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## ART EDUCATION FACING THE CHALLENGES OF POSTMODERN HERITAGE: the importance of pupil's holistic visual art development

### SUMMARY

The last two decades with TV and video at every home and the increasing use of the computer meant a revolution in the world of visual media. Among its consequences we can mention a specific experience of space representation which every pupil »carries with him/herself« to the class and is based on facts as the increasing speed of »passing« images, mechanical simplicity and wide possibilities in the resolution of different technical problems. It directly and indirectly influences not only art education but also other school subjects which deal with visual representation like mathematics, geometry, geography etc.

After an introduction with some ideas of the ancient and renaissance thinking about art education and some crucial elements in the development of »visuality« in the teaching-learning context as the advent of print, the paper presents a brief sketch of the different »philosophies« and ideological backgrounds standing after art education (or its familiar subjects).

With the concrete example of how the subject developed in the context of Slovenian school programs, from its definition as encyclopaedic knowledge to self-expression and new critical perspectives regarding the complexity of »visuality« deeply integrated in nowadays everyday life and the presentation of a research project about efficient teaching and learning in the visual art education process, we

reach general applicable conclusions in order to understand the actual situation and expectations from art education in primary and secondary school curriculums. Teaching and learning should be both a creative and constructive way of mental and motor activities. The teacher is supposed to provide his pupils a holistic – emotional, psychomotor and cognitive – visual development. The organisation of lessons should enable pupils to learn about visual arts and other concepts through their own activities when experiencing objects and phenomena in nature and their environment, which would also provide them with potential for the verbal definition of such phenomena while they spontaneously produce their own creative visual art. This leads pupils to satisfaction, new discoveries, depiction of their own feelings and wishes, and upgrade of their experience.

KEY WORDS: art education, art education programs, perception of space, senses, visual media, problem solving visual art teaching, pupil's holistic visual art development – affective, psychomotor, cognitive; cognitive field categories – knowledge, evaluation, verbal description of visual art concepts, visual expression.

## **INTRODUCTION : Art Education in the age of electronics**

As the age of electronic images began, the proliferation of new technologies affected almost all aspects of our lives and meant a revolution in the world of visual media. As it is widely known, it is referred to as pictorial turn age, which means awareness that we live in a world of images, in comparison with the linguistic turn, which prevailed in the seventies of twentieth century. This is the context of an inevitable number of very interesting inquiries which become highly significant when applied to the field of education. Deserving to be noticed are especially those visual media pupils are daily in contact with, like television or video, their colourful, fast moving sequences of images and of course computers with the wide range of possible uses and experiences: scanning and combining images, experimenting with tools offered by different programs, the possibility of multiple printing and, as a matter of fact, the divergency between printed and »screen« image. These changes do not only mean increasing speed of »passing« images, mechanical simplicity and wide possibilities in the resolution of different technical processes but first of all a specific experience of space perception and

representation which every student »carries with him/herself« to the class and is obviously essential to art education. Needless to stress on the direct and indirect influences and connections between the development of visualization not only in the case of art, but of other school subjects which deal with visual representation, in the context of new spacial experiences for students.

On the other side, some inquiries become actual when considering the meaning of »media revolution« changes: which elements of the process of learning will in the future improve the development of hand skills needed not only in painting, drawing and/or modelling but also in writing. It is possible to suppose that the ways of learning will change, if it is true that writing as well as drawing is an instrument to express - way of sketching thoughts. Needless to point out the importance of this supposition when talking about the development of the capacity to image space relations, especially when imagination is no longer needed to understand space not only when drawing and painting but also when speaking about geometry, geography, biology, physics or chemistry. On the other side, »a developed visuality« and all the contents this concept involves and supposes is required in almost all activities in contemporary life and school must offer a synthesized image and operative experiences. Another interesting question in this field is related to the »pedagogical« consequences of the try-error method offered by the computer.

These questions open another set of inquiries related to the expected and achieved goals by school subjects in terms of providing students with the most appropriate tools to face the changing everyday challenges in contemporary life.

