

**"BABEŞ - BOLYAI" UNIVERSITY**  
**CLUJ - NAPOCA**  
**FACULTY OF PSYCHOLOGY AND EDUCATIONAL SCIENCES**  
**DOCTORAL SCHOOL "EDUCATION, REFLECTION,**  
**DEVELOPMENT"**

# **THE DOCTORAL THESIS**

## **EXTENDED SUMMARY**

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**FUNCTIONAL CREATIONS THROUGH THEMATIC  
PROJECTS AT THE DISCIPLINE VISUAL ARTS AND PRACTICAL  
SKILLS AT THE FUNDAMENTAL PURCHASES LEVEL**

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**Keywords:** creativity, art, functional creations, thematic projects, degree of comprehension, work techniques, originality, semantic abstraction, elaboration, skills.

## **EXTENDED SUMMARY**

The doctoral thesis with the title " Functional creations through thematic projects at the discipline Visual arts and practical skills at the fundamental purchases level" the use of heuristic strategies, similar to scientific research, leads to obtaining good results in terms of the thorough acquisition of knowledge, of the formation of skills, abilities etc." (Răduț-Taciu R., 2003, p.78).

The purpose of the thesis is to highlight the importance of the thematic projects used in research for the training and development of the competence to create functional creations using various materials and work techniques promoting the performance of students and the subsequent educational success at the level of fundamental acquisitions.

Our research has as its starting point the following general hypothesis:

If we apply thematic projects to the Visual Arts and practical skills discipline, then we obtain performance in the students' creative activity, materialized in the ability to make functional creations.

Reducing school failure of students by promoting educational success and on-time performance are priority objectives in primary education at the level of fundamental acquisitions and constitute the research problem of the thesis.

The work develops in its content two sections or parts, one theoretical and one application: part I - Theoretical foundation and part II - Experimental approach. I follow multiple relationships of continuity and reciprocity between the two parts of the thesis.

In Chapter I, entitled *Creativity, intelligence and personality*, we present the concept of creativity from traditional to modern. The creative act should not be considered a single event, but a process of interaction between cognitive and affective elements that is composed of two phases, a generative one in which the creative mind imagines a series of new mental models as potential solutions to a problem, and an exploratory or evaluative, one where different options are evaluated and then the best one is selected.

The concept of creativity has changed over time, in fact, while it was initially considered an innate gift exclusive to a few select individuals, it was later discovered to be a possible acquisition transforming it into something present in all human beings.



Creativity is not a unique property, but is the result of complementarity between deduction and intuition, between reason and imagination, between emotion and reflection, between divergent and convergent thinking.

The link between creativity and emotions is much more complex than it may seem, as it appears to be governed by the interaction between emotion and motivation.

Creativity is therefore the ability to change, to get out of the box, from things that are commonly accepted. The creative mind is ready to learn what it needs at any given opportunity and to change its views when the right one comes along. As Umberto Eco writes, creativity is combinative: the ability to combine elements that already exist in an unprecedented way, to combine the old in new connections to assume new behaviors and achieve new creations.

Creativity has been understood and studied by various scientists, mainly in the last century, including Dewey and Wallas, Torrance, Osborn, Parnes, Isaksen and Treffinger.

The father of psychoanalysis is certainly Sigmund Freud, who believed that human behavior can be explained by examining the conflicts between unconscious desires and expected external behavior (Popa, D. M., 2020). He posited three aspects of human personality:

1. the ego (conscious logical mind);
2. id (unconscious primitive guide);
3. the superego (a consciousness-like force that acts as a mediator between the first two).

He linked creativity to the sublimation of forces originating in the id, which is unconditional source of desire and attraction. If an individual cannot freely express his desires, these desires must find an outlet in other ways or be sublimated... Many defense mechanisms lead to unhealthy and neurotic behaviors. Creativity, on the other hand, is the healthy form of sublimation, which uses unfinished unconscious forces for productive purposes.

Humanistic theories focus on normal growth and development of mental health, seeing creativity as the culmination of well-structured mental development.

According to Maslow, people who have a high level of self-actualization tend to do everything creatively. They are more spontaneous and expressive than average, more natural and less inhibited.

Rogers (1961) also saw creativity as a consequence of human growth, through the interaction of an individual with the environment (Gheorghiuță, C., 2020).

Thinking and creativity are important elements of intelligence.

According to the theory developed by Guilford, one of the first to study the characteristics of divergent thinking, creative thinking is characterized by the following aspects: fluidity, flexibility, originality, elaboration, evaluation.

These characteristics are fundamental to identifying a thought that deviates from the rational one and allow you to see things from different perspectives. Divergent thinking is not always functional compared to convergent and logical thinking. True success and achieving great results may lie in the middle. Therefore, it is important to increase the connection between the two hemispheres: the right one, the seat of creativity and divergent thinking, and the left one, which aims at logical-rational thinking.

To create properly is to produce something (object, idea, structure), that appears to most people as new or original.

Creativity, as an adaptive capacity or set of skills, has always been considered part of that more general set of mental abilities denoted by the term intelligence. The ability to find solutions to problems, big or small, in everyday life, is the function that is usually most often associated with intelligence.

It can be said that by creative activity we mean any human activity that produces something new.

The discipline of visual arts and practical skills is an excellent means for the child to express feelings, emotions and sensations, it contributes significantly to the formation of the student's personality. Art plays an important role, being considered a fundamental discipline for education. On the one hand, artistic activities stimulate the learning of other subjects, such as Communication in Romanian or Mathematics and exploring the environment, etc. On the other hand, art promotes the development of perception, motor skills and social interaction.

Students are induced to train their cognitive processes when carrying out creative actions, new work techniques are learned and successively applied in order to make the creative process efficient.

There is a need for a pedagogy of creativity, a pedagogy addressed to students and materialized in school learning that leads to an increase in the efficiency of the educational process.

In Chapter II, *Art, creativity and functional creations*, the indestructible link between art and creativity is highlighted in students at the level of fundamental acquisitions.

Art and creativity derive from student expression, are a reason for inspiration, comment, criticism. Art is motivated by creativity and must be understood differently depending on the artist, based on the preferences and techniques adopted, it is capable of instilling different emotions from subject to subject.

Often the expressiveness of art is a reason for exemplifying reality and we often see artists who propose works that symbolize what they believe and manage to externalize their feelings through a sculpture, a painting or even writing something that strikes and creates an unmistakable style. This reality can also be defined as art, because it comes from an inspiration, an idea and aims to express something new and unique, that is, different from the previous one, but to be recognized and appreciated.

