

# CREATIVE PLATFORM METHODOLOGY: THEORETICAL FRAMEWORK FOR STUDENT CREATIVITY DEVELOPMENT IN COLLEGE STUDIES

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**Abstract.** *In recent years, researchers have focused on the manifestations of students' creativity, on the factors that impact its development, as well as on the conditions, means and methods that can facilitate students' creativity in various fields of study. In the present investigation, the existing definitions of creativity, creativity development, the concept of Creative Platform and prior research conducted in the field have been analysed.*

*The theoretical framework of the Creative Platform methodology, developed by the Danish researchers Christian Byrge and Søren Hansen (2009), is based on previous studies of creativity development (Amabile, 1998; Csikszentmihalyi, 2006; Stenberg, 1996; etc.). This methodology is currently used as a didactic model in higher education institutions across the globe, including Malta, Spain, China, and other countries.*

*The present investigation presents a model based on the Creative Platform methodology. It is designed to develop students' creativity in college studies via a specific teaching process during which students develop extra confidence, concentration, and motivation necessary for freeing themselves from the professional, social, or cultural stereotypes.*

**Keywords:** *creativity, creativity development, Creative Platform, higher education.*

## Introduction

The 21st century learners are surrounded by a variety of visual means, mobile and smart technologies. Under the circumstances, the all-embracing advancement of technologies has become decisive in shaping a different understanding of communication, search for information and creation of meaning (Pedro, 2006). In the face of constant changes in technology and knowledge expansion taking place across the globe, creative education has become especially important since learners constantly and inevitably face new phenomena, and there is an ever-growing need to be able to learn to think creatively. In recent research, emphasis is laid on the significance of developing creativity in higher education. To illustrate, a Lithuanian researcher Barynienė

(2015) points out that HE faces a very ambitious goal since the present-day graduates will operate the type of technology and under the circumstances that now are even non-existent. For that reason, creativity as the ability to generate new ideas, think independently, evaluate problem situations and make fast and reasonable decisions while projecting future tendencies has become a top priority. Urban (2014) believes that creativity or creative action involves much more than divergent thinking and claims that in order to not only cope with, but also construct and shape one's life and future successfully, it is necessary that individuals have at their disposal a broad set of competencies, especially those involved in a comprehensive concept of creativity.

The concept and manifestations of creativity as well as the processes of its development have been widely researched and discussed. Nowadays, the paradigm of education is based not on knowledge transmission, but on more practice-based methods that encourage problem-solving skills, ask for critical thinking, and demand an overall creative approach. Craft, Cremin, & Burnard (2008) points out that creativity cannot appear out of nowhere, and it is the teacher who plays a crucial role here. Thus creativity does not simply manifest itself due to the existence or availability of 'interesting resources' or due to a 'different organizational pattern' of activity in comparison to the habitual one. Numerous investigations present proof that new ideas and relevant solutions are made on the basis of non-traditional approaches to the existing problems. Creativity calls for unconventional ways of solving the problems we face. The latter statement draws our attention to the role of favourable environment for creativity development, which includes two components: the psychological component (a positive attitude towards pro-active manifestations, initiative, curiosity, readiness to experiment, tolerance of digressive and inventive attempts, playfulness, humour, and the like) and the physical component (plentiful visualizations, naturally-friendly and resource-rich environment, positive disposition-enhancing and well-matching tones of colour). In Sternberg's view (2006), the factor of environment ranks high in generating manifestations of creativity. The author believes that some people need creativity-supportive acknowledgement in the form of rewards and extra bonuses, while others, those with a strong inwardly-hidden potential for creativity, may badly need outwardly-expressed support and encouragement from the environment to be able to reveal their creativity potential. Thus it could be stated that education can be not only an incentive but also an obstacle to creativity development (Ganusauskaitė & Liesionis, 2009; Girdzijauskienė, 2012). Therefore, it is of utmost importance to include components of the personal features responsible for creative behavior as well as to recognize the mutual dependencies of person and environment throughout the whole process of creative development and activity itself (Urban, 2014). Grakauskaitė-Karkockienė (2010) believes that development of creativity

is an integral part of the overall development of a personality. In her opinion, with successful stimulation of creativity in place, it is possible to enhance general development of a personality, and creativity, in turn, can be fostered: by designing and developing teaching programmes, by choosing appropriate methods of teaching and learning, or by selecting individually-applicable methodologies and designing some 'tailor-made' models. Lund, Byrge, Nielsen (2017) also talk about the possibilities of developing creativity by developing programs using certain methods.