A glance through history always offers interesting examples to compare. As a matter of fact, it is possible to present some crucial elements in the development of »visuality« in the teaching-learning context and in particular, the school subject art education through its (historical and ideological) definition and the goals it was/is expected to achieve. These elements not only tell us much about the position of art and art education in our societies but also reflect our priorities, the idea we have of ourselves and what we plan for the future.

After an introduction with some ideas of the Ancient and Renaissance thinking about art education, we will try to present a brief sketch of how art education (or its familiar subjects) developed in the context of Slovenian school programs. This concrete example will lead us to general applicable conclusions in order to understand the actual situation and expectations from art education in primary and secondary school curriculums.

### **A GLANCE AT HISTORY: from the ancients to the classics**

When trying to analyze the position and the meaning of art education in school programs it is important to state that it depends on many factors, among them it is important to mention the definition of art and artistic activities in a certain concrete space and time. Another interesting point to analyze is based on the relations between a certain activity («an art» or «a science») and the school subject that was eventually set up from it. These questions would lead to a very wide and interesting discussion which actually exceeds the object of this paper. Nevertheless, we will try to point out some interesting facts that will get us into the problem and to explore ideas and beliefs about the subject that we are dealing with.

In Renaissance thinking, painting and writing were arts and art was an intellectual virtue established by practice. Everyone agreed, says Baxandall, that only an informed beholder could draw real satisfaction from paintings, as indeed from literature, but »informed« in what sense? This is an ambiguity Lenardo Bruni in his *De interpretatione recta* was prompt to explain with a helpful distinction, between understanding an art and having executive ability in it. A man can read Aristotle intelligently without having the specialized verbal skill to make a good translation of him; similarly Bruni asserted, one could appreciate painting or music without being oneself a good painter or singer. The question that offers itself is about what the training of this informed but non-executive beholder might consist in and particularly whether a person of humanist culture should have any practical experience of, as opposed to real accomplishment, in drawing or painting. Probably this question was not often asked, but in any case there was an answer in Aristotle: Children may similarly be taught drawing – not to prevent them from

making mistakes in their own purchases of objects of art, not in order that they may not be imposed on when they are buying or selling them, but perhaps rather because it makes them judges of the beauty of the human form. Always to be running after the strictly useful is not becoming to free and exalted souls.<sup>1</sup>

In 1404, Pier Paolo Vergerio expanded and rather coarsened this in the most influential of all the humanist treatises on education, *De ingenuis moribus*: »There were four things the Greeks used to teach their boys: letters, wrestling, music and drawing (designativa), which some call portrayal (protractiva) ... Nowadays drawing does not in practice pass as a liberal study except so far as it relates to writing of characters – writing being the same thing as portraying and drawing - for it has otherwise remained in practice the province of painters. But as Aristotle says, among the Greeks activity of this kind was not only advantageous but also highly respected. When buying vases, paintings, and statues, things in which the Greeks took much pleasure, it was an aid against being cheated over the price; and it also contributed much to comprehending the beauty and grace of objects, both natural and artificial. This are things it is proper for men of distinction to be able to discuss with each other and appreciate (Baxandall, 1971, 125).

Baxandall says that this state expresses only a prescription and that there is no reason to think that humanist education generally included painting lessons in any important way. The point to be made is simply that there was in principle some licence for humanists who might wish to practice drawing or even to have it taught in school. And to a humanist an art was by definition something taught through precepts, that could be in fact gathered in books. Probably the most interesting example in the field is Alberti's treatise *De pictura*, which the author dedicated to Gianfrancesco Gonzaga, who was not a humanist but the patron of one of the most progressive and celebrated early humanist schools, the Casa Giocosa.