The school is the decisive factor in the formation of skills, habits, competences, it bases the student's notions on a scientific basis.

At the level of fundamental acquisitions, access to two forms of communication is organized: writing and reading, through which the student will later be able to independently approach scientific, technical and artistic culture.

The school contributes significantly to the development of intellectual capacities, intelligence, creativity, to the formation of the child's personality.

Increasing the volume of knowledge contributes to the establishment of order at the level of imagination and creativity. Students begin to notice, for example, a certain sequence of events. The reproductive imagination becomes more complex, richer, operates with increasingly varied terms and circumstances. These characteristics of the reproductive imagination are evident in the products of the student's activity, in summaries, in drawings or after descriptions, in the way functional creations are made.

The little schoolboy listens and reads fairy tales and stories with great pleasure, not only because of his intellectual curiosity, but also because they stimulate his imagination, satisfy his interest in everything that exists and could exist in the world.

The young schoolchild begins to gradually move on to an activity of his own creation that includes original elements most of the time.

In the products of artistic creation, the young schoolboy respects a subject, a theme, a content unit and at least one technique specific to the product of the creative activity.

The drawings, objects modeled from plasticine, shell and clay, literary compositions, etc., are rich in content, the artistic effects stem from naivety and the sincere effort to reproduce this content through different means.

Another characteristic is the cultivation of detail. The details in the drawing, in the free composition, have an artistic, affective meaning for the student, they represent a sensory-affective emphasis.

In the creative quality of the little schoolboy, the concern for artistic expression, for the means of rendering is manifested. He looks at the problem of artistic creation with a certain curiosity.

The early school period is characterized by the development of the imagination in the field of literary creation, versification, which marks a general increase in the fields and plans on which the ability to memorize operates.

The creative imagination is also manifested in the construction of cars, toys, airplanes, gliders, model airplanes, etc. The technical-constructive activity begins to be stimulated by the development of the creative imagination, which extends to the field of technique.

During this period, the foundations of the creative spirit begin to be laid. By definition, the spirit of creation expresses an active side of the personality, an obvious fact in schoolchildren at the level of fundamental acquisitions. The formation of the creative spirit depends on the influences of the education exercised in the school.

We list creativity research methods: biographical analysis, analysis of activity products, observation method, case study, conversation method, statistical investigation, test method, etc.

The method of thematic projects is an active-participative teaching method aimed at acquiring skills that can be used in subsequent school and extracurricular activities.

The contribution of active-participatory methods:

- promotes correct lifestyles, emotional education, learning climate and inclusion;
- disseminate correct information and knowledge;
- promotes attitudes of tolerance, respect, solidarity and forms rules that must be respected by all participants in the instructive-educational activity;
- learn the value of active participation;
- trains the valorization of functional creations.

Didactic actions aim at developing and strengthening motor skills, increasing excellence by participating in competitions using the functional creations made.

Art becomes the channel through which the finished creative product is observable and shareable.

From the perspective of the basic characteristics - the intellectual conditions necessary for a creative activity, for the manifestation of creativity - we can highlight two visions (Guilford, J. P., 1967).

The first - representing the old vision valued creativity as something very rare, as a gift. It was therefore considered that the person endowed with high creative abilities would be eccentric, even abnormal.

Another perspective - the modern one considers each individual as a potential creator. However, the degree of creativity is different. However, based on the factor analysis method, three defining characteristics or notes of thinking have been established that characterize creativity: fluency, flexibility and originality of thinking.

The discipline of visual arts and practical skills occupies an important place in the system of disciplines that contribute to the preparation of students for life, for independent activity, ensures the familiarization of students with some simple elements of the activity of making functional creations as well as the formation of practical skills and competencies.

The school curriculum of the discipline aims to ensure a theoretical preparation of each work to be carried out by the students, thus ensuring the correlation between theoretical knowledge and practical applications. In relation to each field of activity (drawing, painting, modelling, textiles and paper, construction, photo-video) knowledge of the properties of the material used, its processing techniques, the elements of plastic language, as well as suggestions is considered of creations and work products.

Another particularly important characteristic of the School Program is the fact that it indicates, in addition to the realization of some useful objects, the operations (work) necessary for their execution. Thus, techniques such as: measuring, bending, folding, gluing, cutting and cutting with scissors, crumpling, twisting, origami, tangram, quilling, tailoring, sewing, brushwork, collage, imprinting, stamping, spraying, etc. are recommended. These work techniques lead students to the formation of skills and competencies necessary for the execution of numerous objects, functional creations with a utilitarian character.

Chapter III of the thesis develops Forms of organization and implementation of activities integrated in the Visual Arts and practical skills discipline.

Teaching subjects at the foundational acquisitions level involves planning and preparing an appropriate design to fit our current curriculum. By involving students in thematic projects, we give them the opportunity to explore basic scientific concepts and get them to relate to the world in an organized school setting.

The teaching of Visual arts and practical skills can lead to successful results only on the condition that the methods and forms of organization of the teaching and acquisition of knowledge, the formation of skills and the skills of the discipline are carried out in accordance with the general didactic principles. We list some relevant principles for the instructive-educational process: the principle of linking theory with practice, the principle of intuition, the principle of systematization and succession, the principle of accessibility, the principle of thorough appropriation, etc.

The basic form used in teaching visual arts and practical skills is the lesson. The lessons assigned to the arts are particularly important for the training and creative education of students, contributing to educational success.

The lesson takes place in accordance with the discipline-specific curriculum, constituting the main, organized form of the process of teaching visual arts and practical skills. Of course, the art lessons will have a certain specificity, determined, first of all, by the emphasized practical nature of this educational object.

As with the other educational subjects, the four known didactic tasks are carried out in the arts:

- 1.the communication of new knowledge;
- 2.repeating and systematizing knowledge;
- 3.the formation of skills, abilities and competences;
- 4.knowledge verification.

Thus, we communicate to the students knowledge about the materials used, how to process them, the making of any object, the rules for executing this object, etc.

In order for this knowledge, as well as the skills, skills and competences that are formed based on them, to be sustainable and well consolidated, there is a need to repeat and systematize them. This task is carried out in every lesson, because, before starting an activity, we make sure that the students understand what they have to do. Repetition of knowledge, in this case, stems from the need to ensure the conscious character of the practical activity carried out by the students. But repetition also occurs during the activity of making some object, as well as on the occasion of finishing a work, when the

knowledge that the students used during the work is repeated and systematized, in order to consolidate and their use in the following activities.

