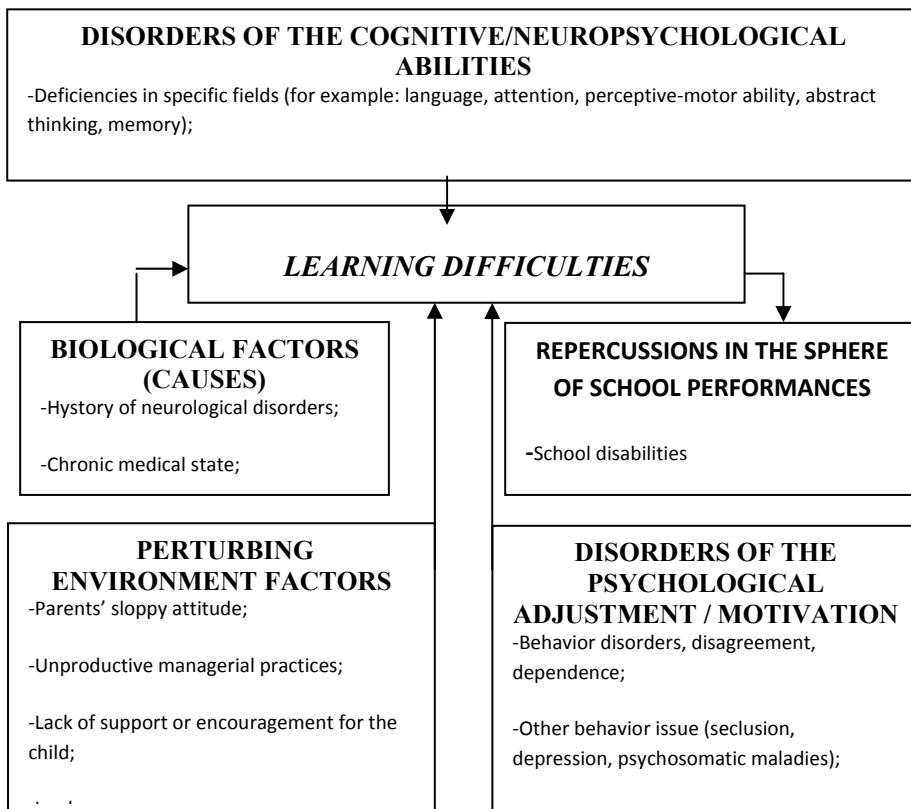


Figure 2. Learning difficulties etiology (from Mogonea, 2010a, 67)

Although most of the studies approach the problem of learning difficulties in correspondence with the school-age periods, there is also a great interest for the analysis of their specifics at the adult age, especially regarding the adjustment ways and why not, the social and professional achievements (Dee, Devecchi, Florian, Cochrane, 2006; Blow, 2008).

Knowing the etiology of learning difficulties, the way and the intensity of their manifestation, allows for action and intervention ways in order to diminish or even eliminate them.

In this context, numerous studies analyze the problem of the efficiency of some teaching models and paradigms used with children with learning difficulties. Thus, although lately the behaviorist approach has been criticized, it is considered to be efficient in the case of this category of children who need a more careful guidance and a clearer specification of certain instructions as they find it difficult to orient themselves in a complex task or when they deal with a more ample material (Lerner, 2003). On the other hand, the constructivist paradigm proposes a few teaching methods that can be efficient in the case of children with difficulties: placing pupils in real life, concrete situations; using the role play; using group projects (Steele, 2005). The mentioned author recommends also other practical ideas for teachers, of both constructivist and behaviorist nature:

- Specifically constructivist: the capitalization at the beginning of the lessons on examples that are familiar to pupils, starting from own experiences; focusing on a few key concepts in each lesson; projecting activities in which each pupil must be actively involved in the lesson; integrating the superior skills of thinking and last but not least, offering relevant explanations and guidelines to clarify problems;
- Specifically behaviorist: dividing the tasks into small segments; demonstrating and explaining each stage of a new task that pupils must solve as well as offering a model; including additional exercises as long as necessary to master an ability or habit; imposing a routine in lessons, a predictable approach; using monitoring and feedback throughout and not necessarily at the end.

