

Teachers' Visual Creativity in Learning Environment

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Abstract: Nowadays a pupil spends most of his time in school environment, this involves different social impulses and many-sided possibilities of obtaining information and it can become a facilitator for learning and acquiring cooperation skills. Environmental impact in all its dimensions – physical, social and informative comes to human's perception visually, audibly, manually. Visual perception is very important as it determines receiver's initial attachment of information, stability and formation of associations. This greatly influences emergence of the first notion and creates interest and facilitates stability of information in memory. Teacher's position and job specifics give many possibilities and bring big challenges for pupils today in maintenance and creation of corresponding learning environment, therefore teacher's professional competencies and visual influence are significant. The aim of the article is to research the essence of teacher's visual creativity and ways in which it can be applied in learning environment. The article analyzes learning environment and its specifics today, teacher's creative competencies and their possibilities in facilitation of learning process. Methodology, in correspondence with the set aim of the research, includes review and analysis of theoretical scientific literature and different sources. The obtained results of the research discover versatility of creativity and explain the concept of "visual creativity", defining its manifestations in the categories of learning environment. Conclusions point to big influence of visual creativity on the development of learning environment and a potential for pupils' achievements in learning.

Key words: environment, learning environment, creativity, visual creativity, school education.

Introduction

The aim of teacher's pedagogical activity in the 21st century is to stimulate humans to fulfill themselves as social human beings, attesting cultural values, and creating environment, in which communities' joint aims are cognized and each person's talent is developed (Starptautiskā konference..., 2013). To reach this aim, United Nations Educational, Scientific and Cultural Organization „UNESCO” has proposed to lay more emphasis on creation of learning environment, which facilitates freedom of humans reasoning, imagination, thinking, feelings, so that person in this environment can develop its talent and could in scope of his possibilities decide and control its life in unforeseen circumstances of the future). Therefore, a person is not a tool of development, but an aim, which has to be reached in learning environment, focusing on the development of each talent and discovery of predisposition. Also in professional standards for teachers (Skolotāja profesijas..., 2004) one of the main duties of the teacher is mentioned - to organize safe and supportive educative environment. There are plenty of studies that testify learning environment as the main professional example for pupils, which contains very a big potential for development of skills but they lack information how it has to be done, especially in connection with “modern” skills (facilitation of talent development, courage to experiment, creativity, ability to express own opinion, independence and other). There is lack of stabile methodology and social experience and traditions have not been developed.

Teacher's creative competency has a determining role in the creation of learning environment. Creativity in organization of learning environment is vital not only in showing professional example and providing the right conditions for pupils to learn appropriately, but also so that adaptation of environment could be at all possible, because without creativity a person cannot adapt to environment, not to adapt environment in correspondence with own needs. Creativity is important in the change of environment. Intelligence allows humans to adapt to the surrounding environment, but this is closely connected with the activity of the left temporal lobe and at the same time it blocks a large part of creative element, because it is necessary to fall within the system and to make efforts to blend in not to differ and transform, which suppresses creative skills. Whereas ability to change the surrounding environment – adaptation to own needs (imagination and realization) involves high creative component (Sternberg, 2006).

Today pupils in school still have problems with achievements in learning, they have low motivation for learning. Learning environment is significant in facilitating pupil's positive emotion and motivation to learn. Pupils not always like to be in school or class, and this significantly influences pupils' interest and wish to learn. Teacher is the organizer and leader of learning process, he has to look for new possibilities how to create learning environment that pupils would like and that would motivate them to learn. Therefore, it is important for a teacher to develop competency and new skills. Creativity is one of these skills. Creativity as productive activity, in comparison to reproductive activity (delivery of information, fixation, maintenance), can give innovatory and new results, which makes investment and determines success in many practical aspects of life, culture, education, production.