The verification and control of knowledge, skills, skills and competences is also a didactic task that can be carried out at different stages of the lesson, being closely related to the repetition and systematization of knowledge. However, the verification appears especially in the last part of the lesson when, analyzing the results obtained by the students, we also check the extent to which they have acquired the knowledge taught and, above all, applied it in their work. The control over the obtained results is therefore an important didactic task, which must be carried out in every lesson of visual arts and practical skills. Based on this control, the students are finally assessed and graded.

Since the teaching of visual arts and practical skills aims at the formation of practical skills, it follows that the fundamental didactic task that must be carried out in these lessons is the formation of skills, abilities and competencies. It can be appreciated that the realization of the other didactic tasks is, in one way or another, subordinated to this fundamental task.

Taking into account the above, we can draw the conclusion that in the course of visual arts and practical skills lessons, all didactic tasks are carried out harmoniously. The biggest weight, therefore the fundamental didactic task, which must be carried out belongs to the training of skills, abilities and competences.

The efficiency of art lessons is determined by the methodical preparation and a technical training of the teacher for primary education regarding the execution of the works carried out in each lesson.

The implementation of visual arts and practical skills lessons is unthinkable without the provision of the necessary materials, beforehand, the necessary raw material, the materials to be processed. From an educational point of view, the diversity of materials enables the teacher to broaden the students' horizons with new notions about the particularities of the materials used (size, weight, shape, color, origin) and consolidates the knowledge acquired within the other educational objects, linking them in a way natural, of practice, of life.

The learning activity makes its contribution to the preparation of students and the formation of elementary skills in handling some work tools specific to the Visual Arts discipline and practical skills. Many of the objects intended to be made can not only be executed by hand, but also with the help of tools and instruments. Hence the need to present these simple tools to the students in advance, to demonstrate how they should be

handled, to give them instructions on how they should be kept and how the students should avoid accidents while working.

For scissors with both straight or curved arms, the length of the arms is required to be between 10 and 12 centimeters for paper scissors and longer for thin cardboard works. When cutting begins, insert the scissors under the material with the sharper tip, and cut starting from the base of the arms, pressing gently, not suddenly. Cutting with the tips of the arms, we will make a squishy cut. The formation of correct skills and competences is ensured starting gradually and gradually. At the beginning, the teacher will do exercises to correctly grasp the scissors, by inserting the fingers into the rings of the arms. We will have to prevent, from the beginning, the acquisition of a wrong skill. The work continues with handling, closing and opening exercises, organizing bending exercises, cutting out figures with straight edges (different geometric figures), with curved edges (circles and ovals), with edges from combined, mixed lines (fruits, vegetables etc.).

Ordinary knives, a penknife can be used. The knife is only grasped by the handle and with the cutting edge towards the material, with the edge up. Particular attention will be paid to security techniques. Students will only receive tools during work. We don't allow them to play with them. They will be used only according to our instructions; before starting the work, there will be a short instruction, in which we will teach the students to use the sharp tools with which they cut. The material will be placed on the work surface of the bench in such a way that, even if the knife slips during work, it will not injure us. The penknife, especially, is placed carefully on the material and we start cutting only after we have made sure that its blade is placed on the material with the edge, not the edge.

The wooden ruler is used to draw the different lines, but to cut with the penknife or knife next to the ruler, it is advisable to use metal rulers or wooden rulers with a metal edge.

For painting different objects with watercolors, small round brushes made of pig hair are used. After use, wash the brush with soap and water.

The main modeling tool is the hand, and, as the material used, especially plasticine, presents the inconvenience of getting dirty, it is necessary to have a basin of water and a dark towel at hand. Protective aprons are good for protecting clothes, and benches are protected using plywood boards, agglomerated boards, small boards or tablets.

In the modeling works, some helpful tools are also necessary: the templates. They are sticks the length of a pencil, with one of the ends widened in the shape of a shovel, and the other sharpened for the hollow. When working with plasticine, we will make sure that



students who have injured fingers do not work, to avoid aggravating the injury. Pebbles, plasticine scraps are chosen carefully, to avoid pricking your fingers.

The diversity of materials used in the work in the form of different braiding activities also involves the use of various tools and instruments.

The most used tools and work tools are:

The toothpick or piece of tin, with an arrow-shaped tip, which we use to make room between the warp strips of the batting strips when making the paper mat.

The sewing needle is used for sewing the various braids made: from string when we make slippers, bridle - from raffia, rushes, corn cobs, etc. Presenting this instrument, the students must learn that it is made of a hard material, usually steel, and is polished so that it slides through the fabric, makes its way through the material. It has a well-sharpened tip, and at the opposite end of the tip, the ears, into which the thread is inserted that it pulls after it. There are different types of needles: smaller (used for artistic, fine stitches), larger (used for sewing thick materials - fabrics, dimia, bags, etc.). There are needles that, added to the machines, have a certain shape.

The tools and instruments needed for woodworking are numerous and varied. They can be grouped according to the specifics of the tools used.

A first group of tools are those necessary for measuring, tracing and checking. For this purpose, the following are used: carpentry meter, straightedge (ruler), square, marker.

For cutting, splitting and carving wood, the following are used: saws (of which the handle saw, fox tail, is also accessible to students), the knife, the ax, the planer, necessary for planing.

Drills of different shapes are used for manual drilling of wood, and chisels of different shapes, as well as wooden hammers, are used for chiselling (hollowing) wood.

To join the pieces with nails and screws for wood, the following are used: hammer, pliers, screwdriver, mandrel.

Finally, for the various finishing operations, the following are used: fillers, necessary for grouting, brushes, for sanding or painting, etc.

In the situation when visual arts and practical skills lessons take place in classrooms, it is necessary for each class to have a small kit with the instruments and tools listed previously. This kit can be a box with dividers and hangers, in which to place the various tools, or a cabinet with shelves.

It is known that students at the level of fundamental acquisitions do not learn linear drawing. Only in the following classes will they learn drawing in geometry lessons, and

technical drawing in the older classes. However, the drawing and the sketch are methodical procedures absolutely indispensable for fixing the demonstration of the work by the teacher; are necessary to help students perform the work demonstrated.

In addition to the simple works, in which the sketch is not absolutely necessary, the school curriculum also provides for a series of works in the execution of which the drawing and the sketch are a price auxiliary. Such works are: the glass, the helmet, the bowl, the clock face, the seed box.

The modeling technique is one of the most pleasant and accessible techniques for school-age students.