In the educational practice, the two paradigms coexist (Weegar, 2012).

The principles and models proposed by constructivism are not new; they can be found at theoreticians like Dewey, Ausubel, Piaget, Vygotski Dewey, Ausubel, Piaget, Vygotski. They have been lately capitalized on so that the labels that apply to these paradigm with respect to teaching and learning are the following: “anchored teaching”, “situational learning”, “learning by discovering”, „task-based learning”, “the construction, scaffolding of learning” (Rowe, 2006; Cooperstein, Kocevar-Weidinger, 2004). More recently, the importance of problem-based learning has become more and more accentuated (Westwood, 2006). Phillips (1995, in Perkins, 1999) synthesizes the characteristics of the constructivist learning with regard to three aspects: active, social and creative learning.

The problem of learning is studied by some authors also from a neurological perspective. In this context, we recall the 12 principles of the brain that the process of learning is based on, and which are also the fundamentals on which the constructivist paradigm has built teaching and learning models, such as the experimental learning based on problems or based on cooperation (Caine Learning Institute, in Gülpinar, 2005, 303).

1. All learning engages the entire physiology (The learning process trains the entire body) 2. The brain/ mind is social. (Learning is socially determined) 3. The search for meaning is innate. (The epistemic curiosity is innate) 4. The search for meaning occurs through patterning (Knowledge involves training the cognitive patterns) 5. Emotions are critical to patterning (Emotions are involved in the knowledge process) 6. The brain/mind processes parts and wholes simultaneously. (The cognitive processes are carried out both sequentially and as a whole) 7. Learning involves both focused attention and peripheral perception. (Learning also implies other mental processes, like attention and perception) 8. Learning is both conscious and unconscious (Learning is accomplished consciously, planned and also unconsciously, spontaneously). 9. There are at least two approaches to memory (rote learning system, spatial/contextual/dynamic memory system) (Both types of memory are involved: rote and logical) 10. Learning is developmental. (There is a dependency relationship between learning and development). 11. Complex learning is enhanced by challenge and inhibited by threat associated with helplessness and fatigue (Learning efficiency is influenced by health or fatigue) 12. Each brain is uniquely organized (The uniqueness of human comes from the uniqueness of the human mind).

Also in support of the idea of diminishing learning difficulties, several acquisitions in the field of psychology are capitalized on, such as the theory of multiple intelligences – theorized by H. Gardner (Gardner, 1996; 2006; Armstrong, 2009; Mogonea, 2010a, b), the theory of emotional intelligence (Goleman) and in general, the role of the non-cognitive factors. Some researches (Doly, 2000; 2002; Mogonea, Mogonea, 2013) point out the role of metacognitive factors in obtaining school success, analyzing at the same time the specificity of metacognition for children with learning difficulties.

Also, recent studies (Fichten, Ferraro, Asuncion, Chwojka, Barile, Nguyen, Klomp & Wolforth, 2009) analyze the possibilities of diminishing learning difficulties via e-learning

Method

The investigative, experimental approach reverts to a series of our previous interests (Mogonea, 2010a; Mogonea, 2010b; Mogonea, 2013) regarding the study of the learning difficulties problematics, from different perspectives of approach, especially ameliorative and optimizing approaches. We approach now the problem concerning the diminution of these difficulties by promoting some methods of work specific to the constructivist paradigm in teaching, in the context of forming basic and at the same time transversal competences in assimilating language (competences in receiving and generating messages directly and perfectly adapted to the particular situation of communication).

Objective and hypotheses

The purpose of this research was to establish the efficiency of several methods of constructivist teaching to diminish pupils' difficulties in assimilating the language.

Our intention was to demonstrate that the promotion of a knowledge based on an individual activity of documentation, understanding, structuring, synthesizing and graphical representation of the materials made available, completed by a social activity in order to challenge the personal points of view regarding knowledge, can assure a better understanding of the problems as well as help correct mistakes and misunderstandings.

The basic hypothesis of the research was the following: Using some models, methods and instruments of constructivist teaching in the activities carried out with pupils regarding the assimilation of the language, will lead to the diminution of these difficulties.