What is particularly interesting is the transposition of concepts originally used in the field of rethorics. For example the term *compositio*, a technical concept every schoolboy in a humanist school had been taught to apply to language, which was

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<sup>1</sup> ARISTOTLE, Politics 1338 a-b, quoted in: BAXANDALL, M. (1971), 124.

in fact a very precise metaphor transferring to painting a model of organization derived from rhetoric itself. »Compositio is that method of painting which composes the parts into the work of art ... the parts of the historia are bodies, the parts of the body are members, the parts of the member are plane surfaces« (Baxandall, 1971, 130). This kind of metaphors as we will see later, had important implications which we could track even in Komensky's didactics and express a kind of »common roots thinking methodology« applied to different subjects.

Another interesting and revolutionary event to analyze in its various aspects, particularly those related to the problems of »visuality«, visualization of space, the definition of nature and history and the representation of space for different applications especially those related to the world of school is in the 15th century, the invention of print. In the field of art, we can mention the reproduction of art works in books and other printed material and print was surely a very important factor which promoted at the same time the development of writing. In fact, it was a time which many authors define as a turn from an oral to a visual reading culture: the perception of the written page space, the relationship between visualization and memory, the introduction of orthographic signs, the standardization of typography, only to mention a few elements which collaborated in the radical change of mental habits. These also meant a revolution in didactics if we remember that for example, Galeno's, Ptolomeo's and Vitruvio's texts were for the first time »standardly« illustrated, that it was for the first time possible to print identical images, maps for geography, diagrams, cards for different subjects like chemistry or biology and in the end to print – and popularize - illustrated books for children. An important question opens at this point: if it is possible to draw a parallel development between the links among written (printed) and spoken words and the possibility to visualize space relations and the increasing accuracy in their representation through twodimensional models – drawings. Whatever should be our answer to this question, we can anyway conclude that print and its consequences meant a radical transformation in the conditions of intellectual life at the end of the 15th century and that these consequences, which were crucial for the development of the different sciences that are involved in education at all levels, are still actual.

About the necessity of a »drawing education« in school spoke even the »classics« in Pedagogy as J. A. Komensky (1592-1670), whose work and writings are fundamental to understand the development of the concept of public school, as we know it today. In his »Didactica magna« (1657) he tried to demonstrate that it is only possible to understand a representational content by observation and that the subject of educational process should always be as clear as possible. It is interesting that he insisted school should train the eyes for the reception of impressions from the material world and the hands to be able to skillfully represent the comprehended facts. These demands were for a long time the core of the goals within drawing at school.

A parallel between words and things or objects is the nucleus of Komensky's didactics. Children should not learn new words unless they know the thing or concept to which the word is related. The thing is the core, the verbal word is the shell (Schmidt, 1995, 16). It is obvious that many characteristics of Renaissance thinking remained important in the way Komensky defined the process of teaching and learning. Among other demands of the organization of the instruction process, he stated that, for pupils to retain knowledge in an easy and effective way it is necessary to attract and captivate their senses. Knowledge is always based on a perception of the senses. That is why he recommended the use of books with pictures to teach small children the names and characteristics of things (Komensky, 1995, 172).

Pupils should not only listen, but also see what we want them to know. That is why he also insisted that the teacher should use pictures, reliefs and others »visual« didactical resources in class. These elements are not only helpful but also encourage imagination and memory. As a matter of fact, even the ancient teachers used to recommend that the contents of the studied books should be presented in the classroom with drawings, paintings, sculptures and other eventual visual resources (Komensky, 1995, 99-100, 118). Pupils should copy good models and train precision and the proper order in the execution of things, from the parts to the whole, from the general to the particular.

In the second step of his educational model,<sup>2</sup> popular or primary school, he included drawing as a school subject. The goals of primary school are to exercise sensibility, sensitivity, imagination, memory and the training of »the working organs«, the hands (Komensky, 1995, 167).

J.J. Rousseau (1712-1778) in his »Emile ou de l'education« (1762) also recommended drawing as a mean to develop the abilities of observation and expression, always on the basis of a direct contact with nature. He was convinced it was nature that was the best teacher and he was opposed to copying patterns and other kinds of designs that were themselves just copies.