Origami is the art of folding colored paper into patterns of living creatures, inanimate objects or abstract decorative shapes. Origami is a creative educational technique with origins in Japan. The worship in the temples and the ceremonies that took place required that all objects be placed on paper or covered with great precision with paper if they were delicate.

Quilling is an art form that involves the use of strips of paper that are rolled, shaped and glued together to create decorative patterns. Paper is rolled, curled, twisted and otherwise manipulated to create shapes that make up designs to decorate cards, pictures, boxes, eggs and to make patterns, jewelry, mobile phones, etc. The Quilling technique begins with rolling a strip of paper into a coil and then pinching the coil into shapes that can be glued together. There are advanced techniques and paper of different sizes that are used to create 3D miniatures, abstract art, flowers and portraits among many things.

A tangram is a puzzle made up of seven flat polygons, called tans, that are put together to form shapes. The objective is to reproduce a pattern (given only an outline) generally found in a puzzle book using all seven pieces without overlapping. It is one of the most recognized dissection puzzles in the world and has been used for various purposes including entertainment, art and education.

Brushing technique develops the ability to apply the drawing on the entire surface of the work surface; strengthens the understanding of environmental phenomena; develops memory, attention, imagination, perception of the world, aesthetic taste, develops a sense of beauty, artistic taste and cultivates a creative attitude.

The general competence of making functional creations through the method of thematic projects can be achieved at the level of fundamental acquisitions through compulsory educational activities, lessons organized in different forms, and with the support of extracurricular activities organized by teachers.

"The project is a process that, within some organizations, leads to the creation of new products or services. It is intended to obtain new improved and complex results, necessary to satisfy clearly predefined objectives, it is characterized as a non-repetitive, unique, specific and innovative action, carried out under the conditions of the existence of a triple constraint - time, resources and costs" ( R. Răduț-Taciu, M.-D. Bocoș, O. Chiș, 2015, p. 287). The theme project is centered around a theme or an event that is based on the emotions that trigger the motivation to learn. For decades, learning has been analyzed mostly in cognitive terms, and emotions have been considered obstacles, almost like weaknesses. Today, neuroscientific research has made it clear that emotions play a role in cognitive functions, including attention, memory, the ability to process information, and therefore affect the delicate process of learning.

Carrying out a project involves two important dimensions that are specific depending on the particularities of the study discipline and the topic addressed. The two dimensions are:

- a) going through processes of data collection, processing, analysis, interpretation of them following investigative steps to be researched;
- b) making final products that can be different; in our case, the final products made are our own functional creations, the practical works developed by the students.

The functional creations to be created by the method of thematic projects encourage the student to invent, to discern, to choose the most fruitful model among all combinations. Creativity is the ability to break out of an order, deal with disorder and create a new order.

The method of thematic projects constitutes the element of novelty in the educational approach; it is distinguished as an integrated, interdisciplinarity, and intercultural method. It is necessary to stimulate and develop the cognitive and creative functions and processes of the student in training in order to achieve performance by making functional creations within the discipline of visual arts and practical skills.

This method significantly changes the vision of the didactic act, since from being the object of the educational actions, the student becomes the initiator of the instructive-educational act, gradually forming and consolidating his skills and practical work skills. "The project represents a temporary concern for the creation of a unique product or service, respectively a system of activities, planned and organized in such a way as to achieve a clearly defined objective, in a well-defined period of time, with the use of allocated resources" (R. Răduț-Taciu, M.-D. Bocoș, O. Chiș, 2015, p. 287).

The thematic project is centered around a theme or an event that has at its base, the emotions that trigger the motivation to learn. Regarding the most useful way to implement and develop creativity, it is worth mentioning the use of the thematic project as an important active and participatory method. This method allows thinking to react to a stimulus in various ways, develops the ability to find new uses for common objects or to build drawings starting from the presentation of an abstract shape, invents a short story starting from some given words, creates random associations, prove that two objects, two words, two images taken at random are similar or even describe hypothetical situations. Thematic projects strongly develop creative thinking.

Part II of the thesis, *The experimental approach regarding the application of thematic projects in the development of creativity* it is structured in three chapters.

Chapter IV entitled *The pre-experimental stage* presents the conceptual and methodological foundations of the research, the delimitation of the research problem, the design of the research activity, the selection of subject samples, diagnostic analysis activities and the initial evaluation of the students.

The main investigation method used in the research is the pedagogical experiment implemented within the Visual Arts and Practical Skills discipline at the level of fundamental acquisitions.

In order to test the working hypothesis, a set of pedagogical experiments were designed, organized and carried out during the 2019-2020 and 2020-2021 school years.

The actual pedagogical experiment was designed and implemented in the classes of two urban schools in Gorj County: "Voievod Litovoi" Secondary School Târgu-Jiu and "Gheorghe Tătărescu" Secondary School Târgu-Jiu.

The research problem: the reduction of school failure through the significant contribution of thematic projects to the promotion of educational success through the development of creative skills in the discipline of visual arts and practical skills of students at the level of fundamental acquisitions.

Reducing school failure of students by promoting educational success and on-time performance are priority objectives in primary education at the level of basic acquisitions.

Education and vocational training of students have as their main purpose the training of skills. By introducing thematic projects into the lesson, we want to identify the most effective educational strategies in order to develop the competence to create functional creations within the discipline of Visual Arts and practical skills at the level of

fundamental acquisitions, promoting the improvement of student performance and educational success.

We believe that the success of the learning activities and the acquisition of the skills specified in the School Curriculum depend to the greatest extent on the methods selected by the teacher in order to teach the new knowledge.

The research theme, "Functional creations through thematic projects in the discipline of Visual Arts and practical skills at the level of fundamental acquisitions" is designed as a declarative research combined with an experimental research.

The research activities were designed according to the stages of the psychopedagogical experiment.

We formulated the specific objectives of the pre-experimental stage. These are:

O1: Identification of relevant factors, weaknesses and existing strengths in the educational system that contribute to the formation and development of the competence to create functional creations at the level of fundamental acquisitions;

O2: Identifying the professional development needs of teaching staff in terms of improvement in the field of visual arts and practical skills;

O3: Elaboration of the evaluation tool specific to the stage;

O4: Application of the stage-specific assessment tool;

O5: Identifying the students' initial level of creativity, the degree of comprehension of the specific working techniques of the discipline Visual Arts and practical skills, originality, semantic abstraction and elaboration in the functional creations made.

