

# The Influence of the Social Environment on the Creative Activities of Secondary School Students

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## Abstract

This paper focuses on the motivation of secondary school students to take part in (professional) creative activities and the influence their environment, both the school and family environment, has on this. This study is a response to the growing neoliberal trend to excessively individualize creative expression and activities and to entirely ignore social influences. At the same time, it takes into account the cultural heritage of the preceding generations, in which the roots of creative ability are anchored in society, and which individuals then process. Results are presented of empirical research into the influence of the social environment on the creative activities of the youth, which are subsequently correlated in order to determine the roots and social interdependence of creative activities. The results of the research confirmed the initial hypothesis that the creative efforts of secondary school students are based on the social background of their families and the schools they attend. At the same time, it was determined that the direct influence of family is not as substantial as expected, and that the indirect impact of the family environment is more significant.

**Key words:** Social pedagogy, creativity, social creativity, influence of the environment, influence of the macro-social and micro-social environment, correlation of the social environment and creativeness, professional and scientific creative activity of the youth.

## Introduction

From social education practice, it is known that the influence of the environment, especially of the family and school environment, on the development and formation of

creativity<sup>1</sup> is very strong. Unfortunately, the intensity of the research in this sphere still does not correspond to its formative significance. Even though current findings, based on experience, are not questioned by anybody, many of them are based on the belle-lettres (for example, the influence of family on the genius Mozart, Beethoven, Michelangelo Buonarroti, and others) and on the works of generally respected educators rather than on real research and theoretically generalized experiences. This is all the more surprising because the question of the correlation between creativity and the environment is one of the principal problems of social creativity. However, when benchmarking social creativity on a worldwide level, it is less developed than individual creativity and the cognitive elements of creativity (Semrád 1998, 2009).

The lack of research into the influence of the environment on the development and application of creativity was already pointed out by researchers such as C.W. Taylor and F. Barron (1963, 1964, 1972), who put forward the first theories of creativity, as well as J. Hlavsa (1981, 1986) from the Czech Republic, and more recently by K.J. Szmidt (2001). The absence of systematic research into this issue has resulted in many myths and unfounded contentions, which have led to its overestimation and consequently to ill-considered steps in the upbringing and education of young people.

Attempts to define creativity have always been confronted by principle, theoretical and methodological problems. The reason for this is that creativity is a complicated phenomenon, which is characterized by a number of factors that are often conflicting. For example, from the viewpoint of the social aspects of creative activity, it requires infringement of the existing social standards and conventions, but only to the limits that society is able and willing to tolerate at the given time. The issue of creativity, as a subject of scientific research, is also developing over the course of time. Taking the theory of creativity out of the narrow psychological framework, as suggested by E. Necka (1995), enables creativity to be interpreted in a new way, which in turn requires existing knowledge to be reinterpreted too. The interpretation of creativity from the viewpoint of individual psychical processes, attaches less importance to the influence of the environment as it deserves. On the other hand, socially and politically oriented interpretations could overestimate the influence of the social environment.

It is for these reasons that attention is paid in this paper to the influence of the environment on the motivation of secondary school students to participate in Student Professional Activities (SOČ)<sup>2</sup>. The assumption was made that in today's society, which

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<sup>1</sup> Creativity is defined in this paper in line with J. Hlavsa, et al. (1981) as a manifestation of activities topped with something new, novel, socially acceptable, which for child and youth creativity is usually subjective. In agreement with A. Christie (1999/1987), the authors believe that "Creative desire can manifest itself in any way: embroidery, cooking interesting meals, painting, drawing, modelling and composing, as well as writing books and stories. The only difference is that some of these things are more uplifting for us than others."

<sup>2</sup> Student Professional Activities (SOČ) is a competition held under the auspices of the Ministry of Education (MŠMT). It is one of the most important activities for supporting the professional (scientific) creative activities of secondary school students. It covers all spheres of human knowledge, including the natural, technical and social sciences, as well as humanities. The participants select their own theme for their professional work and process it by means of professional scientific work. The participants present their final work within the framework of a public defence thereof in front of professional juries in school, district, regional and national

is viewed as socially and economically complicated, and in which the family has undergone considerable change (Kraus 2008, 2001, 2015), the influence of the micro-social environment, especially the family environment and to a lesser extent the school environment, is not as intensive as many experts suppose.

