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Original scientific paper

UDC: 159.937.516

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COLOURS IN THE FUNCTION OF MONITORING THE EMOTIONAL STABILITY WITH FOURTH GRADE STUDENTS

Abstract: The article describes the field of colours, which can have a strong effect on human body and our emotions. Even as children we use colours at home and at school. According to experts, the use of different colours reveals the child's emotional life. It is important to emphasize that the children's use and attitude towards colours changes through their development. In our study we studied the emotional stability of students, in terms of self-esteem and expectations for the future, expressed by colours. We were interested in the existence of differences in the relationship between the expression of emotions with colours and emotional stability, expressed in colours. We have found out that most students have conflicting tendencies in both areas, which means that thinking about it is slightly stressful to them.

Key words: colours, self-esteem, emotional stability, middle and late childhood, emotions.

INTRODUCTION

We face the light and the colours in thousands of shades every day, but we are sometimes still ill at ease when we should use them, or determine their compliance and opposability. It also happens that we ignore them and it is enough for us to notice only the shape of things, their weight and other qualitative and quantitative characteristics. However, the colours **obtain and play** a significant role from an early age in our lives. This happens between the second and third year of age "when the first completed forms occur within the child's artistic expression, which can begin to tie meanings on themselves and generate space for the use and role of colours. Artistic activity (and the perception of the world) from now on works with connection and dialogue with the world, and parts of it are colours" (Vrlič, 2001: 34). If we really want to understand the relationship

“human and colours”, we must be aware that colours have not only got physical characteristics, but they may have a strong physiological and psychological effects on us. A man can work in different colour settings quite differently, if he is aware of that and probably also believes in it. Also quite unconsciously, a particular colour can influence our body and raises different moods and emotional states, which are expressed outwardly.

EMOTIONS, EMOTIONAL STABILITY AND SELF-ESTEEM DEVELOPMENT IN CHILDHOOD

Emotions

When comparing different theoretical approaches (physiological, neurological, functional, cognitive and social theory), we see that they differ considerably. Nevertheless, we can conclude that emotions are a complex process involving diverse responses (cognitive, physiological, behavioural and expressive) that follow a certain sequence. People first detect a change in the outside world which we consciously or even unconsciously, cognitively evaluate. Then the physiological processing of information follows, thought process is triggered, which is followed by preparation for action and then the body's response - expressing feelings (Smrtnik Vitulič, 2004). Emotions can be divided into basic/simple and complex/composite. Simple emotions are first to occur (already with infants) and are non-compounded (Musek and Pečjak, 1997). They are also universal, as they occur in all cultures. The most important role of basic emotions is the adaptation of the organism to solve the basic problems of survival (Kompore et al, 2001). According to Plutchik (1955, 1980) there are eight of these emotions: joy, sadness, anger, fear, acceptance, rejection (disgust), expectation, surprise (Musek and Pečjak, 1997). To these eight, others (Izard, 1991) also add up: interest, shame and guilt, but exclude expectation. There are also other differences, as most authors (Harris, 1996) include shame and guilt among complex emotions, to which also belong pride, love, disappointment, contempt, shame, guilt, envy, "aesthetic emotion, patriotic feelings, religious feelings, "(ibid: 114). Complex emotions occur only after the second year of age and originally they are not important for survival, but they are social emotions, which play an important role in coexistence with others (Smrtnik Vitulič, 2004). They appear later in life and are largely dependent on the social and cultural influences. Complex emotions are formed by mixed together simple emotions. Plutchik (Table 1) distinguishes between positive and negative basic emotions, which are, according to him, the foundation of certain personality traits.

Table 1: Plutchik's theory of emotions (adapted from Musek and Pečjak, 1997: 114).