Thus, higher education institutions can play a significant role in the process of developing students' creativity on condition that they have a clear understanding that traditional teaching, based on knowledge transmission and reception, can no longer meet the present-day requirements in education, which is undergoing a constant change. To foster students' creativity in HE in Lithuania, a theoretical model has been designed. This model is based on the Creative Platform methodology which was originally developed by the Danish scientists Byrge and Hansen (2009). At present, the model is being applied in college studies that are implemented within the system of HE in Lithuania.

### **The relevance of research**

The complex and ever-changing environment poses demands and needs for solving problems creatively. Lithuania's Progress Strategy "Lithuania 2030" emphasizes the role of higher education which should provide all necessary conditions for the development of a creative, responsible and open-minded personality. Creativity is related to unconventional thinking, unexpected decision-making, one's ability to generate ideas, demonstrate non-traditional approaches, and the like. The overview of research literature demonstrates that creativity is viewed as a way of creating knowledge (Craft, 2008), and in order to involve learners into the processes, pro-creative methodology is used (Simplicio, 2000). Edward de Bono (as cited by Valantiejtė, 2009) states that one of the problems of different education systems is their erroneous belief that creativity refers exceptionally to the disciplines of art (music, visual arts or dance) since many people cannot comprehend the fact that the very essence of creativity lies in generating ideas and taking new approaches while trying to solutions to different complex situations. The research literature reveals that a number of researchers (Fullan, 1998; Jucevičienė, 2007) discuss the processes of teaching and learning relying on a conceptually new approach to education. Fullan (1998) asserts that desirable outcomes in education can only be achieved on condition that the ability of learners to think independently and creatively is consistently developed. At the same time, both foreign and Lithuanian researchers point out that present-day institutions of higher education still tend to use a lot of practices

that are directed towards reproductive rather than creative approaches towards learning. The study carried out in Lithuania in 2014 by Research and Higher Education Monitoring and Analysis Centre (MOSTA) showed that, in the opinion of Lithuanian employers, higher education graduates lack decision-making skills (84%), analytical skills (77%), and creative approaches (59%). University and college graduates often lack knowledge and skills about specific strategies for developing creativity as well as about ways of creative thinking in general. To bridge the existing gap, a theoretical model based on the Creative Platform methodology has been designed and applied in college level studies in the system of higher education.

The object of the research is developing students' creativity. The aim of the research is to reveal the aspects of student creativity development. The objectives of the research are:

- To provide overview of possibilities of creativity development, research of creativity development;
- To analyse the significance of student creativity development within the context of higher education;
- To present the student creativity development model based on Creative Platform methodology.

The research method used in preparing the article is analysis of research literature.

### **Creativity and its development**

In recent decades' creativity has been analysed as a multi-faceted phenomenon within the context of personality, society and culture studies. Creativity, its conceptualization and forms of manifestation as well as creativity development – all these aspects have been widely researched. For example, Guilford (1950, 1987), Sternberg (2006), Grakauskaitė-Karkockienė (2006, 2010, 2013, 2016), Craft, Cremin, & Burnard (2008), Ganusauskaitė & Liesionis (2009), Hennessey & Amabile (2010), Girdzijauskienė (2012), Byrge & Hansen (2009, 2014, 2015), Robinson (2011), Kaufman (2012), Urban (2014) investigated the concept of creativity, the key decisive factors and methods of creativity development. Torrance (1999), Csikszentmihalyi (2006), Beresnevičius (2006), Starko (2014), Barevičiūtė (2014) researched creativity as a personal skill used to identify societal problems and make appropriate decisions. On the other hand, Penkauskienė (2016) explored the relationships between critical and creative thinking; whereas Rimkutė-Jankuvienė (2016) studied theoretical aspects of creativity discourse and Burkšaitienė (2018) investigated the role of university for the development of students' creativity as

well as university students' attitudes towards its development while studying a foreign language.

