VISUAL LITERACY AND DOMINANCE OF THE PICTORIAL WORLD

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Abstract

The dominance of the pictorial world forms the beginning of the effect of new visual civilisation in the 21st century. Today, we already know that photograph, film and television are just fist stage of visual era. The modern phenomena of digitalisation and mass communication related to the development of information and communication technologies and Internet, dramatically saturate the pictures and pictorial messages to public space and thus also to our everyday life. Posters, billboards and various visual posts attack us every day with their pictorial messages, trying to influence us while going to the work or school as well as while being on the road for a joy or relax. The presence of visual impulses is perceived also in the public space, for example in shopping malls. In such an environment, their role is to affect our purchasing habits. The information lettering in pictorial form -iconograms- orientate us on the streets, at the stations of mass transport, at the airports, in shopping malls, in tourism regions. Today, Internet and social networks are mainly the source of information mediated in the form of pictures in multimedia form. We can not only watch but also create video messages and films on the biggest worldwide Internet portal YouTube we send MMS via smartphones, and we take photos and record videos using the intelligent mobile phones. Another example of digitisation and mass communication is web page Pinterest allowing the users to create thematic sets of pictures or photos free of charge. Of course, the contemporary visual expression may be disputable as long as its functionality is concerned. Many times, we are the witnesses of the origin of the world of "hyper-reality" or virtual reality where experience, real pictures or products are replaced with the virtual ones. The immersion into the new "world" is not investigated to such an extent that we would be able to assess the impact of "hyper-reality" onto the emotional and rational world of a human.

In the article we present a theoretical model of visual literacy and develop new personnel competencies of children for the 21st century, such as visual perception, visual thinking, visual language and learning visual literacy.

Keywords: pictorial world, four literacies, visual literacies, pictures, visual superiority

1. INTRODUCTION

The visual imaginations established in the human culture extend through a long history of the development of society – from first cave murals through medieval paints and sculpture – up to the new forms of imagination in photograph, film, advertising, video, computer games, and the most recently also in Internet social networks. Visuality and human being are the interconnected vessels. Malcom Barnard (2001) claims that: "What is visual that has become an important experience in human life. It is more under the influence of

visual materials and we are even more dependent upon them" (p. 4.). Also Nicolas Mirzoeff (1999) is of a similar opinion when stating that "we can speak of the central importance of feelings in everyday life"(p. 7). Several authors are of the same opinion that as if a visual turns in a modern and especially in the post-modern society. In the view of this, M. Sturken and L. Cartwrigh (2001) note "our culture is a visual culture to a great extent. The western culture was controlled by visual media instead of spoken and written mediations of information in the course of recent two centuries. We live in the culture that is more and more infiltrated by visual images with various targets and intended effects"(p. 10).

2. FOUR KEY LITERACIES

Due to the rapid technological development and globalisation, the new millennium we live in brings the new demands on skills. In principle, we face the challenge to manage four key literacies: the information, communication, multicultural and visual one (Fig. 1).
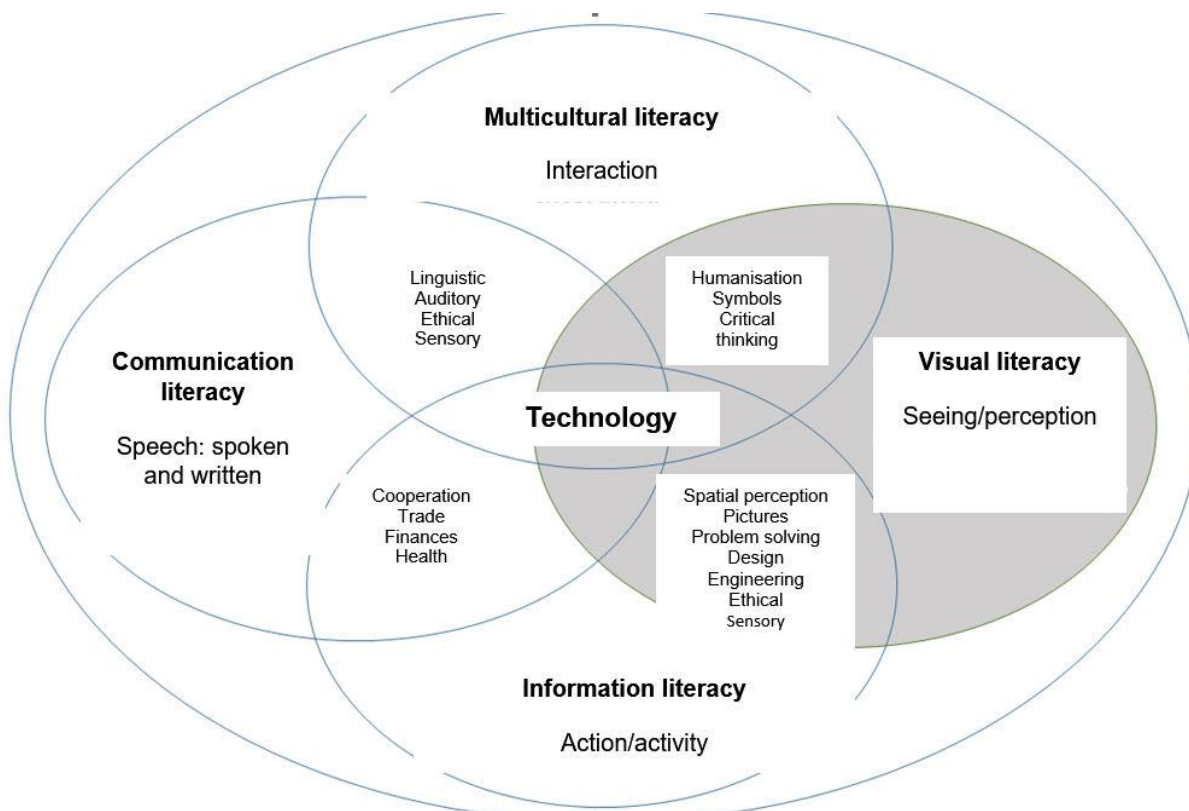