### **The objective of this paper**

The objective of this paper is to present the results of empirical research into the influence of the social environment on the creative activity of youth, as represented by the SOČ competition, and relate it to current knowledge on the interrelationship that exists between them.

From various research investigations and monographs on creativity it is known that the quality and the way in which a society functions, i.e. the macro-environment, is one of the most influential means for facilitating the creativity of both individuals and social groups. Some studies suggest (Szobiová 1998) that much more attention is paid to the issue of the macro-social quality of life and its influence on development and the use of creativity than to the influence on the micro-social level, i.e. the nearest social environment. This is usually justified by the fact that in advanced countries this is an accepted characteristic of society.

Nevertheless, the question remains, whether the so-called advanced countries, which have many problems in the socio-economic sphere, have the economic resources at their disposal to implement proposals to counter this. According to the research conducted for this article, the problem is more complicated than it would at first appear. This is confirmed by the fact that the Student Professional Activities (SOČ) competition, Česká hlava (Czech Head), České hlavičky (Young Czech Heads), as well as a variety of music competitions, including international ones, which are organized, for example, within the framework of the Prague Spring festival, have been organized in the Czech Republic for a number of years. The progress achieved over the last twenty years is illustrated by the fact that the majority of these competitions are now also open to amateurs; entry is not restricted to those with a professional education, as was the case in the past. However, the main problem lies elsewhere. For example, I. Hurník (Sak 2011) suggests that, although we have a talented pool of children and youth, who are helped to develop through systematic education and an individual approach, very little is done to support them in the following phase to find worthwhile fulfilment.

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competition rounds. The works of the most successful authors are sent to prestigious international competitions (INTEL, ISEF in USA, EU Contest in Europe and elsewhere), where they regularly take prominent places. The activities undertaken by SOČ can be compared to those in some of the most advanced countries in the world. The quality of some of the works can be compared with that required for a university qualification.

## Research methodology

Domestic and foreign literature were referenced for the analysis of the state of knowledge of the issue under scrutiny. In addition, empirical research was conducted. This involved explorative methods, a questionnaire survey and moderated discussions. The respondents were the participants of the Student Professional Activities (SOČ), in particular those participating in the national round of the competition, i.e. those who were already familiar with and had the necessary experience of the process of selecting, processing and defending a professional theme. The research was carried out on the assumption that social influences on a student's decision to take part in the SOČ competition is negligible. The research was conducted in 2010. Research being referred to took place in previous years. Repeated research in 2016 confirmed the cited results. It is confirmed as unchanged importance for today and the results are the basis for monitoring in the future.

In total, 177 secondary school students from all regions of the Czech Republic participated in the study (of which 123 students took part in the natural sciences and technical branches of the competition, and 54 students in the social sciences and humanities branches). The majority of the respondents were between 18 and 19 years old (rounded average age: 18.7 years). It is not surprising that only more mature students, with a higher degree of experience in the sphere of study and the use of professional knowledge and skills, advanced to the top round of the competition.

With regards to the duration of the respondents' study at secondary school, the majority were third and fourth year students (expressed as an average: 3.4 years - adjusted for the four year duration of the secondary education accordingly).

With regards to gender, 61% of all the respondents were male and 39% female. Within the natural sciences and technical branches men formed the largest group (72%), with 28% female. Within the social sciences and humanities branches women formed the largest group (63%), with 37% male (see Table 1).