In this context it is important to mention new research instruments and models developed to investigate creativity. For instance, Kaufman (2012) created – the instrument *Kaufman Domains of Creativity Scale* (K-DOCS), aimed to establish creativity domains to be measured. Urban (2014) summarized creativity theories and provided a model that determines two main groups of components within the environmental dimension: Cognitive (Divergent thinking and acting, General knowledge and thinking base, Specific knowledge base and area-specific skills) and Personality (Focusing and task commitment, Motivation and motives, Openness and tolerance of ambiguity).

In the research, creativity tends to be viewed as a systemic phenomenon (Sternberg, 1996) especially within the contexts that cross the boundaries of psychology, and patterns of creative modelling are viewed as an effective basis for creativity development. Thus creativity becomes an indispensable skill for the present-day individuals, the skill that can be encouraged or subdued like any other skill. Simonton (2000), who views creativity as a successfully-matched combination of favourable circumstances and possibilities put to use, suggests using techniques of social communication. In the researcher's opinion, the attitude towards one's own creativity ranks among the most important factors in developing creativity, that is why insufficient evaluation or even diminishing one's own creativity has a negative impact on it, while support and praise received from others enhance one's confidence in one's own creative power. The results of a study conducted by Burkšaitienė (2018), on the other hand, showed that in higher education curriculum should contain assignments aimed at developing student creativity. Creativity as a certain system is well-developed in the theory of creativity offered by Csikszentmihalyi (2006), where creativity is treated as an ever-changing, constantly developing and socioculturally dependent system. Csikszentmihalyi (2006) emphasises the impact of sociocultural factors on creativity and asserts that creative decisions depend on three inter-related components: good knowledge of your creative field of activity, personal or inborn abilities and skills, and the ability to apply one's knowledge gained in a field of creativity in practice. Amabile (1998) treats creativity as a permanent quality of a personality and points out to differences in people in terms of their abilities, cognitive qualities, motivation, and other circumstances that precondition personal creativity. Creativity can find various forms of manifestation depending on different cultural contexts, and motivation, especially the intrinsic one, which can play the decisive role in creativity manifestations (Hennessey, 2010; Csikszentmihalyi, 2006; Amabile, 1998).

Rimkutė-Jankuvienė (2016) points out that researchers from different fields have displayed a keen interest in creativity, which has gradually resulted in

different approaches to creativity while designing instruments for measuring it, whereas creativity has been most commonly analysed as a specific individual ability or a certain type of thinking; creativity has also been studied both as a process and as the outcome of the process. The researcher asserts that the observed variety of approaches towards creativity research has given rise to completely different treatments of the phenomenon of creativity. The discussion regarding the interaction of various factors and the underpinning arguments can be found in the works of representatives of *confluence education* (Rhodes, 1961, Amabile, 1998; Sternberg, 2006; Csikszentmihalyi, 2006; Sternberg, 1996, 2006; Weisberg, 2006). Rhodes (1961), with the *4P concept of creativity*, was among the first ones to view creativity in a systemic way, at the basis of which lie four variables of creativity: the person (the qualities of a creative personality), the processes (of motivation, activity, thinking, communication), the product (ideas, scholarly and artistic works), the environment (sociocultural context of creative agent), which means that it is impossible to define creativity by one single component. Sternberg (2006) researched the origins of creativity, and he pointed out that creativity is not a merely inborn human quality. In his opinion, the development of one's creativity can be a completely free choice of individual. His *investment into creativity* theory claims that everyone can become creative if they are prepared to invest time and effort. The author believes that creativity manifests itself as a coherent whole of personal cognitive processes and personal qualities, thus the significant creativity pre-conditioning factors are: intellect, knowledge, style of thinking, personal qualities, motivation, and environment.