To materialize the general hypothesis and at the same time, outline some research directions, we formulated two **particular hypotheses**:

1. Capitalizing frequently on the techniques and instruments of graphic organization of knowledge, within the activities carried out with children, will ease the process of understanding and improve their school results.
2. The activities based on cooperation in a small group and the interactive learning methods, allow the confrontation of one's own opinion and way of understanding to those of the group and ensure a better understanding of the knowledge and work techniques by the pupils.

Participants

The group of subjects was constituted of 205 pupils in the 10th grade, while the sampling technique used was that of the classroom group. The profile of the classes chosen was either philology or mathematics and sciences. The schools from which these classes were chosen are normal, not special ones. Being an

experimental research, our purpose was to establish the degree of equivalence of the two groups, the experimental group and the control group, the methods used being the initial test (pretest) and the method of the analysis of school documents (the school register, from which we took the averages of the students at the school subject *Romanian Language and Literature*, at the beginning and at the end of the research). The experimental group was constituted of 80 subjects, while the control one – of 125 (see table no. 2).

Table 2.

Structure of the group of subjects

Group of subjects	No. of subjects	Total
Experimental	80	205
Control	125	

Instruments used throughout the research were:

To identify pupils' learning difficulties we used numerous instruments: *a questionnaire to identify the level of reading, observation or assessment grids; assessment grid for the quality of the pupils' reading; assessment grids for a debate, the construction of a dialogue or an argumentation; assessment grids for the subject of the narration, for the interpretation of a dramatic text, summary or the activity of oral expression* (see the annex); *a symptomatological and etiological inventory regarding the learning difficulties for the 10th grade Romanian Language and Literature* (Mogonea, 2010a, 168-169) and last but not least, *the pedagogical test of knowledge*.

Within the experiment, we used models, methods and instruments of constructivist teaching, such as: the collaborative and cooperative learning models (by capitalizing on numerous collaborative learning methods: mutual teaching and learning, the mosaic method, "change pair"); the use of some methods and techniques of graphical organization of information (example: cognitive maps, "the tree of ideas", "the water lily flower", etc.). All these methods were used within the Romanian language activities with children, the purpose being to diminish their difficulties in assimilating the language.

The guidelines of the formative experiment that we conducted were based on the two particular hypotheses, trying to observe the confirmation or refutation of their validity and indirectly and implicitly, the confirmation of the validity of the general hypothesis. The two important directions consisted firstly, in using the graphic organizers in facilitating the understanding and thoroughness of knowledge as well as acquiring competences and secondly, using the cooperation and collaboration of the methods based on the interactive learning of the language.

Results and Discussion

The instruments used have allowed the identification of the types and frequency of learning difficulties in assimilating the language by the high school pupils. We present in table no. 3 these categories of difficulties identified through the applied symptomatological inventory (see table 3).

Table 3.

Symptomatological inventory of learning difficulties (Mogonea, 2010a, 168-169)

Field	Symptomatological criteria / aspects of the learning activities for Romanian language and literature discipline	
A. Oral language (speaking)	Poor, deficient vocabulary	
	Lexical errors	
	Telegraphic language (short clauses)	
	Formulation deficiencies	
	Difficulties in understanding and formulating complex clauses	
	Difficulties in understanding and formulating elliptic, implicit clauses	
	Difficulties in formulating requests and asking questions	
	Difficulties in getting useful information	
	Difficulties in grasping the figurative sense	
	Difficulties in taking and continuing the ideas of others	
	Difficulties in critiquing the ideas of the others	
	Morphological difficulties	Deformations of words
		Substitutions of words
		Inversions of words
		"Matching" of words
	Syntactical difficulties	Topic inversions
Discords		
Semantic difficulties	Deformations of meanings	
	Wrong semantizations	
B. Writing (Method of writing)	Omissions of letters or syllables	
	Inversions of letters or syllables	
	Confusions of letters or syllables	
	Substitutions of letters or syllables	
	Cut or thickened words	
	Adding of letters or syllables	
	Too large or too small letters	
	Poor orientation / inclination of letters	
	Disproportions between letters (either large or small within the same word)	
	Page layout	
	Non-observance of orthography	
	Non-observance of punctuation signs	
	Illegible or hard-to-read writing	
	Substitutions by types in hand writing	