In many places in his writings, Rousseau stressed that the senses are the first learning sources for a child. Especially important are those sensations which allow us to assess, value, compare, see and touch, understand space and spacial dimensions. Comparisons allow new, even more precise evaluations of mere distance, weight, etc. (Rousseau, 1995, 57).

He said that it is usually difficult to differentiate judgements of the reason and the senses, that is why we need a lot of time and efforts to learn to see how things actually are. Movement is also important to get a notion of space. These experiences are important to get familiar with forms and shapes and to be able to draw them, to get a reliable sight and skillful hands. That is why there is no effect in copying copies or imitating. Nature and real actual objects must be the teachers, not mere copies on paper. Even drawing by memory is not acceptable, until the pupil, with repeated observation does not record the exact shapes of things and does get the sense of proportion and natural beauty. It is interesting that Rosseau was aware that the protagonist of his book, his apprentice Emil, should not become a painter and should neither know how to achieve special effects in a picture nor have good taste. Nevertheless he would know much about proportions, drawing perspectives, evaluating distances, shapes, colours, sizes etc. My goal, said Rousseau, is not for Emil to know how to copy things but for him to come to

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<sup>2</sup> Komensky presented an educational model based on four steps: the first one being »mother's school; the second, popular or primary school; the third, school of latin or high school and the fourth, academy and travelling.

know them (Rousseau, 1995, 136). Rousseau linked observation, drawing and geometry in the acquaintance of material things. He recommended: »Draw points, lines, combine them, juxtapose them, investigate their relations and you will find all the elements of elementary geometry from observation, without the need for other proofs and definitions« (Rousseau, 1995, 137). We could in fact understand these words as an introduction to experience learning.

It is also interesting that in the chapter where Rousseau discussed the vocation and professional election of Emil, he stated that taking into account all factors, he would be pleased to see him choosing f.e. carpentry, because among other things, it demanded specific skills and art sense. In spite of the fact that function is very important in these activities, elegance and taste are not excluded (Rousseau, 1995, 192).

The first important reformator of art education was J. H. Pestalozzi (1745-1827) who thought that drawing was even more important than writing and emphasized on the meaning of drawing by direct observation. The foundation of instruction he finds in *Anschauung*, which has been inadequately rendered in English by "sense-impression" or "observation", and is perhaps better expressed by "intuition". The object lesson is the core of the whole system, and exercises are based more on the study of objects than of words (Schwickerath, 2002). He recommended that the true size, length, width and height of things, their constitutive parts and proportions should be guessed by eye. He thought that for a correct development it would be necessary not to go away from natural models and exercise on different kinds of lines, arches, angles, parallelograms and other geometric shapes. These ideas were a long time the basis of the organization of the subject drawing at school. Because they were so rigorously defined we can assess that they did not allow a more flexible development of methods of art education until the end of 19th century (Tacol, 1999, 127-128).

Visual arts skills and techniques such as drawing, painting or sculpture have been taught in public schools since the 19th century. In spite of this, art education is a relatively new subject: little by little school curriculums in some countries recognized that (visual) art education is necessary for the full development of

children. However art education is not seen as a core subject, it has been more or less marginalized and many times it is seen as leisure time. There is an almost incredible misunderstanding of the effects of art education upon learning.

We will present the evolution of art education in Slovenia as a concrete example of how the subject developed in the last two centuries.

### **ART EDUCATION IN SLOVENIA: the development of the subject in the last two centuries**

It is possible to differentiate at least four important periods in the development of art education in Slovenia: from 1869 – the first inclusion of the subject in school programs, to 1918 – first world war and Slovenia being included in a »new country«- the former kingdom of Yugoslavia; from 1919 to 1941 – the period between wars; from 1945 to 1968 – post war time and the »revolutionary year of 1968« and from 1968 on, particularly stressing on the 80's, which meant the advent of the last important reforms which took place in the 90's of the twentieth century and are still actual.