*Table 1: Composition of the respondents*

Composition of the respondents	In total		Of which			
			Natural sciences & technical branches		Social sciences & humanities branches	
All respondents	177	100%	123	69%	54	31%
Men	108	61 %	88	72 %	20	37 %
Women	69	39 %	35	28 %	34	63 %
Average age	18.7		18.7		18.6	

*Source: Authors*

In order to present a complete picture of the respondents, the types of schools the respondents attended was also monitored. The majority of respondents attended gymnasiums (grammar schools) over secondary technical schools (0.52:0.47). In the

case of the natural sciences and technical branches, the division between gymnasiums (grammar schools) and secondary technical schools with a graduation examination was 1:1. This was not the case for the social sciences and humanities (0.57:0.41) (see Table 2). The table does not contain the full number of respondents. The reason for this is that not everyone responded to the question. This is also the case in other tables due to the fact that multiple responses were possible.

*Table 2: Types of schools respondents attended*

Type of school respondents attended	Of which					
	Natural sciences & technical branches			Social sciences & humanities branches		
Gymnasium (grammar school)	92	52 %	61	50 %	31	57 %
Secondary professional school	84	47 %	62	50 %	22	41 %

*Source: Authors*

## **The results of the discussion**

Our research shows that macro-social influences are more often anchored at the declarative level. This is even the case where efforts are made, for example by the Ministry of Education (MŠMT), to involve those education institutions supporting the development of talented youth into the evaluation criteria (e.g. the Excellence programme started by the Ministry of Education in 2011<sup>3</sup>).

On the basis of different concepts and various sources of materials, it is evident that there are active efforts in the decision-making sphere to assist society in becoming creative. However, in reality this is lacking in many educational and cultural institutions. Mass media exposure does not directly contribute to the stimulation of creativity. The contrary is true, the majority of the time the level of exposure only evokes a passive response from listeners and viewers; very few are stimulated to activity and creativity, and act accordingly.

In general, the politicians responsible for education are increasing their efforts to stimulate the creativity of teachers, as well as students, and in the future the broader population. These efforts are based on the principle of school (curriculum) reform, whereby it is possible to monitor (new) trends for supporting creativity and activities designed to develop a person's abilities (endowment and talent). In practice this involves the implementation of "framework education programmes" for different types of education and its transformation into school education programmes.

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<sup>3</sup> The basic objective of the programme is to increase and extend the quality of the support for talented students at secondary schools who are able to achieve excellent results ("Evaluation of students and schools pursuant to the competition results in 2011 – Excellence of secondary schools 2011, ref. number 20 036/2011-51" a pilot development programme aimed at improving the quality of education of talented students at secondary schools, with a view to markedly improving the financial recognition of school teachers on the basis of the results of students participating in competitions and exhibitions).

Unfortunately, the best intentions are not always realised. It is apparent that the success of such measures is very dependent on, for example, personnel, socio-economic circumstances, local conditions and the situation in the respective school. Teachers, for example, highlight the dissolution of the state-owned organization Komenium, which was responsible for the production of teaching aids. They must now source teaching aids elsewhere, unsure of whether the sellers are reputable and qualified to do so, which puts them at risk of purchasing unsatisfactory aids. Teachers also quite often have to create their own teaching aids, which leaves them with little energy to develop creativity within the education process itself (notwithstanding the professional, technical and technological level at the present stage of technological developments). On occasion, they must also search for aids in complicated catalogues in an effort to combine products that are not completely compatible, and of which the price is often beyond the reach of the school.

Officially, schools also have an unequivocal duty to support talented young people. This requirement is clearly not being fulfilled by all schools. The numbers of students in classes simply prevents the application of an individual approach to students and educational pre-concepts. There are many more examples like this. Nevertheless, the generally held view is that the influences at the macro-social level create the conditions for the "prepared ones" i.e. for those individuals and social groups that would be creative anyway, irrespective of the specific conditions at the time. Unfortunately, these individuals and groups form a very small section of society. It would therefore be in the interest of the development and perfection of society to encourage and support these individuals and social groups to become creative, even if they are not yet "ready" for it, but potentially could be according to certain characteristics they possess. This issue also relates to the stimulating effect the environment in which these people live has on them.