Fig. 1: Four key literacies: the communication, information, multicultural and visual one. Relations among the literacies

The communication literacy is the ability to communicate in active manner and using a reasonable form and to present information. This is the set of competencies through which we learn, understand, comprehend, and apply all nonverbal and verbal characters and symbols of the corresponding culture serving for communication.

The information literacy relates to the ability to functionally see and efficiently work with information, to be able to search, select and further communicate them. It is based on the use of information and communication technologies and their availability. As long as a man cannot use the information technologies, he cannot achieve information literacy. The information literacy requires substantially more than just the ability to be able to use internet browsers of Google type for information digging. This is the ability to recognize when and what information are needed, the ability to efficiently and purposefully look for the necessary information, to localise the information and information sources, to master the methods, techniques and strategies for information searching. Also to critically evaluate, assess the information, to compare them and on the basis of this select and obtain them) (excerpt, dig, select) from information sources.

The multicultural literacy is the ability to orientate in a different cultural environment. To dispose of the literacy of this type means to be tolerant, to respect manifold cultures, to have a pro-social behaviour without

prejudices and barrier towards people coming from various cultures and to accept the differences in the broadest sense. Thus also to explicitly position against intolerance, racism and xenophobia.

The term of visual literacy appears in scientific and technical literature more seriously approximately from the half of the 20th century. Within the course of the period, the visual literacy is defined in both narrow and broad sense; however its definition often changes. R. Pettersson (1993) says that "visual literacy is the learnt capacity to exactly interpret the visual messages and to create such messages. The interpretation and capacity to create could be characterised similarly as reading and writing of hard copy texts"(p. 62).

2.1. The Cultural Space of a New Type

To have the visual capacity[1] that is determined neuro-physically, by age, learning, profession also means to be visually literate. K. Raney (1999) describes the visual literacy as the multilayer phenomena, as the perception sensitivity, at the level of everyday perception of environment (life) and the relations of every individual. Thus we may speak of the cultural space of a new type, in which the life style is created, not only in the field of the creation in the category of perception, the classification schemes or aesthetic judgements. Also the ability to be tolerant and recognize the cultural demonstrations of other social groups and sub-cultures, for example the culture of children, old people or ethnic groups is important. Furthermore, it includes also the ability of critical thinking and thus related cognition of the means of expression in visual mediation, the recognition of intention with what the picture is created, in the context of history and present time. Last but not least, it is necessary to speak also of the ability to recognize how the picture acts in a certain context, who and why placed it to that context, what group of recipients it should address and why. Also the aesthetic openness is important, in the sense of openness to the emotional and empathic relations and processes, in the ability of visual expression, in the ability to creatively generate any visually perceived picture and object in the broadest sense of word – from oil painting up to web page, from top design up to the common flat furnishing. "The visual literacy relates to a great portion of attained abilities, thus the ability to understand (read) and use (write) pictures, as well as think and learn"(Avgerinou, 2011, p. 26).