O6: Analysis and interpretation of the results obtained in order to measure the level of development of the competence to create functional creations through the dependent variables after the introduction of the independent variable, the thematic projects;

The research variables are:

A) The independent variable: Using the method of thematic projects in the Visual Arts and practical skills discipline. The independent variable represents the experimental factor controlled and manipulated by the researcher, respectively the changes that it introduced to study the effects it produces. It is the variable that causes changes in other variables, it is introduced only in the experimental classes and its effects are systematically followed, and in the control classes the educational process takes place under usual conditions.

B) The dependent variables:

V.D.1 – The degree of comprehension of the specific work techniques of the Visual Arts discipline and practical skills at the level of fundamental acquisitions;

V.D.2- Originality;

V.D.3- Semantic abstraction;

V.D.4- Elaboration from a functional perspective.

Dependent variables are the variables changed by the action of the independent variable. These are measured variables and generate results.

The table below shows the synthetic presentation of the research methodology.

<b>The research question</b>	<b>Research method</b>	<b>Tool used</b>
What are the existing didactic practices in the educational system, which define the formation and development of the realization of functional creations using various elementary materials and techniques at the level of the fundamental acquisitions within the Visual Arts and practical skills discipline?	Analysis of specific documents: School curriculum, Framework plan, educational policy document "Remarks for designing, updating and evaluating the National Curriculum. National Curriculum Reference Framework". Investigation of teaching staff who teach in pre-university education, at the level of fundamental acquisitions.	Questionnaire (Appendix 1)
Which of the existing didactic practices should be promoted at the level of the educational system in order to positively influence the realization of functional creations using various elementary materials and techniques?	Interview teachers participating and involved in the experiment. Interview guide identifying weak points and strong points regarding the formation of the competence to create functional creations within the Visual Arts discipline and practical skills at the level of fundamental acquisitions.	Interview guide (Appendix 2)
Which of the existing didactic practices should be changed or improved to positively influence the realization of functional creations using various elementary materials and techniques?	Interview guide for identifying teaching practices that need to be improved as well as identifying factors that influence school success. Identifying the measures to be implemented to achieve performance.	Interview guide (Appendix 3)

**Table no. 1. The synthetic presentation of the research methodology**

Main methods of data collection in the diagnostic study: self-observation method and observation method, questionnaire-based investigation, individual interviews, test method, document analysis.

We have analyzed the following official documents:

- ❖ School curriculum for visual arts and practical skills Preparatory class, first class and second class which is approved by Ministerial Order no. 3418/19.03.2013;
- ❖ The education framework plan approved by Order of the Ministry of National Education no. 3371/12.03.2013 which is a regulatory curricular document, which promotes educational policy options at the national level and which configures the educational path of a student during a stage of schooling.
- ❖ Order of the Minister of Education and Research no. 5765/15.10.2020 on the approval of the educational policy document "Remarks for the design, updating and evaluation of the National Curriculum. National Curriculum Reference Framework";

The analysis of the products of the activity/functional creations was frequently used during the research in the ascertainment stage to analyze the students' activity materialized in the creative products made by them in the figural section of the evaluation tool used.

Closely following and monitoring how the subject under investigation, the student, goes through the steps leading up to the development of a particular product, provides valuable information about his skills, his attitude towards the discipline of Visual Arts and Practical Skills and towards science in general.

The components of students' portfolios, respectively their own functional creations, represent the results of individual work.

The analysis of subjects' portfolios creates the possibility of anticipating concrete ways of training and shaping the personality of learning subjects, as well as ways of intervention in order to produce desired behavioral manifestations, achieve performance and avoid undesirable behavioral manifestations such as school dropout.

The selection of the sample of participating teaching staff was made following discussions with the responding teaching staff and the management of the educational units. It was decided that the schools designated as pilot schools should be from the urban environment, these being "Voievod Litovoi" Secondary School, Târgu-Jiu and "Gheorghe Tătărăscu" Secondary School, Târgu-Jiu.

In the selection of the sample of students participating in the experiment, we used a practical sampling model, i.e. the use of class samples, which involves working with school classes considered pre-existing samples for the research, constituted in advance according to the age criterion and based on random factors established by the management pre-university educational institutions.

This type of choice allows the statistical comparison of the research results as well as the generalization of the conclusions of the investigation. The sample is representative of the general group of students of which it is a part because the same characteristics are found in most schools in the country.

With the help of 12 primary education teachers and 2 support teachers, we selected 12 classes of students: 6 classes from "Voievod Litovoi" Secondary School and 6 classes from "Gheorghe Tătărăscu" Secondary School, being involved in the research 262 students. The students are normally developed from a physical point of view and show physical and intellectual traits characteristic of their age. It is a heterogeneous sample of students because they do not show big differences in terms of the level of development of intellectual and creative capacities.

The sample of students participating in the experiment consists of: the experimental sample and the control sample.

The association of the classes in the samples was made so that the number of students of the experimental sample was the same as the number of students of the control sample at the level of fundamental acquisitions.

In the experiment, we operated with a sample consisting of four preparatory classes, four first classes, respectively four second classes, from two secondary schools, at each level, two classes were experimental and two classes were control.

In order to establish the initial level of development of the students' creative capacities in order to create functional creations, the verbal and figurative initial evaluation test was administered. The verbal form of the test consisted in measuring the students' abilities to find relationships between different pairs of verbal elements of the work techniques specific to the discipline Visual Arts and practical skills and the tools used in the realization of practical works. The figurative form of the test consisted of the activity Construction of a painting. By means of the verbal form of the test, the presence and level of creative performance was detected and measured with the support of the variable Degree of comprehension of the work techniques specific to the discipline Visual Arts and practical skills at the level of fundamental acquisitions, by means of the figurative form of the test, the presence and level was detected and measured creative performance through three variables: Originality, Semantic Abstraction, Elaboration from a functional perspective.



In our research activity, the scores as well as the average indices of the level of development of creative capacities detected by means of the evaluation tool were calculated and recorded.

The same initial assessment test (identical test) was applied to the students of the experimental and control samples that constitute the samples of subjects involved in the research. The test was applied individually to each class.

Considering the fact that in the preparatory class the School Curriculum of the subject Communication in the Romanian Language provides for learning and writing only capital letters, the test items were written in capital letters to enable the students to read and understand the formulated requirement.

The evaluation, measurement and interpretation of the results was carried out on the basis of the score assigned to each item which was assigned to an observational indicator to allow us to calculate the average indices of the level of development of creative capacities, as well as the individual and global accuracy percentages.

To establish whether or not the observed differences are statistically significant, if the independent variable determined the improvement of the results, sets of rules known as significance tests are used.

