

“BABEȘ-BOLYAI” UNIVERSITY CLUJ-NAPOCA
Faculty of Psychology and Science of Education

PhD THESIS

ABSTRACT

SCIENTIFIC COORDINATOR:
Prof. MIRON IONESCU Ph D

PhD student:

Prof. CODREANU (IORDACHE)
MIHAELA-LUMINIȚA

Cluj-Napoca
2011

“BABEȘ-BOLYAI” UNIVERSITY CLUJ-NAPOCA
Faculty of Psychology and Science of Education

ABSTRACT OF DOCTORAL THESIS

**KNOWLEDGE AND STIMULATING THE CREATIVE CAPACITY
OF LITTLE PUPIL**

SCIENTIFIC COORDINATOR:
Prof. MIRON IONESCU Ph D

PhD student:

Prof. CODREANU (IORDACHE)
MIHAELA-LUMINIȚA

Cluj-Napoca
2011

KNOWLEDGE AND STIMULATING THE CREATIVE CAPACITY OF LITTLE PUPIL

ABSTRACT

KEY WORDS

Creativity, school, knowledge, stimulating, creative capacity, primary school, small school, creative learning, teaching, skills, methods, education, formative experiment, extracurricular activities, extracurricular activities, creative training, questionnaire, interview guide, tests of knowledge , school performance.

Doctoral thesis The Knowledge and stimulating the creative capacity of little pupil aims to identify as many aspects of knowledge and creative ability of the pupil than stimulation by creating a favorable learning environment to nurture students' curiosity, developing their creative skills essential for achievement of the learning process.

Pedagogical approaches to encourage pupils' creativity include time, space and an appropriate set of tools to stimulate innovation and uniqueness by involving students in their higher level thinking skills. Outside school, creativity can be encouraged through such extracurricular activities, which can complement the classroom learning activities.

To the knowledge of creative ability of pupils in classes I-IV specific tools are needed psychological and pedagogical. What you need to mention is that targeting based on knowledge of teaching psychological skills, interests, skills pupils, helps us to have an effective educational activity.

Following the general characteristics of personality of students we can know their creative ability. This leads us to believe that creative ability is the result of a wide circle of influence determined by the quality of students' creative thinking. Therefore the thought process behind the creativity is indeed a skill powerful which brings a wide range of skills of character order and opportunities to enhance pupils thinking better. Therefore, pupils creative ability is very difficult to measure because it may manifest in different ways. Ensure that each pupil has their own experience, we find that the methods used in developing the creative thinking that works well for a student can lead to great frustration for another student. So it is necessary to develop their own style of thinking that helps

students to express their creative thoughts and ideas in unique ways. Thus, the creative potential of each student put it in value by use of methods and techniques that provide opportunities for individual expression and social value.

In carrying out these complex process, daily observations on students helps us to discover strengths, fears and fantasies, freeing them from fear of being mistaken or misunderstood. In this context, we provide a creative learning student, to offer its own initiative, work independently, confident and positive reaction to environmental demands.

Educational relationship with the attitude of teachers in the classroom and outside it is for primary school, the essential factor to stimulate their creative ability to borrow because of the tendency of educator's views and values. In fact, driving the creative ability of students achieve a comprehensive approach that includes activation events, training, cultivation and development of their creative potential that can benefit throughout their schooling.

In the system of methods and techniques of animation, imagination, creativity is identified due to the emotional and psychological principals their and spontaneous performance, relatively unconscious mechanisms of creation.

Undertake activities outside the classroom using creative methods, allowing students leaving a system known and discovering other ways of thinking. Associations and combinations of objects or phenomena and assessment of elements are removed, simulating the creative ability of students leading to the appearance of original ideas.

In Chapter I *THEORETICAL APPROACHES ON CREATIVITY*, we focused on the term creativity as individual and cultural phenomenon, which can always turn possibilities into reality.

Definitions of creativity are made depending on the context, each with its own set of goals and objectives that suggests a cognitive approach to develop judgments about creativity by focusing on the creative person's general skills, the creative process and the subjective and objective factors leading to the achievement of the original product. In education, focus on teaching scientific reasoning taking into account the type of problem contexts in which knowledge and skills students are used. Starting from the consideration that each child is endowed with the potential to be creative in this study we tried to find the teaching experiment, whether and how do primary school teachers to know students'

latent abilities, when used creative methods. We believe that creativity in schools involves "playing with ideas", in all curricular areas, for which teaching is not restricted to the creative class than how the teacher manages and organizes learning.

