

## **DEVELOPMENT OF CREATIVITY IN TEACHER EDUCATION**

**Inga Bertašienė**

*Vilniaus kolegija/ University of Applied Sciences, Faculty of Pedagogy, Mykolas Romeris University, Lithuania*

### **Abstract**

The article offers a discussion that is based on the research findings of both Lithuanian and foreign scholars as well as on the strategic documents underlying the significance of developing creativity in teacher education. The scientific analysis of the study has been done with reference to the existing different definitions of creativity and the respective research in the field about forms of manifestation of creative personality and its education.

**Keywords:** creativity, research of creativity, educating creativity, teacher education.

### **Introduction**

The ongoing change of technologies and development of knowledge society so typical of the XXIst century moves forward advancement in education. According to Sales, Fournier and Sénéchal, modern society is strongly interested in accumulating knowledge and information, it is sort of 'obsessed' with different manifestations of communication and creativity, and creativity is treated as considered reflection. In the run of present changes in the world, creative education becomes especially important since learners constantly and inevitably face new phenomena, thus the need for life-long education becomes complemented by the need to be able to learn to think creatively.

The present article offers the understanding of education not as a mere acquisition of knowledge but rather as a deep comprehension-based creation of meaning accompanied by active involvement, thus the development of creativity in teacher education becomes a necessity in the face of change in the processes of teaching/learning, thinking and conceptualisation. These processes are strongly influenced by the contemporary environment of dominance of visual materials, mobile applications and other digital media. This kind of all-embracing development of technologies is decisive for a different understanding of communication, search for information and creation of meaning (Pedro, 2006), thus the contemporary system of education should view education from a new and creative perspective.

The concept and manifestations of creativity as well as the processes of its education have been widely researched and discussed in research literature. The scholars of different fields have researched creativity and analysed its educational aspects while approaching the phenomenon from different perspectives. As a consequence, there have developed different directions in the field of creativity research. Since different researchers attribute different qualities characteristic of a creative personality, it is next to impossible to present one overall picture of a creative personality. Craft (2008), while discussing the situation in the research of creativity, states that creative personalities tend to display different qualities, that is why it is difficult to apply one and the same measure to them.

The changed paradigm of education is based not on a simple knowledge transmission but on more practice-based methods that encourage problem-solving skills and ask for critical thinking, and demand an overall creative approach. The importance of these methods is emphasised in both national and European strategic documents of education. In the Recommendation issued by the European Parliament and European Council for developing life-long education skills (2006), it is stated that well-developed general competences not only guarantee the individual's professional growth but also add to their creativity, personal growth and motivation to further work and learn. The same point of view is found in the documents of the Republic of Lithuania: in the vision of science and studies Science-bound Lithuania 2030 (2012), National Strategy of Education 2013–2022, National

Programme for Progress 2014–2020; in the document Lithuania 2030 it is stated that conditions will be provided for encouraging essential changes in the society and developing the creative, responsible and open-minded personality. The document also points out that creativity and critical thinking are valued as significant national resources that should be nurtured since early childhood and continued throughout one's lifetime. This can only be achieved by an active participation of teachers and also an active role played by teacher education institutions.

### **The relevance of the research**

The complex and everchanging environment poses the need for solving problems creatively. The strategy for progress in Lithuania *Lithuania 2030* emphasises the role of education that should provide all necessary conditions for the development of a creative, responsible and open-minded personality. The study of research literature on education reveals the fact that a number of researchers in education (Fullan 1998, Jucevičienė 2007; Adomaitienė 2001; Petty 2008) discuss the processes of teaching and learning while relying on conceptually-new approach to education. Fullan (1998) asserts that desirable outcomes in education can only be achieved on condition that all educators are ready to think and act independently, and cooperatively work towards common goals. At the same time, both foreign and Lithuanian researchers point out that present-day institutions of education tend to use a lot of practices that are directed towards reproductive rather than creative approaches towards education. In the Report of the Project *Creative Education: Research and Methodology (2012)*, it is stated that teachers are not being trained and do not feel prepared to work cooperatively; they often lack knowledge and skills in creative education and strategies of developing creative thinking. On the basis of the study done in exploring the strategic documents for education and research literature on developing creativity, it is legitimate to assert that one of the key factors in the field is developing future teachers' creativity and prepare them to approach problem-solving in a creative way. Traditional teaching that had mainly been knowledge transmission-oriented is no longer valid in training teachers for fairly unpredictable future activity while living in the ever-changing world.

The **object of the research** as presented at the basis of this article is developing creativity in teacher education.

The **aim of the research** is to reveal the aspects of creativity development in teacher education.