Edward de Bono (as cited by Valantiejtė, 2009) also states that creativity techniques can be fairly successfully exploited by separate individuals at their choice. Long-term research findings into creativity give solid basis to assert that personal qualities and traits significantly influence the qualitative dynamics of creativity (Sternberg, 2006): a perceived will to overcome obstacles, readiness for risk-taking, tolerance, self-dependence and self-reliance. Rakauskaitė (2014) is of the opinion that creativity is a skill that requires constant development, thus original 'tailor-made' methods of educating creativity are needed to cherish creativity. Torrance (1984), who studied creative thinking for a number of years, believes that creativity can be educated. In his opinion, the key skills of creative thinking (fluency in thinking, flexibility, originality) and imagination can be developed by posing relevant questions and setting pro-creative tasks. Ganusauskaitė and Liesionis (2009) believe that it is of utmost importance in higher education institutions to conceptualize the essential value of educating 'the whole personality'. According to the researchers, the understanding of creativity should by no means be restricted to the development of imagination – so as to be able to create masterpieces of art. In the first place, a creative personality is able to think critically and independently, can resist ideological restrictions, can offer

new ideas and cherish them, even though it may be impossible to put them into practice immediately. Grakauskaitė-Karkockienė (2013) is of the opinion that important steps include studying, recognising, and consciously approaching different aspects of a creative personality in order to better comprehend how to deliberately address the needs of a creative personality in the process of creativity development. All personal qualities relating to creativity should be given timely attention by offering suitable programmes and methods that encourage the development of creativity.

In conclusion, it is priority being given to the study of factors that become decisive in developing creativity. The researchers also to agree that specifically chosen methodology, deliberately designed programmes as well as conscious and continual attention to the processes of fostering creativity in higher education can make a significant contribution to the development of student creativity.

### **The significance of developing student creativity in higher education**

Ganusauskaitė and Liesionis (2009) believe that the purpose of higher education is to educate an inventive and self-reliant personality, able to display original thinking. In the authors' opinion, teachers in higher education institutions are frequently reluctant to reveal and admit the existing shortcomings in their own creative thinking, therefore, they hesitate to acknowledge the value of creative thinking and are not always willing to apply the techniques of creative thinking in practice. Daujotytė (2010) states that the prospects of mankind have become closely related to creativity in the present-day world more than ever before. The future will depend on how many creative people we will be able to educate, the people capable of creative functioning, of generating ideas, and of shaping alternative approaches. In the researcher's view, a creative personality comes up with unexpected decision-making, discovers ways out of complex situations, takes new directions, and perceives the surrounding world in a completely new way.

Robinson (2011), on the other hand, discusses the issues of education and culture of habit-shaping asserts that previously performed reforms and changes are insufficient and calls for a fundamental change – a systematic development of creativity, imagination and innovation. Grakauskaitė-Karkockienė (2006) asserts that there are essentially two points to be considered in educating creativity in higher education: your self-assurance that you are a truly creative personality, and your ability to participate in creative processes on a par with others, to be ready to hear your self-assurance confirmed by peers or, at times, be ready to accept some criticism from them. The author points out that this kind of attitude helps a person to build his confidence, enables him to convince others of one's ideas, encourages him to display his own creativity. The researcher refers