Field	Symptomatological criteria / aspects of the learning activities for Romanian language and literature discipline
C. Reading	Slow, difficult, syncopated reading
	Omissions and substitutions of words
	Distortions of words (poor pronunciation)
	Stumbling and getting blocked in reading
	Misunderstanding of content (even in a fluent reading)
	„Jumping” from one row to another, but which is different than the immediate one
	Reading by following words with one’s finger
	Alert rhythm with negative effect on the accuracy of the reading
	Monotonous reading and without intonation

As we can notice in the inventory presented, the identification of pupils’ learning difficulties with the Romanian language was made by following three important categories: oral language (speaking); writing (method of writing) and reading, on a five level frequency scale, which measured the frequency of learning difficulties: 1 – not at all; 2 – very little; 3-a little; 4- a lot; 5-very much.

The results for the three categories are presented in the table 4.

Table 4.

The results of the symptomatological inventory of pupils’ learning difficulties in the Romanian language

		1	2	3	4	5
A	Oral language (speaking)	6.82	15.45	21,42	30,21	26.1
B	Writing (method of writing)	3.2	8.12	19.45	43.22	26.01
C	Reading	11.32	19.15	17.4	31,19	21.3

The results registered following the use of this inventory were correlated with the ones obtained following the use of the other instruments too in the pretest phase. The initial level of the classrooms encompassed in the experiment was established especially the applied initial test (pretest).

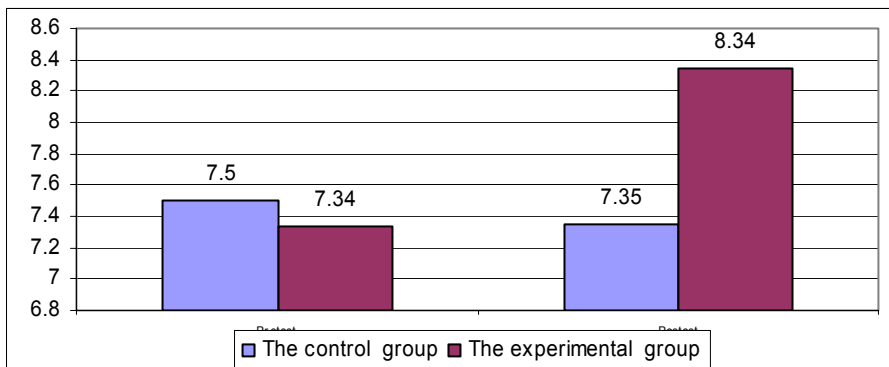
By applying the same instruments both after each sequence of the experiment and at the end (posttest), we could see the effects of the carried out ameliorative actions.

The results registered after the first sequence of the experiment, i.e. the one in which we used the graphic organizers within the activities carried out with the children, were compared with the initial ones. The conclusions drawn following the use of some methods of mathematical and statistical interpretation of data (the Z test, to establish the significance of the difference between two averages) led to the invalidation of the efficiency of these methods and instruments in diminishing the pupils' learning difficulties, that is, the improvement of their school results.

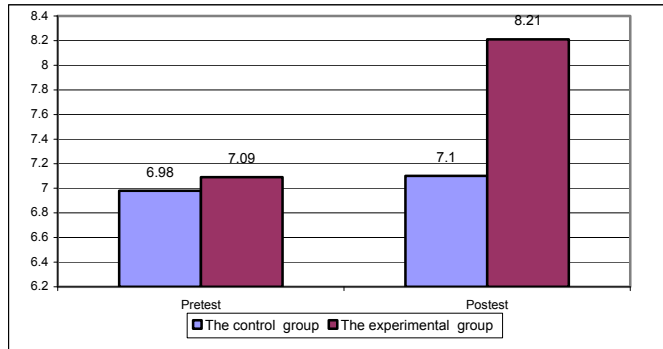
After the second sequence of the experiment, which consisted in introducing the independent variables regarding the promotion of models and methods based on cooperative and collaborative learning, we applied the same set of instruments used both at the beginning of the research and throughout, meaning: the grids, the inventories for identifying learning difficulties and the pedagogical tests of knowledge .