We used simple ANOVA because it allows us to compare simultaneously while keeping the alpha level at the desired value, a maximum of 0.05. The total dispersion is divided into two components: the dispersion between groups, between classes of students (intergroup) and the dispersion within groups, within the class of students (intragroup).

If the intergroup dispersion is much greater than the intragroup dispersion, there are significant differences between the compared classes, so there is an influence of the independent variable on the dependent variables.

Data processing is carried out with the SPSS program.

In conclusion, after the initial testing, the analysis of the data on each variable showed that the differences are not statistically significant (the differences between the experimental classes and the control classes are not statistically significant - the value of the general indicator F is too small and the threshold of significance is greater than the 0.05 threshold at which differences would be considered statistically significant). We can confirm that, in terms of the level of development of the competence to make functional creations, there are no significant differences in the classes at the level of fundamental acquisitions included in the sample.

Chapter V of the thesis, Experimental Stage, provides information on the specific objectives of the stage, on the sample of content represented by the thematic projects implemented and on the formative assessment.

The present study aims to achieve the following objectives specific to the experimental stage:

O1: Elaboration of the evaluation tool specific to the stage;

O2: Application of the stage-specific evaluation tool;

O3: Selection of a sample of relevant and representative scientific content for the Visual Arts and Practical Skills discipline and for the topic chosen for research;

O4: Implementation of the nine thematic projects within the established deadlines;

O5: The formative evaluation of the students participating in the experiment in the middle of the experimental stage;

O6: Analysis and interpretation of the results obtained in order to measure the level of development of the competence to create functional creations through the dependent variables after the introduction of the independent variable, the thematic projects;

O7: Development by the researcher of a Methodical Guide "A wonderful world" for the Visual Arts and practical skills discipline;

O8: The implementation by the researcher, trainer and primary education teacher Pîrvulescu Lidia-Emilia, of the course with a duration of 24 hours within the teaching staff training program organized by Casa Corpului Didactic Gorj with the name "Design and implementation of integrated activities within visual arts and practical skills discipline".

In the classes that form the experimental sample, the independent variable was introduced in the course of the instructional-educational activity in order to be able to measure its influence on the level of creativity of the students in the realization of functional creations through the changes made at the level of the four dependent variables: the degree of comprehension of work techniques specific to the Visual Arts discipline and practical skills at the level of fundamental acquisitions, originality, semantic abstraction, elaboration of practical works/functional creations.

During the 2019-2020 school year, each primary education teacher implemented 9 thematic projects in the experimental class of which he is the leader.








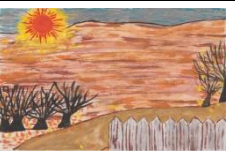




In the first part of the experiment, the first four thematic projects were implemented.



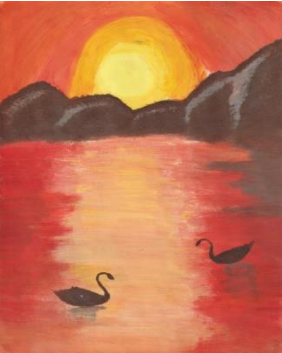
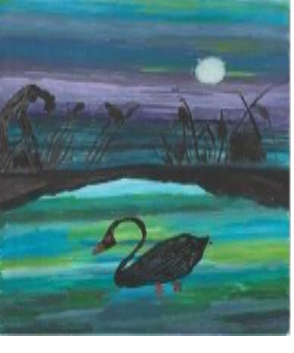





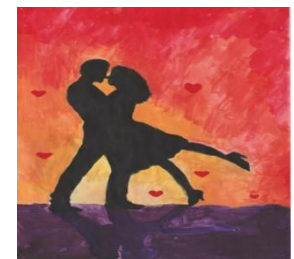


Nr.Crt.	THEMATIC PROJECT	PERIOD
<b>1</b>	<b>Autumn, fruits and vegetables</b>	October 2019

2	<b>We enjoy Christmas</b>	December 2019
3	<b>Mihai Eminescu - The light of Romanian poetry</b>	January 2020
4	<b>January 24 – Union of Romanian Principalities</b>	January 2020
5	<b>By Dragobete, love Romanian</b>	February 2020
6	<b>Mother, the dearest being</b>	March 2020
7	<b>Romanian Easter traditions and customs</b>	April 2020
8	<b>Spring and its colors</b>	May 2020
9	<b>The smile, the game, the gaiety... color my childhood</b>	June 2020













**Table no. 2. Sample Content – Topic Projects Theme**










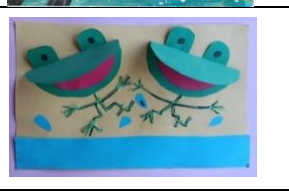


Album with the representative practical works for the thematic projects implemented  
- functional creations made by the students of the experimental classes:

The hedgehog -Cutting, incision, assembly		Peacock - Cutting, incision, assembly	
Flower -Cutting, assembly		The vegetable doll -Cutting, assembly	
Vegetable basket -Collage, contour cutting, gluing, pressing		The basket of autumn -Hatching	
Autumn colors - Tamponing		Trees without Leaves - Pensulation	
Santa and the trees -Modulated line, brushing, dabbing		Fir trees and their joy -Pensulation, dab	
Snowman -Hatching, modulated line		The reindeer and the fir tree - Cutting, gluing, pressing	

<p>Snowman - Modeling</p>		<p>Bunch of 3 roses -Modeling, braiding in threes</p>	
<p>The swans and the moon - Typography</p>		<p>Black Swan - Pensulation</p>	
<p>Flowers - Origami, cutting according to contour, cutting, bending, twisting, gluing</p>		<p>Swan - Tangram</p>	
<p>Students celebrating January 24 - Pensulation</p>		<p>My country on January 24 - Typography</p>	
<p>Lovers - Imprinting</p>		<p>Cătălin and Cătălina - Typography</p>	
<p>The bee in love -Pensulation, modulated line</p>		<p>Bouquet of hearts -Pensulation, modulated line</p>	