Pupil's creativity can be enjoyed by making the experiment in tongue and communication, mathematics, sciences and of the nature, in art, in musical education and natural sciences and others which help students in acquiring unusual perspectives to make connections.

Numerous approaches to studying creativity that include major guidelines on explaining this complex phenomenon describing the nature of the creative process, emphasizes development as an expression of creative talent of students, promoting creative behavior, support for creative learning and other concepts.

One of the theories with a profound impact on thinking and practice in education is designed and applied multiple intelligences theory of Howard Gardner to understand creativity. For him each combination of these intelligences completed the curricular and extra-curricular activities, creates a unique profile that encourages high-level creative thinking abilities of students.

Taking a creative but can flourish in the early school years, we appeal to a number of factors, such as learning, experience, motivation, imagination and personality.

For many primary school pupils spontaneously curiosity, independence, imagination, creativity that some features of the training, the behavior of their creator's intellectual development presupposes a harmonious. Also, methods of teaching and learning that emphasizes creativity can have a profound effect on student motivation, to develop their creative behavior.

Chapter II *SCHOOL, IMPORTANT FACTOR IN KNOWLEDGE AND STIMULATE CREATIVE ABILITY*, guided the pupils creativity as a process and as product and the methods used to stimulate knowledge and creative ability of small pupil.

The school, defined by attributes that accessibility, creativity, flexibility and continuity (V. Chiş, 2002, p. 36), is the main factor that can contribute decisively to exploit the potential creativity of students, stimulate their creative inclinations and creativity education. School has the responsibility to act to stimulate the creative potential of students in the following areas:

- identify the creative potential of students, creating premises gnoseologic creative activity;
- develop individual communication opportunities, to facilitate implementation of the results of creation to the company;
- dynamic individual creative potential, adequate capitalization purposes of cultivation of talents and creative attitudes.

Therefore, socio-cultural climate in which the student grows not only influences the formation and affirmation of creativity, but also the manifestation of creative performance in concrete production units.

Process creation was the subject of research for many psychologists and educators. The most famous Englishman Graham Wallas belongs in 1926, which established that this process through four stages: preparation, incubation, inspiration and verification.

We note that the product is a new creation from past experience of the student to find a solution to a problem. Thus, the product creation is two additional criteria: originality and relevance of student performance by enabling self its spontaneous behavior and new and original products made by him. Through them, the creative product reflects the complexity of correlations between subject and object.

Also in Chapter II orient our attention on the ability of teachers to know and to stimulate creative ability of small pupil correlated using several methods.

Knowledge of pedagogical methods is the main structural components in the knowledge of small pupil personality. With their help, the teacher captures the structure of the pupil representative of mental traits, different weight can occur with different educational roles.

In addition to other methods, questionnaire survey method has helped us to know the expectations and impressions sincere about fostering knowledge and creative ability of pupil.

Student questionnaire is a questionnaire containing questions mixed views open / free, leaving the pupil an opportunity to answer himself, closed questions which allow

you to choose a choice questions by marking an X and semi-enclosed in addition contain explicit set of options, yet a type “If yes, give examples, other situations”.

Teacher questionnaire data is a joint questionnaire containing questions of fact and opinion, leaving open the possibility of making one response subject, questions containing semi-enclosed addition to the set of explicit choices, still one or two of a kind ”If so, how / If not, what other situations” and a closed question (trichotomy) that allows selection of a choice by marking an X.

Methods to stimulate creativity can be defined as a system of sub-processes, multi-oriented pupils mental development by providing opportunities to try new ideas, new ways of thinking and solving problems.

Therefore, the primary attention should be directed to the need to bring creativity in learning through the promotion of appropriate strategies. Creative teaching strategy for a school project organization is a learning situation by following chains of which the student acquires new knowledge, skills, abilities and skills.

Encourage pupils to learn beyond the store and use the deeper levels of thinking and supporting teachers in implementation of creative teaching strategies are beneficial for both teachers and pupils.

Therefore, primary school is thus a research laboratory in which new knowledge is applied held on curricular content through the use of specific tools that a creative environment.

Chapter III STAGE OBSERVANT, it helps to highlight the actual situation of the schools included in the survey, in terms radiography situation classes I-IV, the issue of “The Knowledge and stimulating the creative capacity of little pupil”.

The sample of subjects under investigation observant of two main categories of subjects covered, so 247 students were surveyed and interviewed 52 teachers and 24 pupils.