The **objectives of the research** are:

1. To survey the concept of creativity and its research.
2. To analyse the manifestations of creativity and possibilities for its education.
3. To discuss the significance of developing creativity in teacher education.

The **method of the research** is analysis of research literature.

### **The concept of creativity and its research**

In recent decades, creativity has been analysed as a complex and multi-dimensional phenomenon within the context of personality, society and cultural issues. Most research carried out in the eighth and ninth decades of the previous century focused on the wish to define and 'measure' creativity. Torrance (1984) designed tests to evaluate creativity, and they became widely used for estimating creativity. Later on Feldman (2008) related the measuring of creativity to the psychometric instrument meant to evaluate the individual's psychic and psychological qualities, and he claimed that it is necessary to establish what creative learning really means and what it relates to. Many researchers point out to the fact that creativity cannot appear out of nowhere and that the teacher 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.

Rimkutė-Jankuvienė (2016), while generalising the research on creativity, states that different directions in the study of creativity appeared due to the fact that researchers from quite different fields got interested in creativity. In her opinion, different instruments for measuring creativity were designed while viewing creativity as manifestations of individual abilities and thinking, and creativity was mainly studied as the process and outcome of creation.

Supporters of confluent education (Amabile, 1990, 1996; Sternberg, 2006; Csikszentmihalyi, 1990, 2007; Sternberg, Lubart, 1996; Weisberg, 2006) speak about the interaction of components that can explain and/or influence creativity.

Sternberg (2006), while exploring the nature of creativity, claimed that creativity is not an inborn human quality. In his opinion, developing one's creativity could be a matter of a personal choice of the individual. His Theory of Investment into Creativity claims that everyone can become a creative personality if only they choose to invest time and effort into that. The author asserts that creativity requires the coherence of individual cognitive processes and individual qualities, thus creativity is preconditioned by such factors as intellect, knowledge, thinking styles, personal qualities, motivation and the environment.

The patterns and styles of thinking, according to Sternberg (2006), are decisive in the choice of ways and employment of personal qualities in decision-making. According to Beresnevičius (2006), the individual thinking style is also very important as it preconditions the individual's subconscious worldview and with other individuals. In Valantiežūtės view (2009), the techniques that encourage creativity can be successfully used by separate individuals. Sternberg (2006) states that the outcomes of long-time research in creativity speak for the fact that personal traits and qualities are important for the quality of creative functioning. Among the especially significant qualities, the following ones are listed: the wish to overcome barriers, risk-taking, tolerance, independence, confidence and self-reliance.

In Sternberg's view (2006), the factor of environment also plays a significant role in manifestations of creativity. The author believes that some people need creativity-supportive acknowledgement in the form of reward and extra bonus while other people, with a strong inwardly-hidden potential for creativity, badly need outwardly-expressed support and encouragement coming from the environment to be able to reveal their creativity. Thus it could be stated that in terms of creativity-favourable environment in an educational institution, education can play in both directions – for and against in the development of creativity (Ganusauskaitė, Liesionis, 2009; Girdzijauskienė, 2012).

Csikszentmihalyi (1990) treats creativity as a system, with equally important components of individual personal traits, and cultural context, with separate domains of creative activity in it. The author believes that some individuals achieve change due to their personal qualities while others gain more when they manage to occupy a favourable position at a certain time as they are given access to knowledge, other means, or when they are not restricted by their social position and thus can feel free to experiment. Csikszentmihalyi (1990) speaks about the importance of the immediate cultural environment and the general cultural context, i.e., the significance of the human community united by similar patterns of thinking and activity as people learn from others and tend to imitate one another's actions.

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, attitude towards 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 creativity while support and praise coming from others enhances one's confidence in own creative power.

Rimkutė-Jankuvienė (2016) presents creativity models offered by representatives of systemic creativity research where creativity is analysed as a complex phenomenon, with a system of its subcomponents interacting with one another. Rhodes (1961) 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 creator), which means that it is impossible to define creativity by one single component.

Present-day science tends to view creativity as a systemic phenomenon (Sternberg, Lubart, 1996), especially with reference to its wide context, not merely the psychological one; and patterning of creative tasks here is treated as an effective way of developing creativity. Thus creativity tends to become a skill of contemporary everyday living, and, like any other skill or habit, it can be encouraged or suppressed.