BASIC EMOTIONS	DEFINITION	PERSONAL CHARACTERISTIC
Joy (+)	Emotional perception of the convergence	Sociability, liveliness
Sadness (-)	Emotional perception of the loss	Depression, dejection
Anger (-)	Emotional perception of the obstacle	Aggression
Fear (-)	Emotional experience of the retreat	Carefulness, obedience
Acceptance (+)	Emotional perception of attractiveness	Flexibility
Rejection (-)	Emotional perception of reflectance	Opposition
Expectation (+)	Emotional experience of researching	Curiosity
Surprise (+)	Emotional experience of the new	Adventurism, uncontrolled behaviour

An individual experiences positive emotions when circumstances are favourable to reaching his goal, and negative, when he considers that the goals are at stake (Lazarus, 1991, summarized after Smrtnik Vitulić, 2004). Milivojević (1999) believes, that both, positive and negative, emotions are useful, because they prepare the individual for optimal response in important situations (ibid). Kompore and his colleagues indicate the distribution of emotions in relation to the activity and strength. To the active feelings they add up fear, anger, excitement, and to calming emotions pleasure, sadness, and depression. Regarding the intensity of emotions they describe emotions as strong and weak (Kompore et al, 2001).

Emotional stability

Expressing emotions is already seen by infants, and then during the further development emotional experience and expression is increasingly developed and enriched. If there is a normal emotional development, an emotionally mature person is developed (Musek and Pečjak, 2001). Emotional maturity includes compliance, regulation and a variety of emotions (Kompore et al, 2001):

- Compliance of emotions can be judged according to cultural emotional norms or with regard to their functionality in a given situation (emotionally mature person will not be happy at the funeral and will not break out angrily at each warning on an error).
- Regulation of emotions is seen as an emotional expression accompanied by an appropriate manner. We must first recognize our emotions and be aware of them, know how to express them in words and with behavior and according to the circumstances also manage them. Thus we are able

to decide when, for what purpose, with respect to whom and how we will express each emotion.

- The diversity or variety and complexity of emotion means the occurrence of emotions (positive and negative). Expression and perception depends on the situation. The culture, in which we live, can also have a significant impact on our emotions ("boys do not cry"). Complex and social emotions are also developed, among which empathy is the most important (the ability to become accustomed to new conditions). An emotionally mature person is able to detect, recognize and experience the feelings of others (Kompare et al, 2001; Musek and Pečjak, 2001).

Emotional maturity is associated with a positive experience of oneself and the surroundings, an ability to build deeper human relationships, an ease of contact and communication, with the diverse and creative thinking, stress management, etc. On the other hand, emotional immaturity is related with negative self-esteem, difficulties in building relationships with others and to deal with conflicts, stressors (Kompare et al, 2001). During late childhood children experience and express all the emotions as in previous periods of development (of an infant and toddler and in early childhood). We are talking about joy, anger, affection, anxiety, fear, curiosity, jealousy, etc. Emotional development during this period allows all children a better awareness, understanding and interpreting of their own emotions, but not entirely, because they do not influence them only consciously (Smrtnik Vitulić, 2003, summarized after Marjanovič Umek and Zupančič, 2009). They identify individual emotions from the external, visible signs and on the understanding of the psychological differences between individuals, which are not outwardly apparent (ibid).

Emotions and colours

Hormone (im)balance has a direct effect on our feelings and emotions, which is also affected by colours. Thus, each colour can provoke a specific emotional mood. Some colours soothe your mind, others encourage, provoke fear and anxiety. With the change of the emotional energy with colours, the relationship to the world and experiences, related to this also changes. Colours are related directly to the subconscious mind, which means that with them you can also find possible deep-rooted problems and heal them. It should be noted that feelings cannot be generalized to certain colours, because they are experienced completely subjectively. On the other hand, the subjective experiences match the scientific explanation of the psychological effects of colours. Trstenjak (1996) says that because of the physical and physiological effect of chromatic stimuli

in the human psyche, the perception of colours is strongly complemented or integrated with all other perceptions, which do not have any connection with colours. Trstenjak continues that it is precisely this integration, of colour-visual perception with other perceptions, in which we need to look for the basis for diverse psychological effects of colours. Once, interaction or integration of colour perceptions was called the emotional value of colours (Goethe, Wells). According to Trstenjak's opinion this is a good term, because "it proves the interaction of visual perceptions: a man so to speak blends the colour with the assistance of emotion with different experiences into a new experience and a new idea of the colour" (Trstenjak, 1996: 405).