Within the aforementioned context, the macro-social level of society can either be favourable for the stimulation and development of creativity, or unfavourable by throwing up social barriers to it. In general, even though society may be open to creativity, the climate of creativity that certain individuals and social groups require may not yet have been created. For example, the appreciation of only some types of creative individuals (sportsmen, politicians, authors of popular music, etc.) is a consequence of general imperfections in the social conditions within a society.

The influences arising from the micro-social environment are even more unambiguous. Our research shows that the impulse for professional creative activity comes mainly from the school environment (see Table 3). In contrast, the role of family in this process is very limited. The principal role of teachers in motivating the students to take part in the SOČ competition was, as expected, significant and beyond all expectations. The respondents praised the professionalism of their teachers; they looked up to them as role models.

There is another significant qualitative dimension to the influence teachers have on initiating student interest in creative activities. The data presented in Tables 3 and 4

unambiguously show the dominant role secondary school teachers have in initiating a student's primary impulse to engage in such scientific work. However, the data also shows that the teachers left sufficient space for the students to make individual decisions on the selection and processing of their professional theme. In other words, the teachers acted as a facilitator and assistant in the cultivation of thoughts, ideas and conceptual approaches.

*Table 3: Source of the impulse to undertake professional creative activities*

Source of the impulse to undertake professional creative activities	In total		Of which			
			Natural sciences & technical branches		Social sciences & humanities branches	
teacher	154	87 %	104	85 %	50	93 %
classmates	16	9 %	12	10 %	4	7 %
Internet	3	2 %	3	2 %	0	0 %
elsewhere	16	9 %	13	11 %	3	6 %

*Source: Authors*

*Table 4: Identification of the person who determined the theme of the professional activity*

Person who determined theme of professional activity	In total		Of which			
			Natural sciences & technical branches		Social sciences & humanities branches	
respondent themselves	136	77 %	88	72 %	48	89 %
teacher	25	14 %	20	16 %	5	9 %
somebody outside the school	19	11 %	18	15 %	1	2 %

*Source: Authors*

The next part of the study showed that family also has a role to play in influencing the future creativity of secondary school students. This is expressed in terms of the inspiration they give with regards to the future choice of profession (parents, grandparents, and in part siblings) and the type of secondary school education, as well as in terms of serving as a role model through the performance of their own profession. The influence of family is particularly intense around the decision-making processes concerning the type of education (Střelec 1996). Nevertheless, this influence was found to be less intense among the respondents who took part in the SOČ competition. The decision making role of parents in the group was more "by proxy" through the inspiration they provided. The influence of schoolmates and friends was also found to be high (higher than that of immediate family). A full 30% of respondents based their choice on the inspiration they drew from friends (for example from students in higher grades who had already taken part in professional creative activities and who had their first experience of "scientific" work). Behind this inspiration can also be social relations and peer groups. According to some authors (Blesste, Hlavsa, Thormannová 1979;

Szobiová 1998; Mayer 1999; Szmidt 2001 and others), creative individuals regard the quality of social relations as one of the conditions for stimulating and utilising their creativity. The quality of these relations is expressed in terms of mutual understanding, stimulation and activation, the finding of common ground, the declaration of similar values, as well as through the creative relationship with reality. In contrast, other authors believe that these opinions do not reflect reality because it is well known from social practice that creative people can be non-conformist, locking themselves away from society, distinctly introvert (e.g. Ďurič 1948; Dočkal 1987), and so on. However, what is not frequently taken into consideration is that introversion is a reaction to conditions within society and that a non-conformist stance is a creative reaction to this condition. Creative individuals often see things that other people do not or do not want to see in order not to create “problems” for themselves.

There is no evidence in our research to show that the respondents have a distaste for cooperating or communicating with other people or groups, or for exchanging opinions with them. However, it does show that real creative activity is primarily a matter for the individual and is often conducted in familiar surroundings – at home, rented accommodation, etc. The question is whether the qualitative change in society during the last part of the 20<sup>th</sup> century, in terms of ease of access to information, rapid communication, the ability to travel, and a certain “overpopulation” in public life, has resulted in creative people locking themselves up in search of privacy, or whether the opposite is true, that it motivates them to attempt to attach themselves to groups worldwide with a greater affinity to their own values, which subsequently stimulates them to undertake meaningful activity. It is well known that the motivation and emotions of human beings are conditioned by their social relations and vice versa (see Table 5).