Drawing as a mandatory school subject was included in school programs relatively late, not before the second half of 19th century. In Slovenia, the subject »Drawing« was established by law in primary school programs in 1869. In spite of the fact that it gained importance and recognition, it still did not follow in its contents the essentials of a growing industry which needed trained workers in the fields of visual arts. The approach to instruction was systematic and rigid. Imitation and copying were the main activities in drawing classes. Widely extended was the use of the stigmographic method to teach drawing: in special exercise books, pupils drew by uniting points (stigma) under the careful instruction of teachers, a kind of drawing dictation. It was believed that pupils could not represent, investigate and express themselves independently but that they should be guided. As well, drawing did not really function as an independent subject but related to other subjects as calligraphy, drawing geometric shapes and manual activities for girls. Among the most important characteristics of the programs in general, we can mention the gender differentiating orientation and the stress on the manual aspect

of the subject on different levels. We can mention the development of memory, sense of proportion, order, exactitude and hand skills as the main goals of the subject.

In 1886 the first reforming ideas were introduced: free drawing was detached from geometric and the subject gained more hours. Among the goals, we could add the development of the sense of beauty and larger pupil's independence at work. The stigmographic method was excluded from practice in 1894 by a special regulation. Following the model of the rest of the European countries, individual interests and distinctions were now on the focus of teaching efforts. Drawing was considered a mean of expression and a language, not a mere mechanical skill.

After the year 1918, at the times of the creation of the former (first) Yugoslavia, some minor content and organizational changes in the teaching of drawing were made but the goals did not differ. New contents from the fields of art theory and history, colour theory, ornamentation and descriptive geometry were introduced. The promotion of pupils' imagination and observation were also required and recommended (Tacol, 1999, 132-134).

The programs for the subject did not differ much after 1945. Technics, materials, motifs and themes were accurately defined and prescribed. Drawing was still defined as almost mere hands skill, non-intellectual, non-spiritual and not in any way a »real« educational subject. Creativity was not encouraged because the pupil was still the object of the instructive process. For the first time painting and drawing were considered as different art fields. Far away from individual expression, repetition of exercises and technical training were usual activities. Stress was put on the material organization of the teaching-learning process.

The school year 1957/1958 meant an important break in the evolution of the subject. At first, it changed its name and became »Artistic instruction«. Its reform based on the consideration of pedagogical, psychological and sociological aspects, taking into account the development and characteristics of pupils at different ages. It was divided into the fields of drawing, painting, print making, sculpture and artistic appreciation (evaluation). For the first time creativity,

imagination and esthetic evaluation were encouraged. All the further development was centred in the physical and spiritual characteristics of each pupil based on the knowledge about the individual evolution of every child

It is important to mention that the suitable preparation of the teacher was from now on also stimulated. The organization of the hour's content based on the explanation of a certain theoretical problem as the introduction to artistic expression with a certain artistic technic, theme and motif, as we define it nowadays, was brought about by these years.

After 1968 new tendencies in art education found their place in school programs. Through the seventies and early eighties the idea of artistic production conceived as an act of 'self-expression' or 'self-realization' was a pivotal conception supporting theory and practice in art education. The aim of visual art education was to provide opportunities for pupils to express themselves, doing creative things through art media. The influence of H. Read, who argued that education through art is concerned with the expression of feelings in communicable form was widely extended (Read, 1943). It pointed out the figure of the pupil and his development in a free, creative and integral personality. Every pedagogue should look for the balance between intellectual, emotional and motivity aspects or functions in the proposed exercises.

In the eighties new ideas had strong impact on visual art education, also in Slovenia. H. Gardner included more arguments in favour of the arts with his notion of »multiple intelligences« which include among others also spatial and bodily kinaesthetic intelligence. He also suggested that although there is no such thing as an artistic intelligence, each of the eight may be used »artistically« (Gardner, 1993).