<p>Greeting card with flowers</p> <p>-Bending, punching, gluing, pressing</p>		<p>Basket for mom</p> <p>- Origami, button sewing, contour cutting, gluing, knot</p>	
<p>Flower for my mother</p> <p>- Crumpling, gluing, pressing</p>		<p>Flowers for mom -</p> <p>Modulated line, contour cutting, gluing, pressing, Quilling</p>	
<p>Butterflies</p> <p>- Pensulation, calligraphy</p>		<p>Tulip</p> <p>- Thread cutting, gluing, pressing</p>	
<p>My mother is a ballerina</p> <p>-Cutting according to contour, perforation</p>		<p>My mother</p> <p>-Folding, contour cutting, repetition, knot</p>	
<p>Martisoare-Cutting according to contour, gluing, pressing, Quilling, Origami</p>		<p>Martişor with hearts</p> <p>- Pensulation</p>	
<p>Painting with flowers for mom</p> <p>- Quilling, gluing</p>		<p>Flower vase for mom</p> <p>-Quilling, cutting, gluing</p>	

<p>Resurrection of Jesus</p> <p>- Pensulation, modulated line</p>		<p>Easter ornament</p> <p>- Modulated line</p>	
<p>The Holy Trinity</p> <p>- Hatching, modulated line, calligraphy</p>		<p>Virgin Mary and Jesus Christ</p> <p>- Pensulation, calligraphy</p>	
<p>Spring flowers</p> <p>- Crumple</p>		<p>Spring landscape</p> <p>- Crumple</p>	
<p>Apricot twig</p> <p>- Modeling</p>		<p>The blossoming twig</p> <p>- Typography</p>	
<p>The advertising Poster</p> <p>- Modulated line, calligraphy</p>		<p>Happy frogs</p> <p>- Collage</p>	
<p>Ships and planes</p> <p>- Spraying, pattern</p>		<p>Happy scooters</p> <p>- Spraying, template</p>	

**Table no. 3. Functional creations made by students of experimental classes**

The level of development of the competence to make functional creations was assessed in the middle of the experimental period after the first four thematic projects were implemented.

The same assessment tool was used in each class of the same level.

Period of formative assessment of students participating in the experiment: February 01-05, 2020.

In the table below, I have coded each dependent variable as follows:

I - The level of understanding of the work techniques specific to the Visual Arts discipline and practical skills at the level of fundamental acquisitions;

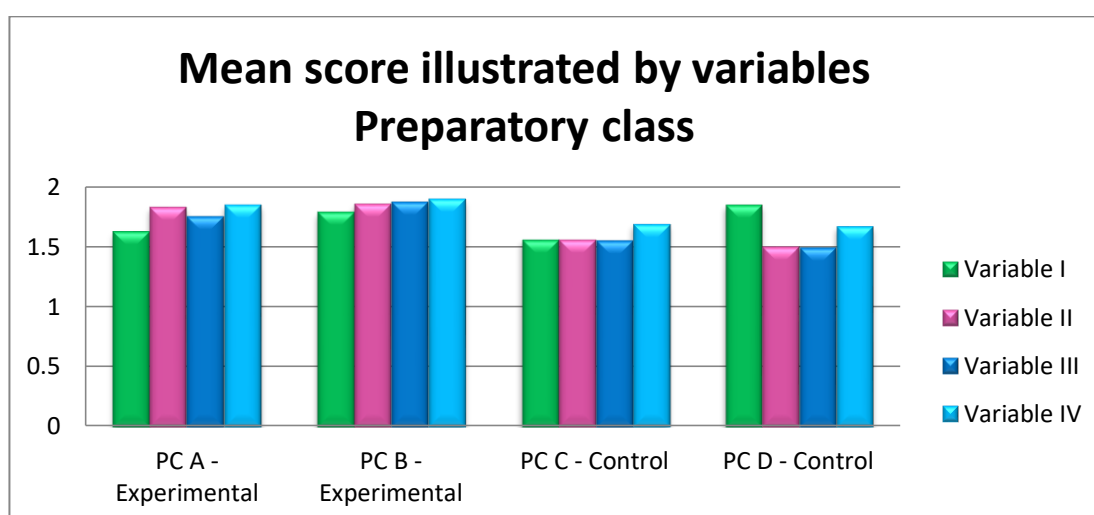
II - Originality;

III- Semantic abstraction;

IV- Elaboration from a functional perspective.

Class	Sample type	Variable I	Variable II	Variable III	Variable IV
PC A	Experimental	1.63	1.83	1.76	1.85
PC B	Experimental	1.79	1.86	1.88	1.90
PC C	Control	1.56	1.56	1.56	1.69
PC D	Control	1.85	1.50	1.50	1.67

**Table no. 4. Average score on the variable - formative assessment in the preparatory class**



**Figure no.1. Graphical representation of the average values obtained on each variable - formative assessment in preparatory classes**

For the simultaneous comparison of the four dependent variables, as a statistical technique, we used the analysis of variance (ANOVA).

The results of statistical processing are recorded.

ANOVA						
		Sum of squares (of deviations)	df degrees of freedom	Mean squared	F – the ratio of the squared means (intergroup and intragroup dispersion)	Threshold of significance
Variable I	Dispersion Intergroup	1,047	3	0,349	0,941	0,425
	Dispersion Intragroup	29,299	79	0,371		
	The total source of dispersion	30,346	82			
Variable II	Dispersion Intergroup	2,102	3	0,701	7,570	0,000
	Dispersion Intragroup	7,313	79	0,093		
	The total source of dispersion	9,416	82			
Variable III	Dispersion Intergroup	1,964	3	0,655	8,881	0,000
	Dispersion Intragroup	5,825	79	0,074		
	The total source of dispersion	7,789	82			
Variable IV	Dispersion Intergroup	0,828	3	0,276	3,778	0,014
	Dispersion Intragroup	5,769	79	0,073		
	The total source of dispersion	6,596	82			

**Table no. 5. Analysis of the relationship between the independent variable and each dependent variable, separately – formative assessment in the preparatory class**

Analyzing the obtained data it is observed:

For variable I, we have a very low value of the indicator  $F(3, 79) = 0.941$  at  $p=0.425$  (under conditions where the maximum accepted threshold is 0.05). Thus, at this experimental moment, there is no major influence of the thematic projects on the degree of comprehension of the work techniques specific to the discipline Visual Arts and practical skills at the level of the preparatory class.

For variables II, III and IV we have an increased value of the F indicator (the maximum accepted value being  $p < 0.05$ ) for each dependent variable separately as follows:

Variable II  $F(3, 79) = 7.570$ , at  $p=0.000$

Variable III  $F(3, 79) = 8.881$ , at  $p=0.000$



Variable IV  $F(3, 79) = 3.778$ , at  $p=0.014$

Thus, at this experimental moment, a major influence of thematic projects on originality, semantic abstraction and elaboration of functional creations is identified.

From a qualitative point of view, we can say that no major differences can be identified between the four classes of participants.