Different authors (Kovačev, 1997; Huang, 2008; Frieling, 1968, Boyatzis and Varghese, 1993) have carried out many researches in this field. Thus, Huang, Boyatzis and Varghese evaluated the linking between colours and various emotional states with children aged 4 to 7 years in their studies. Certain parallels can be drawn between those studies, because the results of both studies showed that children chose bright, warm colours more often for positive emotions (those which they also like) and in the case of negative emotions, they chose cold and dark ones (the ones they do not like). Red appeared in both cases, which, given by its meaning, is understood. The authors also emphasize the importance of the experiences of children at the linking of colours with individual emotions. In our research (Duh, Kolar, 2011) we also found out that students associate positive emotions with both, warm and cool colours. Mostly the colours yellow, red, blue, purple and green stand out. Reasons for the choice are different. With negative emotions we can detect mostly the linkage with black, but also with cool colours (blue, violet) and white in greater proportion. Pink and blue are the ones which boys and girls like the most. According to the results we see that a particular linkage between black and negative emotions stands out, and, consequently, also probably its unpopularity among the students.

Self-esteem

When we talk about self-esteem, we see that the definition of self-esteem is complicated, because there is new information, concepts and results of empirical researches arriving continuously. For general understanding we state the definition of Kobal (2000). We can summarize that self-esteem is the whole of representations, views, features, attributes, opinions, values, beliefs, etc. that a person can perceive in himself. It is a combination of the conscious and the unconscious. It is one of the main areas of personality, which is being gradually formed from childhood on and changes and

evolves our entire life. It is an important part of the personality at every age and in every situation (Kobal, 2000). Musek and Pečjak (2001) write about the three "selves", and thus draw attention to the role of self-esteem in our lives. "Self-image is complex, since it covers both the conceptions and ideas about our appearance and body (physical self), conceptions and ideas of our mental and spiritual activity (spiritual self) and the concepts and ideas about how others see us and our relations with them (social self)" (ibid: 197). Lamovec (1994) separates the self-esteem and self-concept and states that self-esteem is the preliminary stage of development of self-concept, which is "a cognitive structure. It consists of what we think we are, what we would want to be (ideal self) and what we assume that others think of us" (Lamovec, 1994: 16). She also writes that self-esteem is more than the concept itself, it is an adventurous, corporate image and it works on the representational level. A large part of it is the body image (physical sensations and assessment of our own body) or the physical characteristics that children up to adolescence, most commonly use when they describe themselves (they do not understand the expressions of psychological characteristics yet) (ibid).

Self-esteem development in childhood

The self-esteem development in preschool goes through four stages: (1) the use of their own name (at two years of age), (2) increased independence (at three years), (3) extension of the idea of self-concept (at four years) and (4) verbalization of feelings about themselves (from the fifth to sixth year) (Horvat and Magajna, 1989). During this period, children develop self-esteem, "a cognitive structure which is typical for adults and includes both positive and negative judgments about their own bodies and the characteristics of their personalities" (ibid: 179). With so formed self-esteem children enter the school, where they take on a new, by then unknown role to them (the role of the pupil). This is strongly related to children's perception of themselves (Kobal, 2000). Further development of self-esteem is dependent on many factors – performance at school, relationships with peers and teachers, motivation, etc. At the same time self-esteem becomes more and more structured by entering into new situations and social roles and the development of cognitive and language skills (ibid). Already in the early years of schooling children produce a fairly stable picture of themselves and assessment of their own characteristics. Among them we can find those with positive self-esteem and those with a negative one, which means that some have a good image of themselves, their capabilities and high self-esteem, while others feel just the opposite. Horvat and Magajna (1989) write that child's self-esteem is the one that will influence the selection of his activities and will determine how long he

will persist in them. Even his relationship with peers and adults will depend on his self-esteem (Horvat and Magajna, 1989).