Starting from the premise that the efficiency of the suggested actional-methodological methods would be objectified in the improvement of pupils' school results, we used the same Z test to establish on one hand, the statistical relevance between the grades obtained for the terminal test and those for the initial test (pretest) and on the other hand, the statistical relevance between the averages registered by pupils at the end of the experiment and the averages registered at the beginning of the research.

The averages of the grades obtained by the pupils for the two applied tests (initial and final) are presented in the graphic no. 1, while the comparative averages for the Romanian language (pretest and posttest) can be found in the graphic no.2.

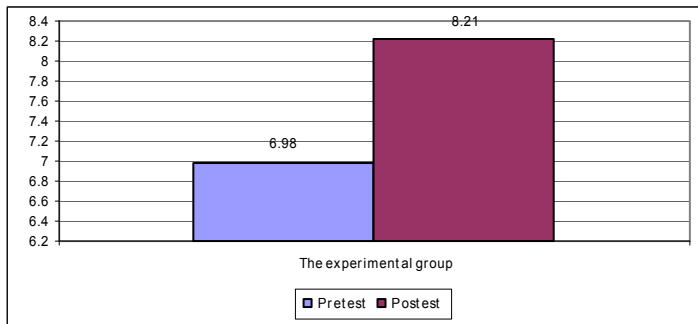


Graphic 1. The comparative results of the two groups of subjects, in pretest and posttest phases

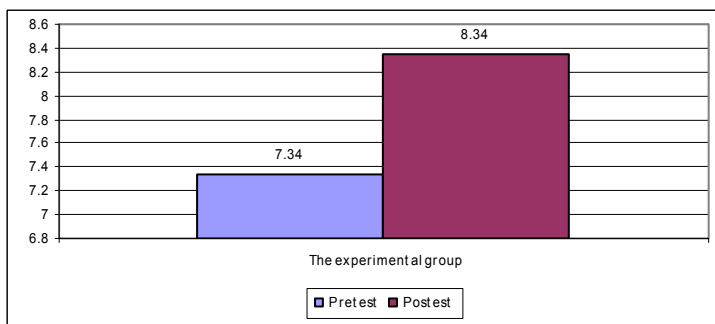


Graphic 2. Averages at school subject Romanian Language, in the pre-test and post-test stage

The comparison of results can be done not only between groups, but also at the level of the experimental group, in relation with the two different temporal moments – the pretest and the posttest (graphics 3 and 4).



Graphic 3. Comparison of the results obtained by the experimental group for the applied tests



Graphic 4. Comparison of the results obtained by the experimental group

To establish the statistical significance of the difference between the averages obtained for the applied tests or of the difference between the averages registered by the subjects for the Romanian language, we used the Z test and the results are presented in tables 5 and 6.

Table 5.

The statistical relevance of the difference between the average of the experimental group and that of the control group in the posttest phase

Group	Average (m)	Deviation (σ^2)	N	Value of Z	Statistical significance (p)
Control	7.1	2.13	125		0.01
Experimental	8.21	2.51	80	5.28	

Table 6.

The statistical relevance of the difference between the average of the experimental group in the posttest and the average in the pretest

Phase	Average (m)	Deviation (σ^2)	N	Value of Z	Statistical significance (p)
Pretest	6.98	2.24	80	5.12	0.01
Posttest	8.21	2.64	80		

Also to establish the efficiency of the proposed experimental ways, we established the statistical relevance of the difference between the averages registered for the Romanian language (tables 7 and 8).

Table 7.

The statistical relevance of the difference between the averages obtained for the Romanian Language by the subjects of the experimental group and the averages obtained by the subjects of the control group, in the posttest phase

Group	Average (m)	Deviation (σ^2)	N	Value of Z	Statistical significance (p)
Control	7.35	2.21	125		0.01
Experimental	8.34	2.42	80	4.58	

Table 8.

The statistical relevance of the difference between the averages obtained for the Romanian Language by the subjects of the experimental group in the posttest phase and those in the pretest phase

Group	Average (m)	Deviation (σ^2)	N	Value of Z	Statistical significance (p)
Control	7.34	2.11	80	4.34	0.01
Experimental	8.34	2.31	80		

In both cases, the value of Z is higher than 2.58, which allows us to state that the difference is significant at a significance threshold of 0.01.