Creative skills and their implementation have been widely researched by (Black, Harrison, 2002; Briška, 2014; Cooper, McIntyre, 1993; Creativity, find. ..., 2004); C. Cullingford (2007); J. Rudduck, D. Arnot (2003) etc., but creative skills are still not self-evident in every day practice in schools today (Briška, 2014). Studies about teachers' creative competencies can be found more rarely. Professional standards for teachers and mass media widely state creativity as a very important factor, but there is no information how to use creativity in learning environment and how to make environment and teachers' job more corresponding to pupils' needs.

Teacher's visual creativity in the research is viewed as a possible solution for creation of modern learning environment. Visual creativity has been researched in many fields, and our modern era is described as „the era of visual generation”, „linguistic transition to visual”, „dominance of visual technology”. From various scientific studies (Bebre, 2011; Black, Harrison, 2002; Carey 2008; Delors, 2001; Lubart, Sternberg, 1995; Sternberg, 2006; Vidnere, 2011) it can be concluded that visual creativity is necessary to build creative learning environment, which would facilitate to reach achievements, but it is not scientifically grounded up to this moment and is connected with pedagogical context, therefore the aim of the research is: to research the essence of teacher's visual creativity and possibilities of its use in learning environment. The research question is as follows: what are possibilities for use of teacher's visual creativity in learning environment?

Methodology

Scientifically theoretical grounding of the research involves authors' works about creativity and learning environment. (Bebre, 2011; Briška, 2014; Carey 2008; De Bono, 2009; Holzkamp, 1983; The Routledge International..., 2013; Advances in educational..., 1974; Delors, 2001; Lubart, Sternberg, 1995; Mendelsohn 1976; Miķelsone, 2000; Šūmane, 2012; Tainena, 2008; Vidnere, 2011; Wiater, 2002; Zimmer, 2005.).

This research has been started in spring 2014 there has been made a potential research of learning environment in connection with creativity. Most recent scientific researches in the context of learning environment were synthesized in autumn 2015, when there was analyzed and integrated also the main focus of research – visual creativity. During the research, it was ascertained that there is no information about manifestations of visual creativity in school – learning environment, although visual communication has become dominant disclosure of information nowadays. In research there has been used the method of content analysis, which is suitable for big scope of parallel (different branches) information compression and categorization in result to get classified and synthesized information, which could be included in unified system and to state its mutual influence and function from pedagogical point of view. The method of content analysis is grounded by the specifics of the research problem, theoretical statements in the methodology of pedagogics, use of existing knowledge in social science and humanities. There was selected as valid this part of sources for the research, which allows to unite the obtained results in knowledge and practice research, and to synthesize them into mutually supportive system, which corresponds to the object of research and problematic, as the research for the science of pedagogy notifies new arc of research – visual creativity as a part of current learning environment. The results of the research are generalized, but examples are described in the context of Latvia.

Results and Discussion

Creativity in science and in different other its branches are defined differently, but notwithstanding the branch, creativity is connected with creative work, which involves original and valuable categories, therefore as content root of the concept of creativity is considered – creation of something new and valuable. In this research the essence of creativity is viewed from the position of recipient (receiver), placing an emphasis on visual type of creativity. This view does not contravene with other research theories of creativity and descriptive structure, but it supplements and offers new aspects of creativity research, which is very important in the context of pedagogy.

In scientific literature, learning environment is viewed as three-dimension mutual interaction, which influences individual and at the same time, it is influenced from the individual. Collecting authors' statements about environment (Bebre,2011; Plucker, Beghetto, 2004; De Bono, 2011; Holzkamp, 1983; Advances in educational..., 1974; Lieģiniece, 2012; Lubart, Sternberg, 1995; Mendelsohn 1976; Miķelsone, 2000; Pedagoģijas terminu..., 2000; Sternberg, 2006; Šūmane, 2012; Tainena, 2008; Vidnere, 2011; Vides zinību..., 1999; Wiater, 2002; Zimmer, 2005; Ясвин, 2001) was created schematic image of learning environment (Figure 1).