Analyzing and interpreting the results obtained in the middle of the formative stage, in the preparatory class, we formulate the following conclusions: an increase in the scores obtained by the students of the preparatory class is observed for each measured variable. However, from a statistical point of view, these differences are not significant enough in formative testing.

Analyzing the data obtained regarding formative assessment in first grade, it is observed:

For variable I we have a very low value of the indicator  $F(3, 75) = 0.347$  at  $p=0.791$  (under conditions where the maximum accepted threshold is 0.05). Thus, at this experimental moment, there is no major influence of the thematic projects on the degree of comprehension of the work techniques specific to the discipline Visual Arts and practical skills at the first grade level.

For variables II, III and IV we have an increased value of the F indicator (the maximum accepted value being  $p < 0.05$ ) for each dependent variable separately as follows:

Variable II  $F(3, 75) = 10.085$ , at  $p=0.000$

Variable III  $F(3, 75) = 34.290$ , at  $p=0.000$

Variable IV  $F(3, 75) = 4.937$ , at  $p=0.003$

Thus, at this experimental moment, a major influence of thematic projects on originality, semantic abstraction and elaboration of functional creations is identified.

From a qualitative point of view, we can say that no major differences can be identified between the four classes of participants.

In conclusion, from the analysis of the data above, on each dependent variable/class samples, an increase in the scores obtained by first grade students is observed for each measured variable. However, from a statistical point of view, these differences are not significant enough. From the data analysis, it can be observed that, only for variable III (semantic abstraction), the intergroup dispersion is greater than the intragroup dispersion. Thus, following the analysis of the data obtained during the formative testing, the working hypothesis for variable III is confirmed for the first grade students included in the sample.

Analyzing the data obtained regarding the formative assessment in the 2nd grade, it can be observed:

For variable I, we have a very low value of the indicator  $F(3, 96) = 0.404$  at  $p=0.751$  (under conditions where the maximum accepted threshold is 0.05). Thus, at this experimental moment, no major influence of the thematic projects on the degree of comprehension of the work techniques specific to the Visual Arts and practical skills discipline at the level of the 2nd grade can be identified.

For variables II, III and IV we have an increased value of the F indicator (the maximum accepted value being  $p < 0.05$ ) for each dependent variable separately as follows:

Variable II  $F(3, 96) = 7.904$ , at  $p=0.000$

Variable III  $F(3, 96) = 31.231$ , at  $p=0.000$

Variable IV  $F(3, 96) = 8.057$ , at  $p=0.000$

Thus, at this experimental moment, a major influence of thematic projects on originality, semantic abstraction and elaboration of functional creations is identified.

From a qualitative point of view, we can say that no major differences can be identified between the four classes of participants.

In conclusion, from the analysis of the data above, on each dependent variable/class samples, an increase in the scores obtained by second grade students is observed for each measured variable. However, from a statistical point of view, these differences are not significant enough in formative testing.

Chapter VI, The post-experimental and retest stage, presents: the post-experimental evaluation, at the end of the test and the retest-type evaluation or remote evaluation of the students included in the sample in order to test the proposed working hypothesis.

The present study aims to achieve the following objectives specific to the post-experimental and retest stages:

O1: Elaboration of the assessment tool specific to each stage;

O2: Application of the evaluation tool specific to each stage;

O3: Evaluation of the students participating in the experiment at the end of the experimental stage and in the retesting stage;

O4: Analysis and interpretation of the results obtained in order to measure the level of development of the competence to create functional creations through the dependent variables at the end of the experimental stage and in the retest stage;

Following the implementation of the experimental intervention, the post-test evaluation was carried out for the classes included in the sample. If the differences between the averages of the results obtained by the students of the experimental classes and those of the students of the control classes are significant, then the working hypothesis is confirmed.

In this experimental moment, a major influence of thematic projects on the degree of comprehension of the specific working techniques of the Visual Arts and practical skills discipline, originality, semantic abstraction and the elaboration of functional creations at the level of the preparatory class is identified.

From a qualitative point of view, we can say that major differences can be identified between the four classes of participants from the preparatory class.

From the analysis of the obtained data, for each dependent variable/class samples, an increase in the scores obtained by the students of the preparatory class is observed for each measured variable. Statistically, these differences are strongly statistically significant for the dependent variables. From the data analysis, it can be observed that, for all four variables, the intergroup dispersion is greater than the intragroup dispersion, thus, following the analysis of the data obtained at the posttest evaluation, the working hypothesis is confirmed for all the dependent variables for the students of the preparatory classes included in the sample . The working hypothesis is also confirmed in the first and second classes.

In the distance verification stage, the post-test evaluation was carried out for all the classes included in the experimental and control sample. This evaluation took place in October 2020, 4 months after the training phase was completed. Meanwhile, the students complied with the requirements of the School Program.

The classes participating in the remote verification stage are the same classes participating in the previous stages.

At this moment of retesting, a major influence of the thematic projects is identified on the degree of comprehension of the work techniques specific to the Visual Arts and practical skills discipline, originality, semantic abstraction and the elaboration of functional creations at the level of former preparatory classes.

From a qualitative point of view, we can say that major differences are identified between the experimental and control classes.

In conclusion, from the analysis of the data on each dependent variable/class samples, an increase in the scores obtained by the students of the experimental classes on

each measured variable is observed. Statistically, these differences are highly statistically significant for all dependent variables. From the data analysis, it can be observed that, for all four variables, the intergroup dispersion is greater than the intragroup dispersion, thus, following the analysis of the data obtained at the retest stage, the working hypothesis is confirmed for all the dependent variables in the students of the experimental classes. Compared to the results obtained at the post-test assessment, the differences are not significant between the two test moments.

The research provides a clear picture of the contribution made by thematic projects promoting educational success. The method of thematic projects contributes significantly to the reduction of school failure and the promotion of school performance by developing the competence of making functional creations at the level of fundamental acquisitions within the discipline of Visual Arts and Practical Skills.

Thematic projects significantly contribute to the realization of functional creations of students from the classes of the fundamental acquisition level.

In my opinion, stimulating students through thematic projects is a solution for training and developing skills, aptitudes, attitudes and practical skills. The doctoral thesis contains useful information for teachers interested in implementing thematic projects in the educational approach in order to achieve successful results. Dissemination of the Doctoral Thesis and the content sample will be carried out during the meetings organized on the occasion of the Pedagogical Circles of teachers for primary education at the county level in order to promote the beneficial effect of the thematic projects within the educational act.