(Learning) self-esteem and learning achievement

The relationship between success at school, and by that we mean good marks, and self-esteem is complicated. According to Horvat and Magajna (1989) both occurrences have an effect on one another. Child already enters school with some self-esteem, which was designed on former experiences, which means that the child's self-esteem at the entrance of school can be good (positive) or bad (negative). The child's self-esteem may worsen if the child gets lower marks, if he perceives negative attitude of teachers, fellow students and even parents. The authors relate to the results of studies that have found negative self-image with very intelligent, but unsuccessful boys. Precisely this worse picture of themselves influenced their failure in dealing with school problems. On the other hand, we also have students who are successful and effective, popular among their peers and teachers, but have poor self-esteem. Interestingly, this does not affect their work. They just lay the blame for all their faults to themselves. We have also children with a more complicated self-esteem. They set (too) high aims that they do not reach. Then they feel unsuccessful, but their achievements in the opinion of their peers, parents and teachers are fairly good (Horvat and Magajna, 1989). M. Tomori (2002) writes about school inefficiency and believes that school performance strongly undermines individuals' holistic personal development. Detrimental gaps can be revealed in the course of personality formation, while the child may increase the acceptability of other threatening affects. School failure is more common with children who are already less flexible, have problems with organization, are impulsive and restless, the introverted, emotionally vulnerable children, as well as with those, in comparison with their peers, who are markedly different because of their physical deficits, social environment, children who do not speak the language, etc. (Tomori, 2002).

M. Jurišević (1999a) summarizes the results of studies examining the relationship between self-esteem and learning achievement. Author finds that both constructs are connected, but the correlation between them is low to moderate. She also writes that self-esteem is one of the important factors of learning achievement (as an example, she provides a model, adapted from James et al, 1991), but warns that it is necessary to realize that it is neither the only nor the most important factor. Schunk (1990) thinks that learning performance (shown by the school assessment) is the one that affects the students' self-esteem, namely in two ways: directly

and indirectly through social comparisons of children with their classmates (Pečjak and Košir, 2002). Marsh (1990, 1993) and his colleagues examined the learning self-esteem, which is part of an overall self-image (next to non-learning) and it represents self-esteem in areas of learning fields at school. Also Shavelson (1976, 1985, 1988), Hübner (1976) and Byrne (1988) alone or with common empirical research examined learning self-esteem. The authors are not uniform if self-esteem affects on the learning achievement or inversely (Pečjak and Kosir, 2002; Juriševič, 1999a, 1999b). Juriševič (1999a and 1999b) instead of learning self-esteem uses the term learning self-esteem and indicates that there is a perception of our own teaching competence. This includes individual components that represent student's knowledge about himself on individual learning fields (including the descriptive component and the component of value), which is formed by him. The author states the survey findings of Chapman and Tunmer (1997), which suppose that the relationship between teaching self-esteem and learning achievement should be understood considering the conditionality of development (Juriševič, 1999a).

School marks are the product of learning achievement and most researches in the process of examining the relationship between academic achievement and academic self-esteem are built on them. Marsh and Yeung (1997) suggest on the basis of their research that more attention should be paid to the importance of process variables such as motivation for school work, function of learning styles, classroom climate, etc. (ibid). An increasing number of authors (eg, Chapman, Lambourn and Silva, 1990, Meece, Wigfield and Eccles, 1990; Marsh, 1990; Helmke and van Aken, 1995, summarized after Juriševič, 1999b) agrees with the concept of a reciprocal relationship between self-esteem and learning performance that Stankovic (1986, summarized after ibid) calls the Matthew effect. This explains that successful students will become more and more successful and on the other hand, less successful students will eventually become less and less effective (ibid).