In Slovenia there was a new school reform in 1980, its goals and objects included a step by step organization of material-instructional, formal-functional and educational achievements. Evaluation and understanding were focused on pupil's own artistic expression. The new name of the subject was »Art Education« and included drawing, painting, print making, sculpture, (architectural) space design

and artistic appreciation. The goals of the subject included the development of observation, space representation, creativity, imagination, evaluation of artistic and natural objects, the knowledge of contents from artistic theory and history, artistic technics, processes and materials, always rendering a direct relationship between practice and theory on the basis of the problem solving approach. In this way, instructional process followed three undivisible stages: presentation of the problem, expression – proposal of a resolution and evaluation of the results. The motives and technics always depend on the theoretical problem. This approach is being deepened in the last reform, which is taking place right now and with different researches, which provide didactic theoretical foundations for Visual Art Education. One of them is briefly presented next in this paper:

The development of the abilities of understanding verbal and visual signs should be ensured by visual art education. Therefore a teacher should enable gradual learning, understanding, experiencing and use of visual signs. That is why it is very important for all pupils to enrich the development of their manual skills and orientation, to experience with gradual understanding of visual art concepts and rules of visual signs' use within the visual art education process. These abilities should be already developed gradually and naturally (Matthews, 1999, 127) at the pre-school period and their importance should be additionally emphasized in primary school (Berce, Golob, 1993, 17-35).

Today's primary school visual art education mostly develops manual skills with the use of different materials and tools and experiencing when depicting visual motives, while the pupils' cognitive development is neglected. Therefore the continuous development of visual perception, presentation and expression that is appropriate for the stage of pupils' development should be included in the teaching and learning process of visual art education (Barries, 1992, 38-41). The balance between the abilities for verbal and visual expression should be established (Muhovič, 1986, 106). Considering this, teaching and learning as a multivariate activity that synergically activates both brain hemispheres of the pupil and allows for different affective, motor and cognitive changes should be already used with the youngest pupils. The most successful methodical condition for achieving such changes – experiencing and activating emotional, psychomotor and recognition

functions at pupils' independent visual art activities – is the problem solving teaching technique, where visual art education tasks are designed as problems by the teacher and are solved with specific visual art education work methods (Tacol, 1999, 60-67).

The theory and practice of the problem solving teaching method deal with the problem of the holistic and accordant development of pupils in visual art - in the affective, psychomotor and cognitive field, of realization and evaluation of the educational goals, as well as the use of appropriate work methods.

The researcher's assumption was that within the existing theory and practice of problem solving visual art education in primary school, there are still many problems considering the correct pedagogic-didactic realization, which makes it professionally questionable. The update of visual art education required such a teaching technique that enables the accordant cognitive development and influences the development of manual skills as well as the positive emotional-social change, values and attitudes. Basic scientific foundations for the pupils' cognitive development had to be set and visual art education had to become part of the pedagogic-didactic approach of the problem solving teaching technique in primary school by realizing the goals as defined in Bloom's taxonomy (Bloom, 1956, 12).

The research purpose was as follows:

- to test the problem solving teaching technique in view of the cognitive field as a whole,
- to test the efficiency of the problem solving teaching technique in view of individual categories (knowledge, understanding and use, analysis and synthesis, evaluation) as a field in terms of visual expression.

An experiment with departments was used for comparison. The experiment factor had two modalities:

- a) EG – problem solving teaching technique,
- b) KG – non-problem solving classic teaching technique.

The research included 280 Slovenian primary school pupils, aged ca. 9 years. The sample included urban and rural area schools and special attention was paid to

the teachers' equal professional background (Sagadin, 1977, 216). The practical realization of the experiment took place in the school year 1999/2000.

Two questionnaires were used:

- test of initial cognitive achievements,
- evaluation scale of final cognitive achievements.

Questionnaires were composed in compliance with the classification of subcategories in the cognitive field and the evaluation scale contained statements with 5-level Likart scales for each of the four categories. The acquired data were processed at the descriptive and inferential level with univariate and multivariate statistical methods.