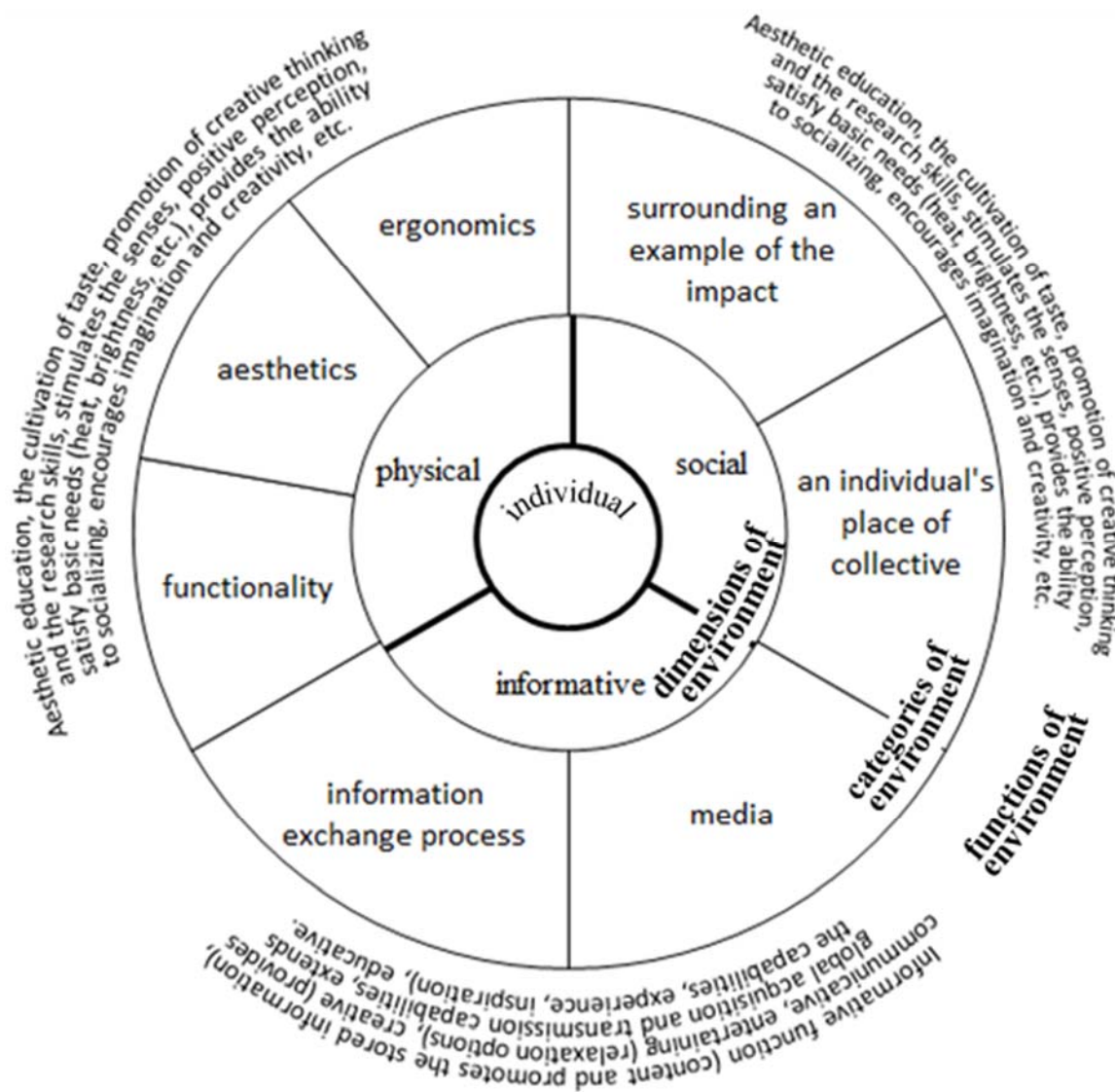


Figure 1. Interaction of environment.