It is unambiguously implied by the study of foreign special literature (J. Clark-Baca, J. A. Hortin etc.) that there was hitherto no agreement about the unified definition of the term of visual literacy that would be accepted by the majority of renowned theoreticians – researchers. In general, there is just the agreement about the main aspects expressing it: visual perception, visual thinking, visual language, visual communication and the attainment of new visual abilities by learning. The main reason of the instability of the definition of visual literacy is of course that the groups of theoreticians – philosophers, aesthetes, art scientists, linguists, psychologists, physiologists and neurophysiologists, sociologists – view this term from various points of view and disciplines. The term of visual literacy appears also with the increasing impact of other fields, such as cultural anthropology and cultural theory and semiotics, dealing with the non-language systems of communication. The opinions of the individual groups form a kind of mosaics about the theory of visual literacy. However, the result is the non-homogeneous vies preventing the formulation of a unified holistic definition. In other words, these theoretical vies provide us with sufficient quota of knowledge about the concept, despite that they are not sufficiently arranged in a single structure and they explain the related phenomena in an insufficient way. Thus they do not provide answer to all questions. However, what is positive is mainly that several theoreticians are inclined to the opinion that art, philosophy, linguistics, psychology belongs also amongst the basic disciplines of visual literacy. We agree with R. A. Braden, J. A. Hortin, J. Clark-Baca and the other ones in their opinion it is necessary to accept visual thinking, visual perception, visual communication and the attainment of visual abilities by learning as the fundamental concepts of visual literacy. At the same time, it is necessary to state that there was not elaborated in details any relevant theory of visual literacy till now. The reason may be also that the majority of researchers is focused rather on the practical applications and learning of visual literacy. According to them, the theory of visual literacy should stimulate generally valid strategies, therefore they suggest approaching to it from three different angles of view.

1. From theoretical point of view, covering the philosophical, psychological and physiological aspects of learning.

2. From the point of view of the development and cultivation of visual language, including the approaches focused on the recipient, with the aim to help the individuals to become visually literate by means of visual stimuli.

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[1] The newer definitions are inclined to the term of ability (not skill or competence). The ability is explained as the ability (a) to read/decode/interpret the visual messages; (b) to write/encode/create the visual messages. Third ability is the ability to visually think. Despite that it could seem all this is comprised in the majority of definitions, the ability to visually think was included and explicitly expressed only in newer definitions.

3. From the point of view of education, to establish the starting points embracing the approaches focused on the presentation and improvement of the communication process through visual stimuli (Griffin, Whiteside, 1984, pp. 70-82).

2.2. To Read Pictures is more than to Read and Write Text

The Visual literacy covers the impacts and factors of many theoretical disciplines and areas of science and research. Many researchers from various fields explain their opinions and interpretations, writes extensively about visual literacy from their point of view. However, we may see in their expressions and arguments that they stress out different competencies of the literacy, that ones are considered by them to be priority in their scientific field; it is different in exact sciences. Mathematics, physics or chemistry does not include double-edged symbols and formulas; this implies their communication language is univocal. Of course, the verbal language of an expert must be also clear in the technical description. But when taking prose as an example, being the verbal formation that is open to many interpretations, thus semantically equivocal, then also images are often equivocal. Their authors try to get visual language closer to reality. Visualisations are iconic and the often resemble the object represented by them.

Images speak to us the identical way as our experience does, thus in emotional and holistic way. The contents of an image is often more important than the form itself, the product itself, the majority of people is persuaded the images realistically reflect reality. Yet just a few of them realise that "what they think of, what they can see on the pictures, depends upon what they expect they would see and also that they would learn something from that"(Singer, 2010, pp. 39-52). To understand the pictures, their meanings, to feel them in all forms and expressions, means to dispose of the ability to understand both language and the form of communication. Let us illustrate this on an example: When viewing a picture, we cannot read the letters and numbers, yet we are able to identify the shape, form, size, line, composition, rhythm, movement and action. We are able to encode and decode the visual messages and thus we are able to read and write, to express ourselves using visual language. The visual pictures have the power to connect our senses. What we need today is the alphabetisation and literacy of the new age. With regards to the predominance of pictures over text information we may call the ability the visual literacy.