to 25 strategies put forward by Sternberg and Williams (1996) that could facilitate students' creative thinking if their teachers include them into their study curriculum. As much as these pro-creativity strategies work in favor of creative thinking, there also exist other strategies that work on the contrary, and are even capable of "killing" creativity. Hennessey and Amabile (2010) describe five ways of acting that work against creativity: asking learners to do tasks while expecting a previously-agreed upon reward for the would-be work, deliberately creating competitive situations, focusing learner attention on expected evaluation, constant observation and controlling, and creating situations of limited choice. Fasko (2000, 2001) also stresses that outwardly-focused evaluations tend to weaken intrinsic motivation and prevent learners from producing a creative product. With the learner's mind set on the expected reward, the learner's extrinsic motivation becomes dominant, especially in the situation of being closely observed in the process of activity. In the author's opinion, in the situations where the teacher's goal is to improve the learners' convergent thinking, evaluation from aside could have a favourable effect upon the result of fulfilling a creative task. However, when the learner feels that creativity itself is being evaluated, creativity undergoes a negative effect. Obrazcov (2013) points out that a contemporary higher education teacher has to overcome personal limitations in viewing creativity (lack of confidence or insufficient motivation, unwillingness to undergo change) to be able to organize educational activity and develop creativity.

Thus, the literature overview reveals a significant role that the higher education teacher has to play in order to develop students' creativity and highlights its preconditions, which include favourable environment, specifically chosen teaching and learning methodology. While designing the present model aimed to develop students' creativity in higher education, much attention was given to the development of teachers' competencies. The present theoretical model created on the basis of the Creative Platform methodology is described in detail below.

### **The concept of *Creative Platform***

The Creative Platform methodology (CP) was created by Christian Byrge and Søren Hansen (2008) at the University of Aalborg (Denmark), on the cooperative basis between research and educational institutions as well as private companies. This methodology integrates a number of prior studies into creativity development (Amabile, 1998; Csikszentmihalyi, 2006; Sternberg & Williams, 1996 and others), and nowadays it is applied as a didactic model in higher education in several countries across the globe. In didactic terms, the CP is based on the assumption that it is only through the activities of confluent inclusion that

we can get rid of the dominant patterns of thinking, the patterns that rely on following the discipline, social structures, and cultural traditions. The aim of this methodology is to create a practical approach to the perspective of knowledge by encouraging creativity. The main aim of the Creative Platform is to facilitate and encourage creativity.

The model developers assert that creativity is possible to educate on the basis of learning style that encourages students' confidence and develops their concentration, by encouraging motivation to get free from professional, social and cultural pre-conditioning that imposes certain limitations on the students' ability to use the obtained knowledge freely and creatively. The conception of CP is based on four principles enabling the development of creative competencies (motivation, concentration, confidence and knowledge). Byrge and Hansen (2015) analysed how these four principles interact in creativity development including the impact of motivation on creativity (both positive and negative factors of motivation), parallel thinking in learning to concentrate one's thoughts, students' confidence and relationship with other participants of the educational process, and selection and application of appropriate knowledge to create new knowledge (horizontal thinking). These principles highlight the key points that are essential for the creative processes to take place. In the process of designing our theoretical model, we relied on the theoretical aspects of the CP methodology. The focus of the researcher (the author of the article) is oriented towards the very process of creativity development e rather than towards the result of the creative process. In designing the present model, the author targeted the creative process as it allows to relate students' ability to concentrate their attention, to apply creative thinking, to develop confidence and to encourage motivation. Students' creativity model is presented in Figure 1.