Individual is in environment, which is described by environment, body of external conditions – both spatially physical environment (room, temperature, objects) and social environment (classmates, communication, others' opinion, family values, atmosphere), informative environment (different sources of information, teaching aids, technical means). Dimensions of environment are mutually connected – they influence each other and are influenced both from individual and mutually. Environmental categories describe the essence of each environmental category, which in reality is the result of mutual influence, therefore they are not precisely divided as a part of specific dimension (for example, the space of room influences functionality of physical environment and ergonomics depending on the amount of people in the room and the space of room influences physical well-being (intimate distance, security, etc.) and human relationships – social functions change). This process cannot be separated from the specific environment and conditions, in which it takes place, therefore achievements and development in this spheres is closely connected with environment and mutual influence and also the specific functions of environment are relative (depending on many conditions and specific situation), thus also creative manifestations in the corresponding environment are ambivalent. Teacher in this scheme of environment (Figure 1.), from the point of view of pupil's learning environment at the same time is the element of social environment and at the same time is also one of the main influencing factors of all dimensions of environment.

The concept of visual perception has become well known comparatively recently (21st century), when plethora of information, marketing, haste and repletion very much determine human's ability to perceive and to sort information, therefore exactly visual type of information, which in the shortest time gives the biggest amount of information (in contrast to audial or kinetic perception) (Carey, 2008). Visual creativity is understood with such creative manifestations, which are perceived with sight. „Visual”, possible to be seen, easily seen or understandable”, this is something connected with sight; perceived with sight (Farlex, 2015; Science Dictionary 2015; Akadēmiskā terminu..., 2015; Vocabulary, 2015). In the visual definition included „easily understandable” precisely describes also our current means of communication in this global era of communication – quick, easily surveyed and perceived means of communication, which allows quickly to perceive, find and give information – in visual way. With this can be understood, that physical material urgency is essentially diminished, as well as practicality of long written texts, human perception has been reduced to perception of flowing, big and digital information (Carey, 2008). Nowadays information in technologies is quickly and easily accessible everywhere, but its scope essentially surpasses borders of human's perception, therefore more vital becomes especially sorting of information, “diagonal reading” and visual perception. Quickly spreads use of video tutorials, applications and photos in delivery of information without wide use of words (The Routledge International..., 2013).

Visual material, its essence and connection with human's perception, is viewed connecting it with the specifics of certain branch, environment and context. In education and pedagogy, this mainly has to be understood as learning environment in school. Basing on scientific analysis about the essence of visual creativity, teachers' creativity and learning environment (Bebre, 2011; Black, Harrison, 2002; Carey, 2008; Briška, 2014; Cooper, McIntyre, 1993; De Bono, 2011; De Bono, 2009; The Routledge International..., 2013; Advances in educational..., 1974; Landau, 2007; Delors, 2001; Lieģeniece, 1999; Lubart, Sternberg, 1995; Akadēmiskā terminu..., 2015; Miķelsone, 2000; Rudduck, Arnot, 2003; Science Dictionary, 2015; Sternberg, 2006; Šūmane, 2012; Tainena, 2008; Vides zinību..., 1999; Vidnere, 2011) There is created a figure (Figure 2), where are gathered indicators of manifestations of visual creativity, correspondingly to each dimension of environment – social, physical and informative in learning environment.