METHODOLOGY OF EMPIRICAL RESEARCH

Research purpose refers to emotional stability of students, in terms of self-esteem and expectations for the future, expressed by colours and the existence of differences in the relationship between the expression of emotions with colours and emotional stability, expressed by colours. We were interested in emotional stability of students in terms of self-esteem and expectations for the future. The attention has also been paid to the relation between self-esteem and conflicting tendencies. There is another

question in the same context: do students have positive or negative self-esteem and to what an extent self-esteem can influence the choice of school activities and relationships with peers. In the research on positive emotions of students expressed by warm colours in the sense of self-esteem and expectations for the future, it is significant to deal with the issue of existence of differences in regard to emotional stability of students. All this has been observed from the angle of expressing emotions by cold or neutral colours in terms of self-esteem and expectations for the future. Within the research subject there is also a question of emotional stability, expressed by colours, as a factor of differences between students. **The research problem** refers to the question: are there any differences between expressing emotions with colours and emotional stability of students. The answer to the question would validate the findings of some previous research that have shown that it is difficult to explain why students choose certain colour to express an emotion, as well as the claims advocating the significance of the experience students have with certain colours and their association with positive or negative emotions, subjective aesthetic judgement for the change of attitude, i.e. inclination towards a colour, subjective experience, etc. In order to explicate the problem it could be said that associations are determined by multiple relations colours appear in. A standpoint has been accepted that the preferences of children when colours are in question, as well as their conscious use in artistic expression provide a teacher with an insight into student's attitude towards colours. Primarily visual tasks with fantastic motifs and a free choice of colours can be good indicators of personal preferences for colour and related feelings of children. Validation of the claims is to a degree in an answer to the question permeating the research.

Purpose and hypotheses: The research dealt with the emotional stability of students, in the sense of self-esteem and expectations for the future, expressed by colours. We were interested in whether there is a difference between expression of emotions through colours and emotional stability, expressed by colours. The basic assumption refers to the following expectations: In student expression of positive emotions using warm colours in the sense of self-esteem and expectations for the future there is statistically significant difference in relation to emotional stability of students, which is also expected in the case of expression of negative emotions using cold or neutral colours in terms of self-esteem and expectations for the future. In other words, there is statistically relevant difference in emotional stability, expressed by colours.

Method: Descriptive and non-experimental method of empirical pedagogical research as a primary research method was used in the research. **Sample:** The survey is based on a sample of 323 fourth grade students (school year 2010/2011). A sample is defined at the level of use of inferential statistics as a simple random sample from a hypothetical population.

Procedures for collecting and processing data

Data were collected during the school year 2010/11. Students were tested with the assumed Lüscher's test (Lüscher, 1989). Solving the test was done individually and unguided. All the students were given a uniform unambiguous instruction and identical instrument.

Lüscher's test consists of eight coloured cards (four hues of yellow in terms of expectations for the future, and four hues of green for the analysis of self-esteem). Students were required to sort the coloured cards on a white background from the one, which they prefer most to that which they like the least (from left to right). In doing so, they first classified the green coloured cards and then yellow ones. After classification, coloured cards were turned to the back side where there were written the numbers from 1 to 4. Lüscher (1989) in his work describes the importance of the individual order of coloured cards in terms of self-esteem and expectations for the future (typical characteristics). At the same time the order of coloured cards also reveals if students are stressed out and prone to conflict situation, which is reflected in the absence or presence of a star (*). The absence of stars means the emotional stability (no confrontational tendencies), one star (*) indicates a tendency to conflict, two and three stars (**, ***) reveal a conflict personality.

RESULTS AND THEIR INTERPRETATION

Below we present the results of tests, with which we studied the relationship between the expression of emotions with colours and emotional stability, expressed of colours.

Emotional stability of students

Table 2: Number (*f*) and in percentage (*f*%) of students according to their emotional stability (conflict-prone), in terms of their self-esteem and expectations for the future.

Rates of emotional stability	Self-esteem		Expectations for the future	
	f	f %	f	f %
no confrontational tendencies / emotional stability	140	43.3	121	37.5

tendency to conflict (*)	167	51.7	164	50.8
conflict personality (**, ***)	16	4.9	38	11.8
Total	323	100.0	323	100.0

(Rates of emotional stability: absence of * - the emotional stability (no confrontational tendencies), one star (*) - a tendency to conflict, two and three stars (**, ***) – a conflict personality).