Identically as the traditional literacies, also visual literacy is culturally specific despite that there are universal symbols or visual patterns having a global character. The images as well as pictures and other visuals are cultural products shared by the individuals and according to Singer, "the individuals sense them individually too"(Ibid). Linguistic and cultural differences may have an impact on the efficiency of visual perception. This is the reason for creation of verbal and visual messages in such a way they would suit every group of perceivers. If there is no discourse and pictures are not sufficiently analysed, interpreted, they evidently would not correctly explained and understood.

In the contemporary world, heavily saturated with pictures and media, our view of what literacy means must be extended, or even re-defined. To read pictures is more than to read and write text, this is the "reading of the world of pictures." The Kaiser Family Foundation Study (Kaiser Family Foundation, 2010) implies young people devote still greater attention to the pictures in the new media (Internet and social networks). While this was six hours and twenty-one minutes a day in average in 2009, it is seven hours and thirty-eight minutes a day in 2013. The numerical data say there has been a significant shift for 4 years and young people pay greater attention to pictorial information, they devote more of their time to them, by one hour and seventeen minutes. We may state that the use of new media has been intensified for recent 10 years, thus also time capacity devoted to media by young people has been increased too, save one exception – the interest in reading has decreased, yet it still consider it to be the basic, non-excludable literacy. Saying it in more unambiguously, text reading gets to the background and the first place is attained by reading, or perception of pictures in electronic media. According to one of the surveys in the USA (Kennedy, 2013) children from the families of a middle class at the age up to 5 years read thousand hours a year (2.74 hours a day), however children from low-income groups of inhabitants read just a hundred hours a year (0.27 hours a day), thus ten times less. This implies that the social status and family environment significantly participate in the development of literacy in general and thus also in the perception of visual literacy. Every negative tendency in reader´s ability has its consequences, even more when we know that just the reading with understanding supports creativity, develops imagination, the ability to create pictures.

2.3. Visual Literacy: to Look – to See – to Describe – to Analyse – to Interpret

All we can see around is an image. Thanks to our vision we can perceive up to 90 per cent of information about the world. The surveys prove that the non-text (pictorial) information is read by us even 90-thousand times faster than the text one. When viewing a certain object, we can see it at first and on the basis of this we can describe it. When we are able to describe it, then we can analyse it and subsequently interpret it. In

the final stage, we can create meanings on the basis of this perception. In other words, we cannot remember everything we can see, however visual literacy gives us the ability to create (construe) the meanings from pictures. This is not literally the intellectual ability but the important form of critical thinking supporting our intellectual capacity and integrating the potential of our senses. Especially now, in the digital age, it is inevitable to integrate dual form of information: picture and text, despite that finally everything is a picture since also text, when perceived by vision, is the part of visual literacy.

Visual literacy is not a skill in the common sense of the word that would be used by a human as a tool. It is the form of critical thinking increasing our intellectual capacity and allowing to:

- Interpret the contents of the images.
- Investigate the social impact of the images.
- Dispose of the ability of internal visualisation.
- Discuss about their meanings with target group (to characterise who they are intended to),
- Visually communicate.
- Read and interpret the images.
- Create opinions about the accuracy, validity and richness of the images.

Visual literacy is the ability to develop meanings from everything we can see, to find the sense in everything we can perceive. Visually literate man can read and write using the visual language since he/she masters the process of emission and reception of messages by means of images. A man with average education can read the information in pictorial expression and picture form, he/she is able to orientate in the multimedia world. However, the problem is the contemporary concept of education supports rather the development of reading literacy (the understanding of the meaning of letters and numbers) and computer literacy, but neglects sensual literacy, dealing mainly with the convertibility of received and handed out information through all sensual channels. In order to be visually literate, we need to constantly develop and improve our abilities, to train our visual capacity, thus to learn how to interpret the meanings of pictures and also how to create the meanings from the presented information in the form of pictures. Visual literacy helps to develop also the verbal (written and spoken) speech. We share the opinion of Avgerinou (2003) that the abilities of visual literacy can be: (a) learn, (b) teach, (c) developed and improved. Visual literacy, we are interested in, is the alphabetisation and literacy of the new age. This should be our priority in the entire society, including the anchorage of the given problem in the state curriculum documents, with the aim to develop and cultivate the visual literacy in childhood already.

3. LEARNING THE VISUAL LITERACY

The known exchange of opinions between Piaget and Vygotsky about the origin of language and ideas presents their extreme positions, yet it also warns of the development of thinking. Whether we can agree in the opinion that "the language is the creator of an idea" or that "the idea is the predecessor of language", both processes are non-disputable in their interaction and they mutually complement each other" (Thorn, Braun, 1974, p. 33).