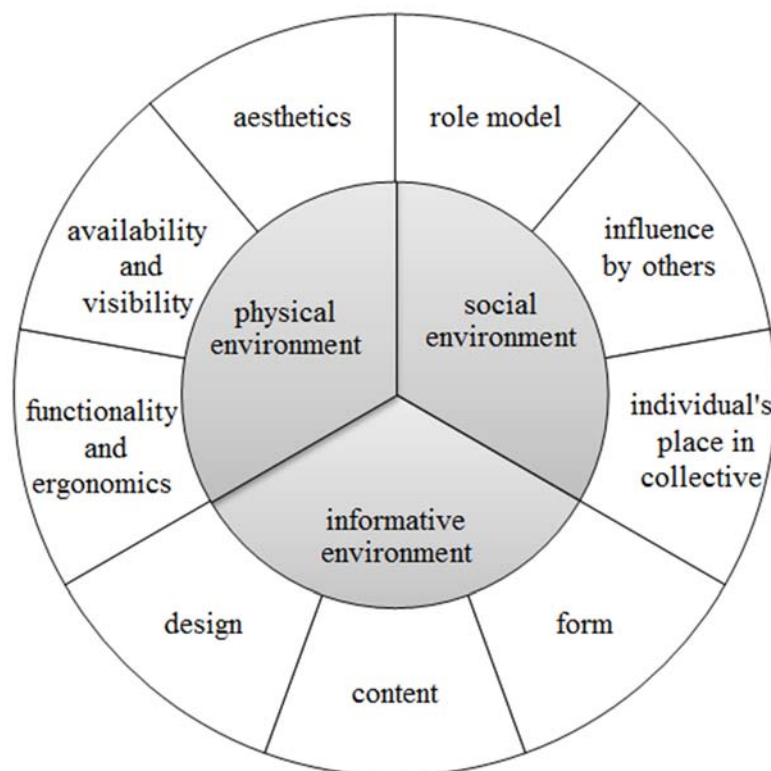


Figure 2. Visual indicators of physical, informative and social learning environment.

Physical environment (environment of objects) involves visual indicators: functionality and ergonomics; availability and visibility; aesthetics of physical environment. Functionality and ergonomics in teacher's visual creativity reflects as sense of learning environment subject and convenience, location, corresponding size, number, without excessive details, adjustability of necessary equipment to work. Elimination of excessive objects, taking into account factors of pollution, distraction of attention. For example, to make arrangement of desks in classroom adapting them to task – group works with desks put together, groups for exchanging ideas – chairs around the room. Availability and visibly in teacher's visual creativity is reflected as environment of objects, which does not lack material means that are necessary for developing, research and creative works. This is inventory for doing the task and elements of environment of objects, which helps, stimulates to developing activity and makes attitude to them and at the same time environment does not contain many excessive and disturbing objects and there is easy access to objects and clear system. For example, a dustbin can be bright and big, placed in visible and constant place, so that use of it would not require much time and energy, at the same time maintaining cleaner environment from excessive waste. Aesthetics of physical environment is reflected in general decoration of rooms and objects in interior (form, color, size, etc.), attraction and visual correspondence to subject (atmosphere) and their function. For example, it is not advisable to use visually old objects, if there is aim to rouse interest in pupils and to make them like a particular topic – new books, clean table cleaning cloths, etc.

Social environment includes visual indicators: role model, influence of others and individual's place in collective. Role model (example) is one of teacher's manifestations of visual creativity, example and presence, culture, experience, mutual relationship models, behavior, also mutual help, cooperation, conflicts, institutions and groups, what person indeed faces. Teacher influences also as a representative of profession, a standard of mentoring, gender education and other, an example, a creator of alternative and a conception of pattern. Visual looks (tidiness, choice of clothes and accessories and suitability, comfort, stereotypically) and behavior, makes impression and it is a professional example. For example, in the situation of learning environment, teacher demonstrates attitude of a responsible and educated person with looks, for example, with clean outfit, formal outfit in festive events. Influence of others in teachers' visual creativity is connected with the fact that pupils have high sensitivity of motivation towards social environment, therefore teacher, making conditions of visual environment, can stimulate