The table (Table 2) shows that in the case of self-esteem more than half of students have a tendency to conflict or a slightly worse image of themselves. Thus, thinking of themselves or the idea about themselves is a burden for most students. Nearly 44 percent of students are not bothered with their self-esteem or they have a favourable opinion of themselves. In the sample we have the least students who show a conflict personality, which is a very positive finding. More than half of the students' has a tendency to conflict in case of expectations for the future; at the same time thinking about it makes a slightly stressful burden for the students. 37.5 percent of students are emotionally stable and consequently they have no conflict preferences or some psychological burden. Only about 12 percent of students are quite bothered. It is good that conflict personalities are present in the lowest percentage.

In summary, we find that students' thinking about the future is a much bigger burden for them than their self-esteem. Nearly 12 percent of the students are prone to conflict in terms of expectations for the future, while in terms of self-esteem there are only a mere 5 percent of them. Consequently, there are more students who are not burdened with their self-esteem than those who view pessimistically on the future.

The most common characteristics of students in terms self-esteem and expectations for the future

We are introducing the most common characteristics of students in terms of self-esteem and expectations for the future. The percentages of students by individual characteristics are taken from Table 3; described characteristics are summarized from Lüscher (1989) and depend on the classification of coloured cards (green and yellow hues) by the students. Present or absent * indicates whether students are stressed out and prone to conflict or this was not detected with students.

Table 3: Numbers (*f*) and in percentage (*f*%) of students according to the classification of coloured cards in terms of self-esteem and expectations for the future.

Classification of coloured cards	Self-esteem (green hues)		Expectations for the future (yellow hues)	
	f	f %	f	f %
1234	2	0.6	1	0.3

1243	1	0.3	2	0.6
1324	2	0.6	3	0.9
1342	2	0.6	7	2.2
1423	0	0.0	0	0.0
1432	1	0.3	3	0.9
2134	2	0.6	2	0.6
2143	2	0.6	1	0.3
2314	10	3.1	7	2.2
2341	9	0.8	5	1.5
2413	2	0.6	4	1.2
2431	13	4.0	6	1.9
3124	3	0.9	11	3.4
3142	3	0.9	33	10.2
3214	5	1.5	2	0.6
3241	11	3.4	1	0.3
3412	11	3.4	53	16.4
3421	12	3.7	10	3.1
4123	4	1.2	2	0.6
4132	30	9.3	14	4.3
4213	6	1.9	8	2.5
4231	38	11.8	12	3.7
4312	47	14.6	123	38.1
4321	108	33.4	13	4.0
Total	323	100.0	323	100.0

Self-esteem

The descriptions given below show the image that students have about themselves and also the desire to be what they want.

We can say about a third (33.4%) of the students:

"The person believes that in the conflicting situation, the preconditions for a satisfactory comfort do not exist. He does not want to come to terms with the unfortunate situation of a compromise, but he also does not know how to solve burdensome problems. Therefore, he wants to remove this excitingly and claustrophobic tension. He is looking for opportunities to change the relationship and thus to liberate the burdensome pressure. Expectantly he is interested in stimulating contacts, because new opportunities are the preconditions to look for the simplest solution."*

It is typical for 14.6 percent of the students:

"A person thinks that other people do not respect the freely expressed wishes and opinions. He wants to push problems to the side so that he would not be burdened by internal tension. He is expectantly open and highly interested in the relationships that do not cause burden and stimulating contacts. "

With almost 12 percent (11.8%) of the students we can follow these conclusions:

"The person believes that situations and their own demands do not allow him to be lenient to the unsatisfactory conditions. He wants to be a profiled personality. He requires that others appropriately respect special review and enforcement. This brings personal problems. He wants to push internal tension aside and distract himself. He is interested in relationships that are not burdensome and stimulating contacts, because the new links are per appearance the simplest solution."