Conclusions

The results allow us to draw some conclusions regarding the efficiency of several models, methods and instruments of constructivist teaching. Although lately, the constructivist paradigm has been considered more and more a necessary teaching alternative, it doesn't always prove to be efficient. In the case of children with learning difficulties (in our case – learning difficulties concerning the Romanian language), some of these methods did not lead to the expected results. Hence, the use of graphical organizers, as methods of structuring, organizing and systematizing information, did not lead to the reduction in the number and frequency of pupils' learning difficulties. Most of the times, these graphic instruments were applied not in a constructivist way, as an organizing modality of one's own knowledge, but in an algorithmic, routine way. The pupils laid more emphasis on the graphic representation itself, losing sight of the essence of the approach, that is, understanding and structuring the proposed knowledge. In this context, the use of these instruments led to the elimination of the constructivist teaching's principles, the orientation being rather a behaviorist one (a fact shown in the way the instruction regarding the realization and monitoring of instruments was conducted).

On the other hand, the models and methods of cooperative and collaborative learning proved their efficiency.

The activity carried out together with the others, as a continuation of the individual-independent activity helps children to correct their mistakes, misunderstandings and preconceptions by relating to the others. We must not forget also the role of the non-cognitive factors, especially motivation, which in the case of the group activity it is strongly stimulated.

We can conclude that for a “special” category of children, such as the one of the children with learning difficulties (without involving here the sphere of the special educational needs), certain instructive and educational practices acquire specific traits, which don't confirm always the valid generalizations for the category of children who do not have these difficulties.

REFERENCES

- Armstrong, T. (2009). *Multiplés intelligences in the classroom*. 3rd edition. Rexton: Association for supervision and curriculum development.
- Blow, B. (2008). Empowering to disempower: a dilemma when working with adults with learning difficulties. *Anthropology Matters Journal*, 10 (1). From: <http://www.anthropologymatters.com>
- Çiltaş, A., Tatar, E. (2011). Diagnosing Learning Difficulties Related to the Equation and Inequality that Contain Terms with Absolute Value. *International Online Journal of Educational Sciences*, 3(2), 461-473. From: http://www.iojes.net/userfiles/Article/IOJES_431.pdf
- Cooperstein, S.E., Kocevar-Weidinger, E. (2004). Beyond active learning: a constructivist approach to learning. *Reference Services Review*, 32 (2), 141-148. Emerald Group Publishing Limited. From: <http://www.unc.edu/~bwilder/inls111/111beyondactivelearningWED.pdf>
- Dee L., Devecchi, C., Florian, L., Cochrane, S. (2006). *Being, Having and Doing: Theories of Learning and Adults with Learning Difficulties*. LSRC research report. Blackmore Ltd, Shaftesbury, Dorset.
- Delahaie, M. (2009). *L'évolution du langage de l'enfant. De la difficulté au trouble. Guide ressources pour les professionnels*. Saint-Denis: Inpes. From: <http://www.inpes.sante.fr/CFESBases/catalogue/pdf/719.pdf>
- Doly, A-M. (2000). La metacognition pour apprendre à l'école. *Cahiers Pédagogiques*, 381, 40-41. Paris.
- Doly, A-M. (2002). Métacognition et transfert des apprentissages à l'école. *Cahiers Pédagogiques*, 408. Paris.
- Dubois, M., Roberge, J. (2010). *Troubles d'apprentissage: pour comprendre et intervenir au cégep*. Centre Collégial de Développement de Matériel Didactique. From: http://www.uquebec.ca/capres/Rech-pertinentes/Mesures-aide-apprentissage/tr_app_Troublesapprentissage.pdf
- Fichten, C.S., Ferraro, V., Asuncion, J.V., Chwojka, C., Barile, M., Nguyen, M.N., Klomp, R., & Wolforth, J. (2009). Disabilities and e-Learning Problems and Solutions: An Exploratory Study. *Educational Technology & Society*, 12 (4), 241-256. From: <http://www.adapttech.org/pubs/abDisabilitiesAndE-LearningProblems.pdf>
- Gardner H. (1996). *Les intelligences multiples*. Paris: Retz.