or distance mutual influence of pupils and attitude towards generally accepted norms and stereotypes. Teacher can influence this with different visual aids putting limits to tasks, arranging classroom, giving possibility to do work separately from others, planning contents of tasks and information, form, ergonomics, accessibility of resources and other, influence contact with other people and pupils, influence wish to act differently or similarly. For example, arranging chairs in classroom separately or putting them together, providing versatile accessible materials it is possible to reduce number of similar solutions of tasks and comparison of ideas with others. Individual's place in collective – pupil's social position and social functions (need for love, security, new recognition, responsibility, independence, transparency and connection and other), are influenced through different environmental visual conditions. Limits of tasks, arrangement of class interior, content of tasks and information, form, ergonomics, accessibility of resources and other influence pupil's social position, contact with others and mutual influence. In learning environment it is implemented, for example, influencing the use of auxiliary means in the task (for example, two pupils have one scissors, or pupils have to divide in teams so that each has a photo camera) facilitates pupils' mutual cooperation.

Informative environment (system of symbolic meanings) involves criteria of visual creativity: forms of information sources, content of information, design of visual information. Teachers' criterion of visual creativity - form of information sources includes inspiring, versatile (text, rhyme, picture, three dimensional models, map, board, video, photos, asociograms, posters, books, slogans, internet, presentations, magazines, through game, activity, riddle, etc.), logical and visual, containing information (temporarily or fixing and in what format). It can be manifested in learning environment, for example, in biology lesson; learning parts of flower, real flowers are used, which pupils have to divide into parts: stamens, pistil, petals, etc. Content of information sources in teachers' visual creativity are characterized as choice of posters, books, magazines, possibilities of internet use, video, three dimensional models and other content of information, versatility, conciseness, correspondence to age of auditory and level of knowledge, arousing interest, explaining, remaining in memory, entertaining, popularizing, alignment of picture and text, clarity and visibility. For example, in learning environment content of information has to be combined after marketing principles: an attracting picture, a succinct slogan, a title and key words etc. Design of information in teacher's visual creativity manifests as clear, logical, arousing interest, without disturbing details (defects, saturation), aesthetic, different (color, form, memory), alignment of text and picture of other types of information, composition of colors, forms, lines and rhythm and consistency of associations, use of signs, symbols, asociagrams. "Catch" of attention plays important role in learning environment – to arouse interest to look deeper, therefore in decoration there are important such principles surprise with color, form, text or, for example, exaggeration, enlargement, decrease, abstraction, simplification or combining necessary information with other branch, making provocative slogans, symbols and other.

Drawing on environmental visual indicators, it is possible to analyze, describe and organize teachers' visual creativity, adapting to each indicator new, original and valuable performance in one or several positions in pedagogical activity in certain environment (what in some conditions is new, this in other conditions can be every day practice). In teacher's creative manifestations can be used many strategies and programmes in performance of these indicators, which creativity is relative depending on specific environment, therefore analyzing or organizing creativity, it is important to look at indicators of learning in specific context and situation.

Conclusions

Communication type of 21st century, development of technology and fast lifestyle is determined as dominant visual communication type and many researchers stresses this era as transition from linguistic to visual – to the approach based on pictures. Organizing modern learning environment, where pupils reach achievements, teacher has to take into account such "visual generation's" peculiarities of perception as perception of color and form, conciseness, arousal of interest, shocking, versatility of forms, different marketing principles and other. Therefore, manifestations of teacher's creativity for conditions of specific environment. Learning environment determines 3-dimension environment mutual influence – social, physical and informative. According to components of environment dimensions,

there have to be adapted descriptive indicators of visual creativity, after which it is possible to analyze, plan and realize teacher's visual creativity in school.

Visual indicators describing physical environment: functionality and ergonomics, accessibility and visibility, aesthetics. Visual indicators describing informative environment: form, content, design. Visual indicators describing social environment: role model, influence of others, individual's place in collective.

Indicators of visual creativity obtained during the research describe the essence of teachers' visual creativity and reflects its manifestations and possibilities of use in each individual's work depending on certain environment, where it takes place.

Widened use of visual culture characteristics and principles in different branches point to necessity of more detailed and empirical research of visual conditions also in learning environment. Influence of visual creativity also stresses necessity for research of teachers' visual communication and knowledge of visuality in modern context.

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