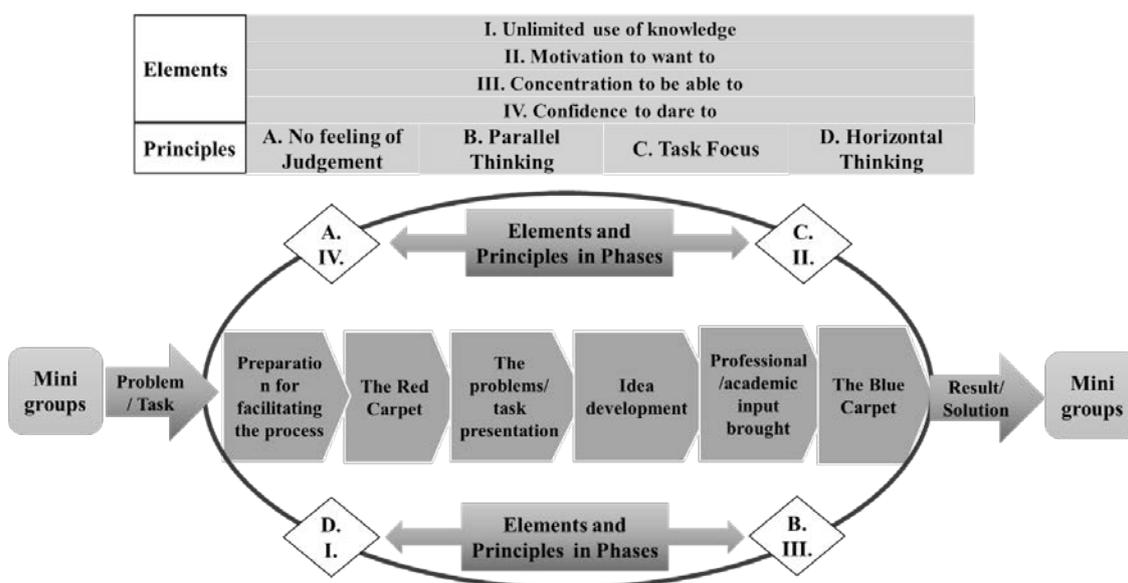


Figure 1 Students' creativity model

The model is integrated into the study process in a particular Lithuanian college. It is applied to mini groups of students, to find decision the work on task/problem. The newly-designed model is based on 3D cases, when are chosen appropriately methods for creativity development. The process follows 6 phases: Preparation for facilitating the process, the Red Carpet, the Problem/task presentation, Idea development, Professional/academic input brought, and the Blue Carpet. Always the process follows 6 phases no matter the work on task/problem. The going process four principles highlight the key points that are essential for the creative processes to take place: all participants of process have the same kind of thinking and behavior at all times (parallel thinking), one should only focus on the task (task focus), there should be no experience of judgement (no experienced judgement), plus stimulating the use of all kinds of knowledge (horizontal thinking). On the basis of the designed theoretical model, practical work has been done with the participation of 16 teachers using the model in practice. The teachers underwent practical training before the model was applied in the process of college studies to facilitate their choice of methods in developing students' creativity. Both theoretical and practical tutorials were offered to the teachers with the aim of integrating the Creative Platform methodology into the process of college studies when they were provided with possibility of trying out some methods for creativity development e. The teacher training sessions were followed by reflection and feedback sessions. Criteria for the evaluation of interim results were created and will be used at the end of the semester. As the integration of the model is oriented towards overall processes of college studies, rather than towards separate subjects, we believe that this pedagogical intervention will facilitate the processes of creativity development, and also hope to be able to present our findings of this intervention in the future.

## **Conclusions**

1. The concept and manifestations of creativity as well as the processes of developing creativity have been widely researched and discussed in research literature. Creativity is viewed as a complex and multi-faceted phenomenon which operates within the context of personality, society, and culture studies. The discussion of the interaction of factors and the underpinning arguments are be found in the works of representatives of confluence education. Creativity is viewed as a way of creating knowledge (Craft, 2008), thus it is required to be aware of the essence of creativity and how education can benefit from creativity. The literature overview demonstrates that creativity is the ability that can and should be developed, whereas a creative personality is characterized by fluency and coherence of thinking, originality and flexibility, curiosity, initiative and readiness to act, the ability

- to come up with unexpected decision-making, innovative problem-solving and the like.
2. Higher education institutions can play a significant role in the process of developing students' creativity on condition that they have a clear understanding that traditional teaching, based on knowledge transmission and reception, can no longer meet the present-day requirements in education, which is undergoing fast and ever-changing developments.
  3. To develop students' creativity in college studies, a theoretical model has been designed on the basis of the theoretical aspects of Creative Platform methodology. The newly-designed model is based on 3D cases, when are chosen appropriately methods for creativity development, to find decision the work on task/problem. The model is applied to mini groups of students, that the entire process of the Creative Platform take place in the 6-phase.

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