- Gardner, H. (2006). *Les intelligences multiples. New Horizons in Theory and Practice*. 2nd Revised edition. New York: Basic Books.
- Goleman, D. (1995). *Emotional Intelligence: Why It Can Matter More Than IQ*. New York: Bantam Books.
- Goleman, D. (2009). *Emotional Intelligence: Why It Can Matter More Than IQ*. Bloomsbury Publishing.
- Gülpinar, M.A. (2005). The Principles of Brain-Based Learning and Constructivist Models in Education. *Educational Sciences: Theory & Practice*, 5 (2), 299-306. From: <http://kimberlysheppard.wiki.westga.edu/file/view/The+Principles+of+Brain+Based+Learning+and+Constructivist+Models+in+Education.pdf>
- Jordan, N.C., Kaplan, D., Hanich, L.B. (2002). Achievement Growth in Children With Learning Difficulties in Mathematics: Findings of a Two-Year Longitudinal Study. *Journal of Educational Psychology*, 94 (3), 586–597. From: http://udel.edu/~njordan/jordan_achievement.pdf
- Lerner, J. (2003). *Learning disabilities: Theories, diagnosis, and teaching practices*. Boston: Houghton Mifflin Company.
- Mogonea, F.R. (2010a). Learning difficulties in the Classroom (*Dificultățile de învățare în context școlar*). Craiova: Universitaria Publishing.
- Mogonea, F.R. (2010b). Interpreting learning difficulties through the theory of multiple intelligences and the theory of emotional intelligence. *Studia Universitas, Psychologia – Paedagogia*, 1, 121-136. Cluj – Napoca.
- Mogonea, R., Mogonea, Fl. (2013). The Specificity of Developing Metacognition at Children with Learning Difficulties. *Procedia Social and Behavioral sciences*, 78, 155-159. From: <http://www.sciencedirect.com/science/article/pii/S1877042813008392>
- Mundia, L. (2012). The Assessment of Math Learning Difficulties in a Primary Grade-4 Child with High Support Needs: Mixed Methods Approach. *International Electronic Journal of Elementary Education*, 4(2), 347-366. From: http://www.iejee.com/4_2_2012/IEJEE_4_2_Mundia_347_366.pdf
- Perkins, D. (1999). Many Faces of Constructivism. *Educational Leadership*. From: <http://www.wou.edu/~girodm/library/Perkins.pdf>
- Perraudau, M. (2005). Les difficultés „ordinaires” d'apprentissage. *Aider les élèves*, 436. From: http://www.cahiers-pedagogiques.com/article.php3?id_article=1862
- Rowe, K. (2006). Effective teaching practices for students with and without learning difficulties: Constructivism as a legitimate theory of learning AND of teaching? *Student Learning Processes*, 7(1). From: http://research.acer.edu.au/learning_processes/10
- Steele, M.M. (2005). Teaching Students With Learning Disabilities: Constructivism Or Behaviorism? *Current Issues in Education*, 8(10). From: <http://cie.ed.asu.edu/volume8/number10/>
- Wang, G., Du, H., Liu, Y. (2009). Case Study on Improving High School Students with Learning Difficulties in Mathematics. *Journal of Mathematics Education*, 2 (2), 122-133. From: http://educationforatoz.com/images/_9734_10_Guangming_Wang.pdf

- Weegar, M.A.. (2012). A Comparison of Two Theories of Learning -Behaviorism and Constructivism as applied to Face-to-Face and Online Learning. *E-Leader Manila*. From:
<http://www.g-casa.com/conferences/manila/papers/Weegar.pdf>
- Westwood, P.S. (2003a). *Reading and learning difficulties: Approaches to teaching and assessment*. Camberwell, VIC: Australian Council for Educational Research.
- Westwood, P.S. (2003b). *Numeracy and learning difficulties: Approaches to teaching and assessment*. Camberwell, VIC: Australian Council for Educational Research.
- Westwood, P.S. (2004). *Learning and learning difficulties: A handbook for teachers*. Camberwell, VIC: Australian Council for Educational Research.
- Westwood, P.S. (2006). *Teaching and learning difficulties: Cross-curricular perspectives*. Camberwell, VIC: Australian Council for Educational Research.
- Winebrenner, S. (2006). *Teaching Kids with Learning Difficulties in the Regular Classroom. Ways to Challenge&Motivate Struggling Students to Achieve Proficiency with Required Standards*. (revised and updated Edition). Mineapolis: Free Spirit Publishing