Investigative approach to ascertaining the research conducted in Semester II of the 2008-2009 school years and the beginning of school year 2009-2010. At this stage data were identified at the start of the experiment existing home teaching. Among the methods used in this phase include:

- Discussions with teachers who teach in grades I-IV.

- Recovery of data from systematic observation of pupils' work and behavior.
- Complete initial assessment tools of evidence (knowledge tests, rating scales, questionnaires for teachers and pupils, interview guide for students).
- Recovery results obtained by experimental and control sample, after applying an initial test.

The data obtained after working tools at this stage have resulted:

- some pupils prefer the discipline and development of thought depends on the imagination, especially when combined similar concepts in the subjects that they find they have chosen as preferred;
- pupils existence is the manifestation of creativity in thinking deeply reflected by increasing levels of thinking in addressing problems encountered in the subjects in primary;
- the main characteristic of the creative thinking of pupils is new or originality solution found, which can be grown in all disciplines;
- a teaching-learning strategy used by teachers leads pupils to acquire knowledge independently, to find original solutions to various problems and to creatively apply their knowledge in diverse situations.

Chapter IV EXPERIMENT AND RESULTS FORMATIVE - PROJECT ON KNOWLEDGE AND STIMULATING CREATIVE CAPACITY OF LITTLE PUPIL formative experiment has proposed new design.

The aim of this intervention was aimed at identifying and taking advantage of ways to improve educational practice by developing interest and motivation for study of primary school pupils in order to seek and stimulate their creative capacity.

To achieve this goal, several objectives were established that have emerged as the points reached during the course of the experiment conducted, among them are:

- drafting a more accurate picture of the actual situation as the Romanian language and literature courses and mathematics, following completion of an initial assessment reporting this specific objectives of classes I-IV;
- build and use a rich range of instruments (tests of knowledge, the schedule lists topics created new, specific activities to stimulate creativity in order to achieve assessments during experimental phase;

- developing an intervention program, in collaboration with teachers and parents of pupils in experimental classes, major education as factors in the discovery, unlocking the creative potential and development;
- carrying out activities to develop pupils ability to creatively solve problems without fear of being wrong, encourage them in to showcase their individuality, aiming to transfer creative skills in the sphere of the educational process;
- assessment of teachers in primary concerns about the methods and techniques to stimulate pupils creative ability of school age;
- planning and carrying out extra-curricular and extracurricular activities complementary school activities;
- determining the way in which extracurricular life and pupils motivation influences the capacity for creative disciplines.

Conduct experimental phase took place during the second semester I and class II, class III and IV, from October 15 to May 30 in the 2009-2010 school year. At this stage the objective was the implementation of the independent variable, the action taken on the experimental sample.

The sample of 160 students in the experimental phase was divided into two groups: one consisting of three experimental classes of 80 pupils and all other control consists of three classes with 80 pupils.

At this stage of research, we propose the preparation of lists of issues encountered in the current curriculum in which we introduce new topics that can be worked as additional hours in extracurricular activities.

Extracurricular activities conducted at the experimental classes as compulsory curricular activities, both targets were formative. The advantage of these activities focused on fostering independence in thought and action of pupils by developing a spirit of cooperation and tolerance thereof.

Chapter V ANALYSIS AND INTERPRETATION OF RESEARCH RESULTS, we orient attention to the results of formative assessment conducted in the experimental stage, post-experimental and distance experimental (retest).

Doing a review of results achieved by pupils in the experimental group, our findings supported and demonstrated in all stages of research findings lead us to formulate the evolution of this important group.

Although there can be a good student in school to identify those who have high levels of creativity, the results of investigation show that training brings positive changes you want creative, both in terms of intellectual level and on the creativity of pupils .

Conclusions

Formative assessment tests (T1, T2, T3, T4) conducted during our research confirmed an upward trend in grades experimental school performance.

This is to confirm the effectiveness of formative activities undertaken at the experimental group; the opportunities offered by extracurricular activities, by making a great workout with stretching the creative intellectual side were able to develop skills in acquiring new knowledge, flexibility in thinking and solving problems creatively.

Therefore, educating creative thinking of pupils through various teaching methods and techniques used by the teacher determines the pupils to use their imagination, to deliver new solutions to solve various problems experienced in developing their own search for new and increased knowledge objects preferred study for each of them.

Creativity is thus a fundamental problem of the whole educational process in classes I-IV and beyond, meaning that its native and social premises must be known since the early age, that teacher to work with the most effective pedagogical methods and methodical, both in the act of teaching and learning through activities outside the classroom.