3.1. Interface between Verbal and Visual Language

Language is examined in its receptive and expressive form; the need of first form for the other one is adequately proven. Vygotsky claims that language enables the individual to internalise his/her cognitive processes. He considers language to be really needed since "we can schematically imagine thoughts and speech as two intersecting circles. The thought and speech form something in their intersection what is called the verbal idea"(Kim, 1980, p. 142). Piaget states that the language itself is not necessary for the development of ideas, but the concepts of thoughts are developed in the interaction with environment. Similar conclusions are suggested also by recent studies about the vision and visual intelligence. They relevantly prove that reading is not a passive, receptive process, but on contrary, very active process. When looking for the meaning of the visual text in front of our eyes, the readers usually view the "unit" or meaning, not the individual pictures, such as the letters. A good reader uses visual information in very selective way, which suggests that he/she pays not too large attention to every "segment" of information, thus to every letter on the page. The similar situation occurs in the case of writing (unless it is a pure copying or recording of text from spoken statement), that are also the active process and in fact includes information processing. A good writer has a "good eye" not only to be able to describe what he/she can see in his/her vicinity, but to be able to see better "inside" and to be able to express his/her feelings. Gardner (1982) characterise the creative writers as the persons with a great "verbal sensitivity" that is different in the case of poets, story-tellers and

novelists. The poets are rather sticklers; the story-tellers have a talent for a "lyric compression" and the novelists the talent to adapt the language to the character and situation. Another positive feature is they have a "good eye" since the "good writer" can see things sharply, vividly, accurately and selectively" (Piirto, 1990, p. 364).

Literature, music, theatre, fine art, architecture, medicine, machine engineering as well as some other artistic, natural science and technical fields often get the epithet "combination disciplines" and they are the clear example of the existence of strong bonds between the visual and verbal language. The majority of theoreticians incline to the opinion the term "visual literacy" emerged from the interface between verbal and visual language. Despite that, some questions are the subject of discussion:

- The identification and differentiation between the symbols is possible to such an extent to what they belong to the field of visual language or the field of verbal language.

- The extent to which the visual language has a parallel with verbal language affects our perception and thus also the visual literacy.

- The possible consequence of visual literacy is necessary for the development of verbal literacy.

3.2. "Reading" of Pictures with Understanding

Visual literacy is the cognitive quality, yet it draws also from the affective area. We have to learn to critically and creatively think, communicate the contents as well as to create meanings. This is not the congenital property. Thus we need to master the ability to observe, deduce, and reveal stories. Also to find the information and analyse the arguments why they came into existence, to think about details, to formulate an opinion. Saying it in simplified way, we must learn how to visually "read", how to understand the contents (Fig. 2). This means to answer the questions of the following type: What am I looking at? Where is it? Who is it? What did happen? What feeling is evoked by the picture in me? What is the meaning of the picture for me? What story is hidden behind the picture?

Fig. 2: Pablo Picasso, Guernica, 1937, oil on canvas, 349.3 x 776.6 cm. Picasso made forty-five preparatory drawings and he worked on six versions of the canvas till he created the final version for the Paris International Exposition in July 1937.

On 26 April 1937, the Nazi bombers supported during the Spain civil war by fascists headed by General Franc, made the aerial attack on the Basque city of Guernica at the North-east of the country and they totally destroyed it. The horror of the event is recorded in Picasso´s canvas he started to paint immediately after it and completed it within one month. The piece of art radiates the fixedly anchored belief of Picasso in freedom for everyone that placed him to the side of the suppressed ones and the victims of violence. Despite that, the picture does not comprise any specific details that could relate with really bombed Guernica. It is the symbol of destruction caused by any conflict of war. Since the artist did not use any particular mention of the given event, he imprinted the generally valid message to the canvas: a war is the insanity. We can see the symbols of animals on the canvas: Bull and horse, traditionally satisfied with bullfighting, symbolise the Spain victims of suppression. Colours: In order to create the scene where fight and death rule, Picasso used just white and black colour and the shades of grey. Portrayal: All the figures, tortured by the force of suppression, are expressed in drawing; they are broken to irregular shapes. Crying: People and animals on the canvas have their mouth wide open, they are the expression of a crying and dread.