### **Manifestations and education of creative personality**

As it becomes evident from the analysis of research literature, the notion of creativity is fairly wide and it embraces a number of aspects: problem identification, prompt orientation on the way of solving problems, generating new ideas, open and flexible thinking, originality of thinking, etc. Different authors tend to attribute different qualities to a creative personality, thus it is impossible to come up with one unique picture of a creative personality. Craft (2001) asserts that research in creative personality characteristics is carried out from different perspectives, with different points in mind, and with the help of different methodology, thus the findings are not comparable, and overall generalisations are not possible, either.

The dictionary of terms in psychology gives that what is characteristic of a creative personality is the ability to generate ideas, to think independently and in a non-conventional way, to come up with undelayed decision-making in problem situations, to find unexpected solutions, and creativity itself is generally preconditioned by individual sets of personal qualities (freedom of imagination, speed of thinking, precision, flexibility, inventiveness, constructive thinking, curiosity, sustainability of motivation, the need for self-development, certain circumstances of living (experience, education and self-education)).

Starko (2005, 2013), while discussing the traits of a creative personality, speaks about the following cognitive characteristics: metaphorical thinking, flexibility and self-reliance in decision-making, logical thinking, capability for visualisation, ability to cope with a chaotic situation. The author also points out to other traits of personality: readiness to accept risk, commitment to task completion, curiosity, openness to new experience, tolerance to ambiguity and to lack of clarity, a wide scope of interests, appreciating originality, intuition and depth of emotion, the ability to 'dive' into self-devoted activity as well as the ability to get out of it. However, Starko (2005, 2013) also makes a mention of somewhat mutually-contradictory personal qualities, like flexibility and logical thinking, readiness to take risks and display commitment, deliberate effort in achieving the aim set and tolerance to chaotic situations. Csikszentmihalyi (1990), while generalising characteristics of exceptionally-creative personalities, also emphasise essential notions of contradictory nature, like energetic involvement in activity and ability to relax and reflect; high intellectual abilities and naivety; playfulness and discipline; getting 'lost' in the world of fantasy and a clear sense of reality; modesty and pride; tradition and innovation; obedience and rebelliousness; absence of bias in gender-related issues, and ability to attribute woman-like and man-like dimensions to works of creation, etc.

In general, it could be stated that very different, even contradictory personal qualities can peacefully co-exist in a truly creative personality. The quality of flexibility is often mentioned as the one of high importance for a creative personality, and it can manifest itself in different areas. The researchers point out that, despite a huge variety of personal qualities listed, there is some agreement on the key features that are typical of the majority of creative people: innovative thinking and uniqueness, non-conformistic behaviour, ability to identify non-traditional ways in problem-solving, exceptional character of the product being produced, etc. (Bukantienė et al., 2013).

The generalised conclusions of the study *The Situation in the Development of Student Creativity at the Mother tongue (Lithuanian) Lessons* (2012) revealed that teachers tend to attribute to creative personalities the same qualities as found in research literature: originality of thinking and flexibility, curiosity, initiative and activity, independence and self-reliance, high motivation and ability to resolve problems. This study provides us with evidence to judge that teachers do not give sufficient attention and time to experiential development of creativity though they can recognize the stages in the development of creativity and perceive their importance for developing thinking. There is a tendency to consider different products as manifestations of creativity, in terms of literary or artistic pieces, research and project works. The conclusions of the study admit that the situation can be partly explained by the character of the existing teaching materials, the content of which seldom encourages learners to 'experience' the process of creation and focus in-depth on the finalised product of creativity; attention to the discussion of the outcomes of creation is not sufficient, either.

Grakauskaitė-Karkockienė (2010) asserts that development of creativity is an integral part of overall personality development. In her opinion, with successful stimulation of creativity in place, it is possible to enhance general development of personality, and creativity, in turn, can be educated in many different ways: in designing and developing teaching programmes, in applying individual therapy, and in teacher further professional development activities. Torrance (1984), having researched the issues of creative thinking for a number of years, believes that creativity can be educated. In his opinion, the major skills of creative thinking (coherence of thinking, flexibility, originality) and imagination can be developed by setting appropriate questions and giving creativity-fostering tasks. Rakauskaitė (2014) agrees to the opinion that creativity is not an exceptional feature of only very capable people, it is achievable for every individual as it is the kind of skill that should be developed on a regular basis. Processes of education can do both facilitate and hinder the development of creativity. That is why, in the researcher's opinion, it is necessary to design tailor-made, original and individually-applicable teaching and learning methods to educate and foster creativity in order to satisfy the needs of society members experiencing thirst for knowledge since a wide variety of methods applied in developing a creative personality is the road to success.

Daujotyte (2010), while speaking about identification of creative manifestations, states that the prospects of mankind get 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 idea generating, 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.