The teacher is one who needs to track pupil's creative talents and development environment to ensure their creative capacity. He should encourage imagination, fantasies and creative suggestions of pupils. When the imagination of pupils going through a time of tumult, the teacher should let the ideas flow, to observe the way in which pupils solve unusual problems, the way they ask questions.

In conclusion, knowledge and creative ability of the pupil than stimulation is a key factor in education related to the personality of the teacher and pupil, and socio-emotional climate in which they operate.

References

- Albu, G., (1998), *Introducere într-o pedagogie a libertății*, Editura Polirom, Iași.
- Albulescu, I., Albulescu, M., (1999), *Didactica disciplinelor socio-umane*, Editura Napoca Star, Cluj- Napoca.
- Allport, G., (1981), *Structura și dezvoltarea personalității*, Editura Didactică și Pedagogică, București.
- Amabile, T. M., (1997), *Creativitatea ca mod de viață. Ghid pentru părinți și profesori* Editura Știință și Tehnică, București.
- Bocoș, M., (2002), *Instruire interactivă. Repere pentru reflecție și acțiune*, Ediția a II-a, revăzută, Editura Presa Universitară Clujeană, Cluj- Napoca.
- Bocoș, M., (2003), *Teoria și practica cercetării pedagogice*, Editura Casa Cărții de Știință, Cluj- Napoca.
- Bocoș, M., (2007), *Teoria și practica cercetării pedagogice*, Casa Cărții de Știință, Cluj- Napoca.
- Bruner, J. S., (1970), *Pentru o teorie a instruirii*, Editura Științifică, București.
- Cerghit I., Neacșu I., (1982), *Metodologia activității didactice, în Didactica (coord. D. Salade)* Editura Didactică și Pedagogică, București.
- Cerghit, I., (2006), *Metode de învățământ*, Editura Polirom, Iași.
- Chaplin, J.P., (1995), *Dictionary of Psychology*, ediția a III-a revăzută, The Bantam Doubleday Dell Publishing Group Inc.
- Chelcea, S., (2001), *Metodologia cercetării sociologice. Metode cantitative și calitative*, Ediția a II-a, Editura Economică, București.
- Chiș, V., (2002), *Provocările pedagogiei contemporane*, Universitatea „Babeș- Bolyai”, Presa Universitară Clujeană, Cluj- Napoca.
- Chiș, V., (2005), *Pedagogia contemporană- pedagogia pentru competențe*, Editură nouă Revizuită, Colecția Științele Educației, Casa Cărții de Știință, Cluj- Napoca.
- Cioca, V., (2007), *Jocul de- a arta*, Editura Limes, Cluj- Napoca.
- Cosmovici, A., Iacob, L., (2005), *Psihologie școlară*, Editura Polirom, Iași.
- Crețu, C., (1997), *Psihopedagogia succesului*, Ed. Polirom, Iași.
- Crețu, C., (1998), *Curriculum diferențiat și personalizat*, Editura Polirom, Iași.

- Cristea, S., (2008), Curriculum pedagogic, Editura Didactică și Pedagogică, București.
- Cucoș, C., (1996), Pedagogie, Editura Polirom, Iași.
- Cucoș, C., (2000), Educația. Dimensiuni culturale și interculturale, Editura Polirom, Iași.
- Dacey, J. S., (1989), Fundamentals of creative Thinking, Lexington Books, NY.
- Dave, R. H., (1991), Fundamente ale educației permanente, Editura Didactică și Pedagogică, București.
- Davis, G. A., (1999), Barriers to Creativity and Creative Attitudes, Encyclopedia of Creativity, Academic Press, vol. 1.
- Davis, G. A., Rimm, S. B., (2004). Education of the Gifted and Talented (5th ed.). Boston: Allyn and Bacon.
- Debesse M., (1970), Psihologia copilului, Editura Didactică și Pedagogică, București.
- Debesse M., (1981), Etapele educației, Editura Didactică și Pedagogică, București.
- De Bono, E., (1967), New think; the use of lateral thinking, Basic Book, New York.
- De Bono, E., (2006), Gândirea Laterală, Editura Curtea Veche, București.
- De Bono, E., (2008), Șase pălării gânditoare, Ediția a III- a, Editura Curtea Veche, București.
- Drever, J., (1992), Dictionary of Psychology, Penguin Books, New York.
- Dulamă, M.E., (2002), Modele, strategii și tehnici didactice activizante, Editura Clusium, Cluj-Napoca.
- Gardner, H., (1982), Art, mind, and brain: A cognitive approach to creativity. New York: Basic Books.
- Gardner, H., (1993), Frames of Mind: The theory of multiple intelligences, Basic Books, New York.
- Gardner, H. (1999), "Intelligence Reframed: Multiple Intelligences for the 21st Century" Basic Books, New York.
- Gardner, H. (2006), "Multiple Intelligences. New Horizons" Basic Books, New York - Ediție revizuită și completată - Tradusă în limba română la Ed. Sigma, București.
- Gherghina, G., (1999), "Limba Română în școala primară", Editura Didactică Nova, Craiova.