The respondents in our research did not show any tendency to ignore the influence of other environments, to avoid life in groups, to not submit to accepted standards, or live in isolation. These findings can be put down to either one of two reasons. Firstly, the respondents are only at the start of their professional creative activities, or secondly, we still know very little about the status and the interaction of creative human beings in social groups. The latter reason means that all the research that has been conducted so far does not sufficiently reflect the radical changes in the way society functions (see Table 6, 7, 8).



Table 5: Respondents' evaluation of the benefit of Student Professional Activities for personal development

Evaluation of the benefit of <i>Student Professional Activities (SOČ)</i> for personal development	In total	Of which	
		Natural sciences & technical branches	Social sciences & humanities branches
Evaluation on a scale of 1 to 5 (1 = the best, 5 = the worst)	1.4	1.4	1.2

Source: Authors

Table 6: Source of the personal professional consultancy for processing of the professional work, as was chosen by participants of the professional creative activity

Professional consultant, work leader	In total		Of which			
			Natural sciences & technical branches		Social sciences & humanities branches	
teacher	105	59 %	62	50 %	43	80 %
expert outside the school	74	42 %	63	51 %	11	20 %
nobody	13	7 %	10	8 %	3	6 %

Source: Authors

Table 7: Source of advice on the structure and content of the respondents' professional work

Adviser on the structure and content of the professional work	In total		Of which			
			Natural sciences & technical branches		Social sciences & humanities branches	
consultant	117	66 %	80	65 %	37	69 %
methodical aids	44	25 %	28	23 %	16	30 %
something/someone else	29	16 %	24	20 %	5	9 %

Source: Authors

Table 8: Source of advice on the formal layout of the respondents' professional work

Adviser on the formal layout of the professional work	In total		Of which			
			Natural sciences & technical branches		Social sciences & humanities	
consultant	94	53 %	64	52 %	30	56 %
methodical aids	49	28 %	31	25 %	18	33 %
something/someone else	51	29 %	37	30 %	14	26 %

Source: Authors

Unlike M. I. Stein (1964) suggests, our research did not reveal that the young people taking part in the SOČ competition have less intensive relations with their parents or grandparents, or that they are less likely to take part in group activities, or engage sooner in independent work. On the contrary, the respondents had equally warm and intense relations with their parents and grandparents as any other youth. However, they have a tendency towards greater independence and introversion, as well as a preference for experiencing life situations through participation in groups with the same values and are driven by a deeper motivation to perform. Their families encourage them, even if indirectly, in these creative efforts. It could be said that their parents and grandparents act as role models for the relationship between creativity and objective reality. They strive to cope with the potential creative activities regardless of the type of activity and the real result. As stated above, our research also did not reveal that the respondents' relationships with their parents and grandparents are less intensive. On the contrary, the majority of respondents highlighted the great care that was taken of them, in particular during their pre-school years, as well as during their formative years when a young person's personality is shaped. It was also not possible to unambiguously prove the results of research conducted in the 1980s, which showed that young people with a high degree of creativity described their homes as less happy than those of young people who did not evince to being creative. It should be noted at this point that this issue may also be connected with the high degree of sensitivity the majority of creative individuals have to their surroundings, which makes them naturally more critical. Nevertheless, the results of our research did not reveal such evaluations of family life and home background.

The hypothesis put forward by M. I. Stein (1964) that the future "creators" are less likely to participate in group activities and are more likely to focus on independent work, proved to be problematic too. Our research showed that the majority of respondents did indeed participate to a lesser extent in class based group activities, but that they participated with greater intensity in those groups with similar interests and value orientation. Within this context, and from the viewpoint of behavioural patterns, it would be interesting to determine how the individual's parents and grandparents were involved in motivating the young generation's creativity. G. Domino (1979) affirms that the parents of creative boys were more likely to be engaged in artistic activities themselves, whereas the parents of less creative individuals were more likely to be engaged in sport. From the viewpoint of the behavioural patterns according to gender, the author subsequently affirms that mothers play a greater role in developing the creativity of their sons, whereas fathers that of their daughters.