ANNEX. OBSERVATION OR EVALUATION GRIDS
(Mogonea, 2010a, 277-280)

a) Evaluation grid of pupils' quality of reading

Criteria	Not at all	Very little	A little	A lot	Very much
Correct pronunciation of all words					
Compliance with the punctuation					
The reading pace offers the possibility for understanding					
Compliance with the logical pauses of the text					
Fluent reading, without stumbling					
Other criteria.....					

b) Evaluation grid for a debate

Criteria	Not at all	Very little	A little	A lot	Very much
Watches carefully the interventions of colleagues					
Gets involved in discussions at the right moment					
Brings pertinent arguments					
Respects the others' ideas and opinions					
Argues own ideas					
Other criteria.....					

c) Evaluation grid for building a dialogue

Criteria	Not at all	Very little	A little	A lot	Very much
Uses the same code with the discussion partner					
Questions/answers are in compliance with the dialogue topic					
Uses mimics, gestures and motions in completing the related events					
Prolongs the dialogue using additional questions					

Criteria	Not at all	Very little	A little	A lot	Very much
Leaves time for argumentation to the person dialoguing with					
Other criteria.....					

d) Evaluation grid for an argumentation

Criteria	Not at all	Very little	A little	A lot	Very much
Complies with the argumentative speech (hypothesis, arguments, explanations, conclusions)					
Uses causality, consequence and conclusion connectors (<i>since, that, therefore, etc.</i>)					
Uses correlative elements pointing out cause-effect relations (<i>if...then, the more...the..., etc.</i>)					
Uses pertinent arguments, gradually ordered					
Uses a clear wording/ narration					
Persuasion power over the audience through overall impression					
Other criteria.....					

e) Evaluation grid of the narrator

Criteria	Not at all	Very little	A little	A lot	Very much
Respects the logical chain of events					
Relates important events and gives significant details					
Gives a personal touch to the facts related					
Gets critically involved in narration					
Suggests topics, ideas for reflection and formulates hypotheses					
Other criteria.....					

f) Evaluation grid for the interpretation of a dramatic text (dialogued)

Criteria	Not at all	Very little	A little	A lot	Very much
Clarity of utterance of lines					
Compliance with didascalies (footnotes, scenic explanations between brackets)					
Compliance with the punctuation, fluency of utterance					
Use of intonation, mimics, gestures and motions, tone, volume, rhythm, scenic movement					
Nuanced, original and persuasive interpretation					
Other criteria.....					

g) Evaluation grid of the summarizing

Criteria	Not at all	Very little	A little	A lot	Very much
Identifies the narrated happenings and presents them					
Uses third person in narration					
Neutral narration with no emotional/personal attachment					
Transforms direct speech into indirect speech					
Clear and coherent expression					
Other criteria.....					

h) Evaluation grid of the activity of oral expression

Criteria	Not at all	Very little	A little	A lot	Very much
Speaks and listens with confidence					
Tells anecdotes regarding personal experience					
Uses an appropriate language					
Keeps up the interest for dialogue					
Clarifies and changes ideas					
Expresses feelings					
Can build ideas based on what the					

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Criteria	Not at all	Very little	A little	A lot	Very much
previous speakers have said					
Accepts different points of view					
Mediates, ends conflicts					
Looks up for various solutions and suggests new areas of discussion					
Changes and adapts ideas					
Explores and asks questions					
Initiates conversations with the teacher					
Accepts and adopts leading roles of the group					
Adapts to the audience's reactions					
Presents information					
Can be heard and understood					
Narrates and summarizes events, facts and happenings					
Persuades, motivates, compares, defends					
Gives instructions and explanations					
Reads aloud, clear, correct and nuanced					
Transmits states of mind, feelings and ideas					
Understands the role of nonverbal and paraverbal elements within the oral communication and uses them					