Characteristics below can be attributed to the 9.3 percent of students:

"A person is looking for means and ways to be distracted by specific, unresolved personal problems. He wants to push the internal tension to the side, that it would not be confined. He is greatly interested in the new relations that do not cause burden, and charming stimulating contacts."*

In terms of self-esteem and also the desire of what students actually want to be, in about one third of students is observed a feeling of some kind of pressure that they are burdened by. Therefore, they are looking at ways to get rid of stress and they see the solution in incentive and new opportunities. For these students conflict tendency is also distinctive. Nearly 15 percent of students are burdened with the thought that other people will not approve desires and the views that students would freely express. Otherwise, they are open and want to eliminate internal tension. The latter is also typical for the slightly lower percentage of students who are interested in the new relaxed relationships and external stimulations, which should represent the solution to the problem. Tendency to conflict can be detected also at just fewer than 10 percent of students who have unsolved personal problems and feel the inner tension. Also these students are interested in new contacts and relationships that do not cause burden and stress. We can see that the majority of students are under stress and they give important role to the other peoples' opinion. The latter is also one of the many factors that can influence the self-esteem development in childhood (Kobal, 2000). It is hard to say whether the students have positive or negative self-esteem, but it can be claimed that self-esteem can also affect the selection of activities at school and in relationships with peers and adults (Magajna and Horvat, 1989).

Expectations for the future

The findings below reveal the expectations that students have for the future.

The largest percentage (38.1%) of the students encountered the following characteristics:

"A person would prefer to escape from the current, unfavourable situation. He hopes that he will find the desired, liberating solution under new, and better prerequisites. After resolving the vulnerability, he wants to develop new relationships and possible experiences."*

For more than 16 percent (16.4%) of students we found out:

"A person is very interested in and open for what should happen now and in the future. He can be very excited about interesting people, especially when they contribute to the development of his fields of interest. He likes discovering new perspectives and diverse experiences and enjoys them. "

10.2 percent of students can be attributed to the following:

"A person works with fellow man and the environment with an interest and openly. He lives in the present and is free of distance and distrust, open and able to be enthusiastic. He is also capable of immediate warm contact. He is open, has an unbiased attitude and is immediately ready for collaboration. He is looking forward to having pleasant experiences and enjoys sensuality."

It can be summarized from the above explanations in the first place, that over 38 percent of the students has conflicting tendencies (from about half of the students, see Table 2) and high expectations for the future. They want to improve the current unfavourable situation and relationships. For more than 16 percent of students it is typical that they are very open and interested in meeting new, interesting people and also in discovering new experiences. Well over 10 percent of students can be attributed to the openness and interest in the environment. The future does not cause a psychological burden for them, they live in the present and are enthusiastic of new challenges.

Emotional stability as a factor in the choice of colours

We present the results of the examination of differences in the selection of hot and cool or neutral colours for positive and negative emotions, depending on the rate of emotional stability or a conflict personality, in terms of self-esteem and expectations for the future.

Table 4: Analysis of variance in examining differences in the expression of positive and negative emotions in relation to students' emotional stability, expressed in colours, in terms of self-esteem.

CRITERION	FACTOR	n	x	s	Test of Homogeneity of Variances		Examination of the difference of arithmetic means	
					F	α=P	F	α=P
Number of warm colours at positive emotions	no confrontational tendencies	140	2.550	0.970	2.634	0.073	0.164	0.849
	tendency to conflict (*)	167	2.491	0.904				
	conflict personality (**, ***)	16	2.563	1.209				
Number of cool/neutral colours at cold colours	no confrontational tendencies / emotional stability	140	3.300	0.686	0.671	0.512	0.058	0.943
	tendency to conflict (*)	167	3.275	0.709				
	conflict personality (**, ***)	16	3.313	0.602				

The assumption of homogeneity of variances (Levene's-test) is justified in both cases. Examination of the difference of arithmetic means has further shown that in the case of emotional stability in self-esteem there are no statistically significant differences in both positive emotions ($\alpha = P = 0.849$) as well as negative ones ($\alpha = P = 0.943$). According to the results we can say that emotional stability, expressed in colours, in terms of self-esteem is not a factor that would cause a statistically significant difference. It should be noted that this is a continuous ordinal variable in which, looking qualitative, the differences between categories are not unambiguous, they move from one to another.