The longer and the more thoroughly we "read" the canvas, the more it would reveal to us. Different level of cognizance, different views (one can see it this way and the other one in the other way) can finally complement each other. The scope of possible interpretations of pictures, objects, visual events, photographs related to other pictures and related information, surely affects the organisation of thinking of

the perceiver.

The concept of visual literacy leans on the statement there is a visual language or visual aspects (Avgerinou, Barry, Moore & Dwyer, Pettersson, etc.). The visual "reading" of pictures or any other visual forms gives us the opportunity to better sense and learns the basics of visual thinking and visual language. The visual language is a complex code and we have to learn it in order to understand it. This is the specific (distinctive) process of learning taking place immediately, while its decisive factor is the quality of vision. This is the active process of reception and delivery of information that requires the own contemplation of the individual as well as the application of the principles of creativity. By perceiving and interpreting the visual pictures in internal and external environment, all the types of information of visual character, we look for the responses to asked questions, we discover stories and messages. In communication, we support the development of critical thinking, at the same time we create the space for creation in itself.

3.3 The Effect of Visual Superiority, Image – Word Relation

The non-verbal communication between a child and his/her surroundings precedes the verbal communication and it forms the basis for later learning and development of language, which means that the skills of visual communication in this case are not secondary but they are developed sooner than the verbal ones. A child can remember images (pictures, illustrations, and photographs) sooner than the words (Supsakova, 2013). We call this the effect of visual superiority. The contents mediated in the harmony of image - word, can be remembered by the child much faster and for longer time than the word itself, or the image alone (Haber, Myers, 1982, pp. 57- 64). The pictures and texts represent different languages that are supplementing each other when used together. The visual messages are preferred to verbal expression mainly since their contents are mediated emotionally, holistically, instantly, in a spatial expression. According to Boeren (1994), Zimmermann and Perkin (1982) illustrations or other image expressions, as long as they are intended for learning the visual literacy, are understandable supposing:

- That what is displayed (the object) is close to that one who is educated.

- That the object is displayed in a realistic way.

- That the missing details, meanings may be deduced on the basis of the main features of the unit,

- That the style of the displaying of the object or phenomenon is close to the viewer, perceiver.

Fransecky and Debes (1972) define the basic objectives in learning and teaching of visual literacy as the "ability to read the visual images made for goal-directed communication, the ability to design visuals for goal-directed communication, to make the images for goal-directed communication, to combine visual and verbal languages for goal-directed communication"(p. 12). However, the development of visual literacy depends upon the interaction of the child with images, objects or other visual forms. Visual language must be developed purposefully in the early childhood, to direct the child and create the conditions for these creative activities. All this with the aim to develop his/her imagination and the "reading" of pictures with understanding, as well as the visual (self-)expression (Fig. 3).

Fig. 3: The texts and pictures represent different languages that are supplementing each other when used together. The authors of cartoon stories are the pupils from the Elementary School of Vranov nad Toplou, Slovakia.

When the pictorial information are accompanied with text information (legend, bubble, mark), the picture is easier to read and it is also more comprehensible. The texts and pictures represent different languages that are supplementing each other when used together. Both text and pictures may be designed, presented, perceived and interpreted in many ways. The possibilities for the use of typography and graphic design and for the combination of texts and pictures are unlimited in practice. There are always several options how the message can be expressed.

4. CONCLUSION

Children are mostly able to create the bonds between verbal and visual expression, supposing the text and pictures are associated in memory at one time. It usually takes place when "text and pictures of various character are on the same page in the book (so called cognitive principle) or when the child has an experience with the creation of associations while reading the text" (Mayer, 2002, pp. 85-139) . However, it is necessary to bear in mind that the pictures may also have a negative impact on the child; they may associate a wide range of emotions, from enthusiasm to fear. Too many pictures may distract the attention of the reader and to flood his/her memory capacity, therefore he/she starts ignoring them. The quality and design of visual indubitably depend also on the used media – the traditional media, new media and multimedia. It results mainly from formal or technological aspect of the creation of an image and the preferences of media predetermining design. The other requirements for design are in the case of print formats different from that ones in the case of electronic formats and thanks to them also the method of perception and interpretation of images is different.

The visual ability and skills of visual literacy may not be isolated from the other sensual properties. The visual communication, visual thinking and visual learning are integrally related to the visual literacy, "they belong to the main constructs of theory of visual literacy"(Avgerinou, 2003, pp. 29-41). Since its contents include also the other theoretical imperatives from the other fields and areas, its main intention should be also the targeted communication in educational contexts of curriculum.

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