The issue of the creativity of the younger generation in relation to their academically and professionally educated parents is more complicated to address (see research by Kováč 1982; Dočkal 1986). It was not possible to unequivocally state that there was no influence on the creativity of the younger generation from parents with a university degree. However, it appears that a greater role is played by the fundamental values held

by parents on education and knowledge, irrespective of their achieved level of education or the nature of their professional activities.

The way in which someone is brought up is often highlighted as a factor for stimulating creativity and creative potential. Unfortunately, the categorization of upbringing styles gives a false impression of “make or break” closed systems. The responses from the young developing creative personalities affirm that a pure style of upbringing in an educational environment can only be achieved in isolated cases. From the findings obtained from this research it would appear that the application of both the democratic and authoritarian styles of upbringing are the best for motivating a child’s creativity. On the one hand, parents, grandparents or other educators must therefore insist on the fulfilment of their requirements without compromise (responsibility, cultivation of volition, developing a sense of system, etc.). On the other hand, they must provide the young person with sufficient freedom and liberty to make their own decisions, explore their surroundings and express their opinions, at the same time as proffering respect for unusual thoughts and providing assistance in overcoming difficulties and supporting self-belief and self-development.

When looking at the correlation between the environment and creativity, the tendency is to view those factors that support and motivate, or to the contrary, hinder and limit, the development and the utilisation of creativity, in black and white. Within this context, so-called classical schooling, as characterized by a tough drill, encyclopaedism, reproduction of the curriculum and memorization, runs opposite to those concepts of teaching that embrace liberalism in upbringing and education to support the development and utilisation of creativity. However, the latest research, including the research conducted for this study, confirms that without a certain systematic cognition and the creation of a knowledge base it is impossible to achieve higher levels of creativity. Even if a direct relationship did not exist between intelligence, education and creativity, without a solid knowledge base it is impossible to achieve higher degrees of professional creativity. Within the school environment it is clear that the teaching climate therefore plays an important role in developing the required knowledge base. To create a favourable atmosphere for the development of creativity, the expectations and efforts of the teacher must match those of the students, this in spite of the high demands placed on students to acquire the curriculum content. The importance of this is emphasized all the more by the extent and the consistency of the teacher’s own creativity. Ironically, excessive teacher activity can stifle or inhibit the creative efforts of certain students. Similar issues can also arise in the family. An excessively inspiring environment in the family can paradoxically cause passivity in its younger members.

## **Conclusion**

The empirical research conducted for this paper sought to clarify the interrelationship between the development and utilisation of creativity and the social environment. The study was also a response to the growing neoliberal trend to excessively individualize creative expression and activities and to entirely ignore social influences. Under

neoliberalism, the basis for the organization and prosperity of society is exclusively formed by individual abilities and forces. However, from the culture heritage of preceding generations, we know that this is not true and that the main source of creativity has its roots in society and is transformed by the individual. These conflicts are evident in the problems that arise when attempting to define creativity; creativity is characterized by a number of factors that are often contradictory! For example, from the viewpoint of the social aspects of creative activity, it requires infringement of the existing social standards and conventions, but only to the limits that society is able and willing to tolerate at the given time.

Our research confirmed the initial hypothesis that a family's influence on the creative activity of students is not as significant as expected. Of greater importance was the indirect impact of the family. The role of Student Professional Activities (SOČ), as representative of the development of youth creativity in the Czech Republic, is anchored in the social environment. By conducting empirical research involving SOČ participants, an attempt was made to get to the roots of and determine the dependence of creative performances on the social environment. Our research confirmed the hypothesis that the creative efforts of those participating in the SOČ competition is based on the social background of their families and the schools which they attend.

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