- Golman, D., (2001), *Inteligența emoțională*, Editura Curtea Veche, București.
- Golu, M., (1993), *Dinamica personalității*, Editura Geneze, București.
- Guilford, J. P., (1950), *Creativity*. *American Psychologist* (American Psychological Association), Volume 5.
- Guilford, J.P., (1954), *Psychometric methods*. 2nd ed. McGraw-Hill series in Psychology, New York: McGraw-Hill.
- Guilford, J. P., (1967), *Natura inteligenței umane*, McGraw-Hill, New. York.
- Guilford, J. P., (1975), *Creativity: A quarter century of progress*. In I.A. Taylor & J.W. Getzels (Eds.), *Perspectives in creativity*, Chicago: Aldine.
- Iluț, P., (1997), *Abordarea calitativă a socioumanului. Concepte și metode*, Editura Polirom, Iași.
- Ionescu, M., (1991), *Preocupări actuale în didactică*, Editura Universității “Babeș-Bolyai”, Cluj-Napoca.
- Ionescu, M., Chiș, V., (1992), *Strategii de predare și învățare*, Ed. Științifică, București.
- Ionescu, M., (1998), *Educația și dinamica ei*, Editura Tribuna Învățământului, București.
- Ionescu, M., (2000), *Demersuri creative în predare și învățare*, Editura Presa Universitară Clujeană, Cluj-Napoca.
- Ionescu M., Radu, I., Salade, D.,(coord) (2000), *Studii de pedagogie aplicată*. Editura Presa Universitară Clujeană, Cluj-Napoca.
- Ionescu, M., Radu, I., (2001), *Didactica modernă*, Editura Dacia, Cluj- Napoca.
- Ionescu, M., (2007), *Instrucție și educație*, Ediția a III-a revizuită și adăugită, ”Vasile Goldiș” University Press, Arad.
- Iucu, R., (2006), *Managementul clasei de elevi*, Editura Polirom, Iași.
- Ivcevic, Z., Brackett, M, A., & Mayer J. D., *Emotional Intelligence and Emotional Creativity*, *Journal of Personality*, April 2007, Blackwell Publishing, Inc.
- Jung, C. G., (1966), *The Spirit in Man, Art, and Literature*, New Jersey: Princeton University Press /Bollingen.
- Moraru, I., (1995), *Știința și filosofia creației*, Editura Didactică și Pedagogică, București
- Moore, A.D., (1975), *Invenție, descoperire, creativitate*, Editura Enciclopedică Română, București.
- Munteanu, A., (1994), *Incursiuni în creatologie*, Editura Augusta, Timișoara.

- Neacșu, I., (1990), Metode și tehnici de învățare eficientă, Editura Militară, București.
- Neacșu, I., Dascălu, Gh., Roșu, M., Radu, H., Roman, M., Tăgârță, V., Zafiu, Gh., (1988), Metodica predării matematicii la clasele I-IV, Editura Didactică și Pedagogică, București.
- Nicola, I., (1996), Tratat de pedagogie școlară, Editura Didactică și Pedagogică, București.
- Nicola, I., (2002), Tratat de pedagogie școlară, Editura Aramis, București.
- Opreșcu, V., (1991), Aptitudini și atitudini, Editura Științifică, București.
- Osborn, A. F., (1963), Applied imagination: Principles and procedures of creative problem solving (Third Revised Edition), New York, NY.
- Păun, E., Potolea, D., (coord.), (2002), Pedagogie. Fundamentări teoretice și demersuri aplicative, Editura Polirom, Iași.
- Planchard, E., (1992), Pedagogia școlară contemporană, Editura Didactică și Pedagogică, București.
- Popescu, G., (2007), Psihologia creativității, Editura Fundației România de Măine, București.
- Popescu-Neveanu, P., (1978), Dicționar de Psihologie, Editura Albatros, București
- Popescu-Neveanu, P., Fischbain, (1971), Psihologia generală, Editura Didactică și Pedagogică, București.
- Popescu-Neveanu, P., Zlate, M., Crețu, T., (1999), Creativitatea în Psihologie-manual pentru clasa a X-a, Editura Didactică și Pedagogică, R.A., București.
- Radu, I. T., (1981), Teorie și practică în evaluarea eficienței învățământului, Editura Didactică și Pedagogică, București,
- Roco, M., (1979), Creativitatea individuală și de grup, Editura Academiei, București.
- Roco, M., (2004), Creativitatea și inteligența emoțională, Editura Polirom, Iași.
- Roșca, Al., (1972), Creativitatea, Editura Enciclopedică Română, București.
- Roșca, Al., (1981), Creativitatea generală și specifică, Editura Academiei, București.
- Rotariu, T., Iluț, P., (1997), Ancheta sociologică și sondajul de opinie, Polirom, Iași.
- Rusu, E. C., (2007), Psihologie cognitivă, Editura Fundației România de Măine, București.