The aim of the research was to confirm the organization of the problem solving approach in visual art education and to prove the necessity of the pupils' cognitive development – learning concepts from the fields of visual art education, developing abilities to describe these concepts and using them at art expression. The comparison of the prevailing theories on teaching techniques and the effects they show in the pupils' art work with modern, not as established theories on learning visual art concepts as a condition for harmonic and holistic expression development over a concrete problem task resulted in the following:

1. It was confirmed that pupils who took part in the problem solving teaching-learning process reached higher levels in the entire cognitive functioning – knowledge, understanding and use, analysis and synthesis and evaluation – than their peers who were taught in the classic way. The cognitive development of pupils also influences a successful emotional, social and aesthetic development as well as psychomotor development of manual skills.

The problem solving teaching technique enables pupils to learn successfully, which is shown by their recognition, understanding, judgement and memorising of visual art concepts. Their ability to use these concepts at expression was confirmed, which also enables pupils to develop higher cognitive functions, such as analysis, synthesis and critical evaluation.

2. Findings in individual categories of the cognitive field only reaffirmed the success of the problem solving teaching technique for visual art

expression. These categories are knowledge, understanding and use, analysis and synthesis and evaluation:

- a) The problem solving teaching technique enables pupils to learn – recognise visual art concepts. They judge, organise and upgrade them with observing objects and phenomena in nature, environment and in art.
- b) The problem solving teaching technique enhances the understanding of gist of visual art concepts and their relations that pupils gain through their teacher's presentation within appropriate didactical resources and through the observation of examples in nature. Better results at understanding concepts are proved verbally and with pupils' concrete expression, which also prove their ability of use. With expression they show they understand the processes of visual art techniques.
- c) The problem solving teaching technique enhances observation, discovery and analysis of visual art elements and processes of visual art techniques. Pupils are also better at connecting concepts from other fields and school subjects with those from visual art, at distinguishing the important and unimportant facts and at combining visual art with their own creative ideas. They are also better at analysing the relevant problems in their own works, in the works of their peers and other artistic works.
- d) The problem solving teaching technique enhances critical evaluation of pupils' own visual art knowledge that is referring to the presented problem task. They are more independent at finding original solutions to the demanded tasks. They are also able to define a correctly performed visual art technique and describe the independence and directness of any example of visual art expression.

Tested and described differences base on statistically important differences and were acquired at a large enough sample. Therefore they can apply to the entire multitude without significant deviancies and these results can serve teachers as an application guide.

This research has found a way how to enhance the entire harmonic visual development of pupils at visual art education. It was confirmed that pupils in primary school should not only develop in the affective and psychomotor area but also in the cognitive one. That is why knowledge about visual art concepts (cognitive area development) should not be omitted. The prevailing theory that

visual art education should develop only motor skills, imagination and emotions which are supposed to present the entire visual development is rejected.

The problem solving teaching technique, where teaching and learning present both a creative and a constructive way of mental and motor activities, should be a guide for teachers. The visual problem task therefore presents a starting point for visual expression where visual art concepts or a visual motif enables the recognition of the foreseen visual art concepts. Foundations for such teaching and learning are already incorporated in the visual art education curriculum.

Visual art education, as we tried to demonstrate, became a recognized field, including pedagogical research methods and a particular and unique process of personal development learning through visual language, media and processes.

### **ART EDUCATION AT THE BEGINNINGS OF THE THIRD MILLENIUM: different approaches**

As we stated at the beginning of this paper, the position and the meaning of art education depends on many factors, among them the definition of art and artistic activities in a certain concrete space and time. Such definitions carry a background actually based on prevalent ideologies. As a matter of fact, several rationales had been followed in art education according to the pressures of such ideologies, and in the context of globality, their influences and consequences are important because they generalize discourses and discussions which would probably look much differently in a different historic and social context.

In general, rationales for art education proposed major domains for learning in art and design. The discipline - based model (DBAE) created in the United States outlined four such domains: art history; aesthetics; art criticism; and studio practice. A very similar model was proposed in England by Allison in 1982 establishing four domains: expressive/productive; perceptual; analytical/critical and historical/cultural. Not very different was the model defined by Edmonston as sensory and perceptual, knowledge of art history, positive and informed attitudes towards art, use of tools and media and aesthetic understanding (Eça, 2002, 53).