Table 5: Analysis of variance in examining differences in the expression of positive and negative emotions in relation to emotional stability of the students, expressed in colours, in terms of expectations for the future.

CRITERION	FACTOR	n	x	s	Test of Homogeneity of Variances		Examination of the difference of arithmetic means	
					F	α=P	F	α=P
Number of warm colours at positive emotions	no confrontational tendencies	121	2.455	0.957	1.449	0.236	0.870	0.420
	tendency to conflict (*)	164	2.531	0.910				
	conflict personality (**, ***)	38	2.684	1.068				

Number of cool/neutral colours at cold colours	no confrontational tendencies	140	3.306	0.693	0.048	0.953	1.102	0.334
	tendency to conflict (*)	167	3.311	0.679				
	conflict personality (**, ***)	16	3.132	0.741				

The assumption of homogeneity of variances (Levene's-test) is in both cases justified. Examination of the difference of arithmetic means has further shown that in the case of emotional stability, in terms of expectations for the future there are no statistically significant differences in both positive emotions ($\alpha=P=0.420$) as well as negative ones ($\alpha=P=0.334$). According to the results we can say that emotional stability, expressed in colours, in terms of expectations for the future is not a factor that would cause a statistically significant difference. It should be noted that also in this case this is a continuous ordinal variable.

Conclusion

In examining the emotional stability of students, in terms of self-esteem and expectations for the future, we found out that the majority of students in the sample have in both terms a conflicting tendency, at the same time thinking about this represents a slightly stressful burden to them. According to theoretical explanations of typical characteristics we found out that students have high expectations for the future and they also want to improve the present unfavourable situation and relationships. In terms of self-esteem a good third of students feel significant pressure which is a burden for them and they also have a conflict tendency. Students want to get rid of this tension and the important role is attributed to other people, who are on one hand causing discomfort, but on the other one they can be used to solve this tense situation. It is hard to say whether the students have positive or negative self-esteem, but it can be claimed that self-esteem can affect the selection of activities at school and in relationships with peers and adults. In the expression of positive emotions with warm colours in terms of self-esteem and expectations for the future of the students a statistically significant difference did not appear regardless of the emotional stability of students. Also at expressing negative emotions with cool or neutral colours in terms of self-esteem and expectations for the future, we came to the same conclusions. This means that emotional stability, expressed in colours, in both terms is not a factor that would cause a statistically significant difference.

Some previous research (eg, Duh, Kolar, 2011) showed that thinking about feelings is difficult and abstract for the students. It was hard to explain why they chose a certain colour for a particular emotion. However, we cannot overlook the fact that the integration of colours with negative or positive emotions also depends on the experience that students have with a particular colour. Change of preferences of each colour is derived also from the application of subjective aesthetic judgment. Subjective experience or association with individual colours will determine whether this same colour will be evaluated positively or negatively.

"Associations are determined by meaningful connections, in which each colour appears. Therefore, we cannot separate the effect of colour from this semantic link." (Schuster, 2000: 46). Understanding the preferences of children of colours and their conscious use at artistic expression gives teachers an insight into students' attitude towards colours. Primarily visual tasks with fantastic motifs and a free choice of colours can be good indicators of personal preferences for colour and related feelings of children and adolescents.

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Matjaz Duh, born August 5 1957, has a Ph.D. in art pedagogy and is an assistant professor of art pedagogy at the University of Maribor. He is an active researcher at the Faculty of Pedagogy, and a member of InSEA (International Society for Education Through Art), where he actively participates in the congresses. He is also the author of several books and textbooks. For the last few years he has been actively researching the use of contemporary media in art education, the development of art appreciation, problems of the ongoing paradigm inside art education, the development of artistic expression and other similar work.