- Sălăvăstru, D., (2004), Psihologia educației, Editura Polirom, Iași.
- Sillamy, N., (1983), Dictionnaire Usuel de la Psychologie, Bordas, Paris.
- Sillamy, N., (2000), Larousse. Dicționar de psihologie, Editura Univers Enciclopedic, București.
- Stanciu, M., (1999), Reforma conținuturilor învățământului, Editura Polirom, Iași.
- Starko, A. J., (1995), Creativity in the classroom. White Plains, NY: Longman.
- Stoica, A., (1983), Creativitatea elevilor, Editura Didactică și Pedagogică, București.
- Stoica, M., (2002), Pedagogie si psihologie, Editura Gheorghe Alexandru, Craiova.
- Stein, M. I., (1975), Stimulating creativity, volumul 2, Group Procedures, New York, Academic Press.
- Stein, M. I., (1993), Moral issues facing intermediaries between creators and the public. Creativity Research Journal.
- Stroe, M., (coord.), (1999), Competența didactică. Perspectivă psihologică, Editura All, București.
- Șchiopu, U., Verza, E., (1981), Psihologia vârstelor, Editura Didactică și Pedagogică, București.
- Șchiopu, U., (1997), Dicționar de Psihologie, Editura Babel, București.
- Văideanu, G., (1975), Interdisciplinarite, U.N.E.S.C.O.
- Văideanu, G., (1988), Educația la frontiera dintre milenii, Editura Politică, București.
- Verza, E., Verza, F. E., (2000), Psihologia vârstelor, Editura Pro Humanitas, București.
- Wallas, G., (1926), The Art of Thought. New York: Harcourt, Brace & World.
- Zlate, M., (1994), Fundamentele psihologiei, Editura XXI, București.
- Zlate, M., (1999), Psihologia mecanismelor cognitive, Editura Polirom, Iași.
- Zlate M., (2000), Introducere în psihologie, Ediția a III-a, Editura Polirom, Iași.

Official Documents

- *** Legea învățământului nr. 1/2011, publicată în Monitorul Oficial al României, nr. 18 din 10 ianuarie 2011
- *** Legea învățământului nr. 84/1995, republicată în Monitorul oficial al României, nr. 606, Partea I din 10 decembrie 1999

- *** Evaluarea în învățământul primar – descriptori de performanță, SNEE, București, 1998
- *** Ghid metodologic pentru aplicarea programelor de Limbă și literatură română învățământ primar și gimnazial, (2002), Ministerul Educației și Cercetării, C.N.C.
- *** Ghid metodologic pentru aplicarea programelor de matematică – învățământ primar și gimnazial, (2001), Ministerul Educației și Cercetării, C.N.C.
- *** Programa școlară pentru clasa a II-a, Aria curriculară ”Limbă și comunicare” și Aria curriculară ”Matematică și Științe ale naturii”, (2003), București, Ministerul Educației și Cercetării, Consiliul Național pentru Curriculum
- *** Programa școlară pentru clasa a III-a, Aria curriculară ”Limbă și comunicare” și Aria curriculară ”Matematică și Științe ale naturii”, (2004), București, Ministerul Educației și Cercetării, Consiliul Național pentru Curriculum
- *** Programa școlară pentru clasa a IV –a, Aria curriculară ”Limbă și comunicare” și Aria curriculară ”Matematică și Științe ale naturii”, (2005), București, Ministerul Educației și Cercetării, Consiliul Național pentru Curriculum.