### **Importance of creativity in teacher education**

Robinson (2011), in discussing the issues of education and culture of school habits, asserts that previously-performed reforms and changes at school are insufficient. Essential changes would mean that we have introduced systemic education of creativity, imagination, and innovations because, in the researcher's view, the purpose of education is not to teach school subjects; its purpose is to teach learners, i.e., emphasis is laid not on 'covering' school or subject programme but rather on learner active involvement in studying. Duoblienė (2000) also supports the opinion that critical approach and creativity are of utmost importance in the face of different ontological, epistemological, ethnic and religious paradigms when the teacher presents a pluralistic view of the world, with its polysemous models.

The researcher and developer of a specific approach to creative thinking, the theory of lateral thinking, the 2009 ambassador for the EU in creative thinking, Edward de Bono maintains that the whole system of education is based on knowing and analysing, and that we are not sufficiently skilled in approaching things creatively, in projecting situations, and modelling outcomes. Instead of

developing thinking, learners are urged to ‘cram knowledge’ (Valantiežūtė, 2009). According to Edward de Bono, the biggest problem in education in many countries is the wrong belief that education of creativity exceptionally relates only to subjects of artistic expression (music, visual arts and dance) since many people do not understand that the essence of creative thinking lies in generating new ideas and learning how to find ways out of various situations. These are the things which, in the researcher’s view, should be conceptualized and freely educated. The methods of creative thinking and projecting possible models as offered by Edward de Bono have been already widely used in many countries. The experience obtained in the United Kingdom gives grounds to state that introducing creative learning as a school subject in its full right increases the learning outcomes of all other school subjects from 30 to 100 per cent (Valantiežūtė, 2009).

Ganusauskaitė and Liesionis (2009) believe that it is of utmost importance for teacher educating 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 – 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 repressions, can offer ideas, even when they cannot be put into life immediately. Ganusauskaitė and Liesionis (2009) believe that the purpose of higher education should be to educate an inventive personality, able to be self-reliant and offer original thinking; not the one adjusting oneself to the existing methodologies and theories as laid out in the coursebook. The authors also indicate the main hindrances that prevent from educating creativity in higher education in Lithuania. In their view, teachers themselves are unwilling to admit what a true situation in the area of creative thinking is, and they hesitate to acknowledge the value of educating creative thinking and using specific techniques to develop creative thinking. Earlier on, several decades ago, Torrance (1984) pointed out that the relationship between teacher and student should carry a truly creative character; it by no means should rely on the chain ‘stimulus-response’, instead, the relationship should gradually grow due to the jointly acquired new experience. The researcher also drew our attention to the existing cultural reservations that prevent us from demonstrating freely our creative manifestations, for instance, using game-like techniques which are considered as if contradicting to our common understanding of the norms of ethics, or, say, choosing other means to achieve the desired effect.

Grakauskaitė-Karkockienė (2006) claims that, in fact, there are two important points in educating creativity, namely, the self-confidence that you can act in a creative way, and your capability of active participation in the creative processes, your ability to listen and hear from others and feel that you part of the jointly carried out activity, your readiness to accept both acknowledgment and criticism. The author believes that this kind of attitude helps to boost self-confidence and teaches you how to sound convincing in sharing your ideas; it also adds to the growth of your own creativity. The researcher draws our attention to the 25 strategies offered by Sternberg and Williams (1996) that could help teachers to educate creative thinking in their students if used on a regular basis, as part of the mandatory curriculum.

Fasko (2000–2001), while discussing the issues in creativity education, also points out that comments from outsiders suppress the intrinsic motivation of the learner and diminish the creative value of the product. That is why, in situations when learners expect comments from outside, it is exactly extrinsic, not intrinsic, motivation that gets activated, especially when the learner is being observed. In the author’s view, in the cases when the teacher’s aim is to improve the skills of convergent thinking, an outsider’s comment can facilitate the process of a creative task fulfilment. On the other hand, when learners feel that their creativity is being evaluated, the comment from aside may act as a hindrance.

The teacher’s role in the present-day school is twofold: to facilitate the acquisition of a well-rounded education for the learner and to educate the skills and abilities of a creative approach in a wide sense, including the art of discussion, critical thinking, generating ideas, and solving problems. These high professional requirements give rise to numerous discussions on the present-day challenges

for the teaching profession. The teacher's role is changing at its very root; the 'the holder of knowledge' and presenter is being replaced by the organiser of education, provider of possibilities for learning, facilitator, partner in learning, and the very process of education is often referred to as an open space for educating creativity; thus the teacher should be capable of handling a variety of situations and managing change, alongside the processes of continuous professional growth (Gudeliënė-Gudelevičienė, Kaušylienė, 2006).