The various domains in art and design education may sometimes identify common skills. However distinct philosophies of art education might emphasize different aspects and teachers might place more value on one or other skill according to their personal ideologies.

At least three distinct »philosophies« of art education can be detected: expressionist, reconstructivist and scientific-rationalist. Expressionistic approaches are bound up with notions of creativity, imagination and self-expression. The reconstructivist philosophy of art education is fundamentally different and in many aspects in conflict with the first one; instead of art for art's sake they espouse »art as a means to an end«, the end being social change. Scientific rationalism is a term usually used to describe the approach taken by those art educators who claim that art offers a particular way of knowing and that it is a discipline with its own methods of inquiry. A recently approach to art education is based upon three fundamental principles: difference, plurality and independent thought. These principles are embodied in the promotion of risk-taking, personal enquiry and the challenging of established orthodoxies (Eça, 2002, 54).

An extensive list of typical approaches to art curriculum in the end of the twentieth century with Postmodern promoting plural perspectives and approaches was synthesized by Burgess and Addison and quoted by T. Eça. The listed categories are not exclusive, indicating approaches that can be combined and are as differing as perceptualist - mimetic procedures, formalist reduction exclusively to the visual elements, procedures that emphasize the expressive aspect privileging the individual, genre-based, technical object-based, critical and contextual or issue-based approaches. Nevertheless, says Eça, the different approaches consider art as a means of social and cultural production privileging cognitive and analytical procedures, an integration of the personal with the social, political and moral through responses to current and contentious issues.

### **AS A CONCLUSION: Facing the challenges of postmodern heritage**

That we are living in specific times affirms F. Dyson stating that new technologies are constructing a particular kind of viewer that is »screen based« (Dyson, 1998,

30). This definition can also be extended (at least partially) to contemporary pupils. This is in short, the reason why we can affirm that education and art education at the beginning of the twenty first century face extremely complex challenges. The barriers that once separated the different fields of art no longer exist, new technologies such as multimedia and computer generated images brought an entirely new range of visual experiences and possibilities. Dynamic socio-cultural changes affected artistic expression of all kinds; debates about the cultural identity of minority groups, about issues of national identity, rapid changes in technology and the advent of postmodern philosophy of fragmentation and plurality reshaped assumptions supporting art and education. These transformations affected the way we approach and learn about visual arts: the traditional dimensions of learning are still present in our practices and at the same time, we investigate alternative concepts. Old paradigms based on technical skills, which prevailed when the subject found its way in school programs two centuries ago, encyclopaedic knowledge or mere self-expression are not responding to the demands of the society any more. It is important to approach art education from critical perspectives regarding the complexity of »visuality« deeply integrated in nowadays everyday life. Not only that everyone of us is bombarded with (visual) images but we must respond to them at every step, making decisions that involve creativity, originality, space visualization, motivation, imagination etc. Needless to stress, that we are not speaking about the work of professional designers but enumerating applications to areas as visual communications (particularly interesting are designs when working with the computer, like data processor), packaging, fashion, interior design, window dressing etc. which everyone of us, regardless of our professional fields, is in contact with every day.

The combination of theory and practice promoted by contemporary art education therefore serves to develop a sense of enquiry, an ability to take practical and intellectual risks, to be aware of decision making in a reflexive manner, to evaluate creative responses, to be able to articulate reasons for preference, qualitative judgements, or comparative aesthetic values, and engage with art and nature in public world (Swift, Steers, 1999, 7-13).

That is why Art Education has strong reasons to exist in education: it might be a way to promote learning experiences, developing understanding and creating representations of the world, creative and critical thinking through aesthetic dimensions. The aesthetic dimension is an unique process of cognition that can be developed by art education and exploited by other fields in the school context. In fact, a global understanding of past as well as contemporary world demands a complex of elements and rich »connecting experiences«, which should be one of the principal objectives of school education at all levels.

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