Obrazcov (2013) notes that the present-day teacher should primarily overcome personal hindrances on the way to developing creativity in oneself (lack of confidence or motivation, unwillingness to accept change, etc.); all that is indispensable in order to educate creativity in the learners. Beresnevičius (2006), while relying on the findings of other researchers in the domain of creativity education, suggested including specific courses for educating creativity, creative thinking, and problem solving into the curriculum of higher education to better enable and empower students for real-life decision making.

On the basis of the present study carried out, it can be asserted that creativity ranks high among the most frequently mentioned notions in the context of educational processes as well as in the strategic documents for education. Undoubtedly, creativity is of utmost importance alongside other professional qualities of the teacher if we seek to educate creativity in our learners. But it is rather paradoxical that the research on teacher creativity in Lithuania is really scarce. In the research of Lithuanian authors, we can mostly find analysis of only specific situations or task completion with reference to one or another aspect of creativity. Thus, the teacher's top priority should be own development of creativity to be able to offer insights into the learner's creative potential and be ready to facilitate the processes in learner creativity education, with a deep knowledge and understanding of the underlying processes and qualities, general methodology and specific techniques in educating learner creative thinking, alongside own professional growth in this area.

Grakauskaitė-Karkockienė (2016) studied the impact of teacher professional qualification and years spent in the profession on the manifestations of creativity in the teacher's job. The findings of the research led to the conclusions that teacher continuous professional development in acquiring new skills in creative education adds considerably to teacher classroom practices in educating learner creativity. Thus it is possible to assert that deliberate and purposeful effort in teacher further education serves as a means of becoming an exceptionally-well equipped professional. It was also established in the same research (Grakauskaitė-Karkockienė, 2016) that more experienced teachers, who attended special courses and had a higher professional qualification, believed that creativity could be educated.

Tijūnėlienė (2004) names all pedagogical processes as an open space for creativity education, with the teacher readiness to guide the processes in educating creativity as the central problem since teacher ability to react to different situations, to meet the learner needs, and to increase one's own expertise in creativity education, and constantly acquire new skills – all these factors play the key role. The study of the research literature convincingly demonstrates that teacher creativity is the indispensable component of the overall educational process in a broad sense; it is the creative teacher that can educate creativity in the learner.

## **Conclusions**

1. The concept of creativity, its definition and education have been widely discussed in research literature. Creativity is analysed as a complex and multi-dimensional phenomenon within the context of personality, society and culture, and it is viewed as a systemic phenomenon. On the basis of the study of research findings on creativity, it is legitimate to assert that creativity appeared in focus of researchers from different fields, and that resulted in different directions in the research of creativity. There have been attempts at designing different instruments to measure creativity, and creativity itself was related to individual abilities and thinking, also analysed as the process and outcome of creation. In the works of the representatives of confluent approach to education, the

interaction of components that can account for and/or influence creativity is emphasised. Creativity is viewed as a skill of contemporary living style, and, like any other skill, it can be encouraged or suppressed.

2. In the situation of constant change in the present-day world, the development of creativity appears of utmost importance as learners constantly face newly-emerging phenomena, and the need for life-long education becomes accompanied by the need to learn to think creatively. In research literature, the following characteristics of a creative personality are generally highlighted: fluency and coherence of thinking, originality and flexibility, curiosity, initiative and readiness to act, ability to come up with unexpected decision-making, innovative problem-solving and the like. Creativity is the ability that can and should be developed. The future of present-day society depends on how many creative personalities will be educated that are able to function in the world creatively and suggest unconventional ideas as well as shape new alternatives.

3. On the basis of the study of strategic documents for education and different sources for developing creativity, it is legitimate to assert that systemic education of creativity should find place in the system of education. There is no doubt that creativity is an essentially important quality of the teacher, indispensable for developing creativity in the learner and supporting different forms of its manifestation. Thus developing creativity in teacher education becomes one of the key factors in education, finding its place in creative approaches to problem-solving since traditional learning that is directed towards knowledge transmission and acquisition is no longer effective in future teacher education, the teacher who will act in the constantly-changing world and face unknown reality.

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### **Information about the Author**

*Inga Bertašienė – Mykolas Romeris University, PhD student in the Institute of Educational Sciences and Social Work, Vilniaus kolegija / lecturer in the Faculty of Pedagogy, University of Applied Sciences. Scientific interests: creative development, teacher training, key competences, technology-based training in higher education. [i.bertasiene@pdf.viko.lt](mailto:i.bertasiene@pdf.viko.lt)*