

## 5. CREATIVE APPROACHES IN THE EDUCATION OF STUDENTS WITH SEVERE MULTIPLE DISABILITY

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**Abstract:** The paper presents an empirical study in the area of special education, which clarifies the function of creative techniques, their application, pupils' preferences and implementation of creative techniques in the processes of special education intervention in pupils with severe multiple disability. According to the current scientific concept, creative approaches in Czech special education are represented by various applications of artistic means in education. The methodology focus of the study is quality-based. Data collection was performed by means of interviews with 40 teachers, observations of 4 pupils during education and a content analysis of educational documents of 30 pupils. The analysis was performed by means of the embedded theory approach. The paper assesses the contribution of the study to special education in a practical context as well as delivery of artistic-oriented courses.

**Key words:** creative approaches, multiple disability, special education, artistic education

### 1. Introduction

In Czech professional literature, the application of artistic techniques for the purposes of special education intervention is identified as creative approaches (Kantor et al., 2014). These are techniques of the following artistic domains: music, fine arts, drama, dance and locomotion. Professional literature describes various means of application of these techniques in case of persons with special educational needs (Müller, 2014). The significance of these techniques as facilitators of the educational process is apparent especially in pupils with considerable barriers in the educational process. This paper focuses on pupils with severe multiple disability, whose education requires significant methodological, organization and formal support.

Empirical experience of the author indicates that creative approaches in the education of persons with severe multiple disability in Czech schools are frequently applied, not only in the context of artistic courses. Creative approaches are also used in the process of re-education, stimulation, adaptation, etc. as these are important special education methods (Valenta, 2014). There is an insufficient number of research studies aimed at creative approaches applied in an educational context. In terms of special education theory we lack a description of functions of creative techniques in education and a systematization of ways in which they are applied in practice. Existing special education literature primarily contains theory taken from areas with a close interdisciplinary relationship, particularly in the area of expressive therapies.

### 2. Role of creative techniques in educating pupils with severe multiple disability

The possibility of application of creative techniques in persons with multiple disabilities relates to several key areas. Professional literature describes the positive effect on functional training, saturation of interactive and

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developmental objectives, therapy of undesirable behaviour, applications in community-type work and stimulation of an individual with severe multiple disability. The use of creative approaches in **functional training** of persons with severe multiple disability is professionally documented especially in the area of music therapy. Musical experience has a positive influence on the development of learning, mobility, perception, cognitive functions, communication and social experience. These objectives frequently appear in individual therapeutic plans of persons with health disability (Chase, 2004).

Traditional materials in the area of functional training are represented by case studies by Paul Nordoff and Clive Robbins (1980), Gertrude Orff (Voigt, 2003), but also behaviour-oriented music therapy (Hanser, 1987). The development of a functional ability is closely related to some music therapy approaches, e.g. Music Therapy Activity (Bean, Oldfield, 2001) or Instruction Music Therapy (Bruscia, 1998). From an interdisciplinary perspective, a good approach is to link musical experience and physiotherapy, which is used to reduce perceived pain, to increase motivation for movement and to promote physical activity (Davis, Gfeller, Thaut, 1999). A significant topic in functional training using creative techniques is a necessity of diagnostic and evaluation tools to capture the progress of functional ability development. This encouraged the development of a number of tools such as the Music Behavioral Scale (Skille, 2005) or Roy Grant's musical scale (Grant, in West, Saperston, Wigram, 2000).

**Development-oriented theories** of application of creative approaches are based on traditional developmental models (Stern, 1985; Bowlby, 2010, etc.) Especially the Stern's model of five stages of development of interactive patterns became the basis of interaction through fine arts (Rutten-Sarris, 2014) but also music (Aldridge, Fachner, 2010). The Stern's model is theoretically referenced in case studies of persons with multiple disability at an early age (Bunt, 2002). Similarly, Dubowski and Evans (2001) developed an intervention model entitled *Interactive Art Therapy*, in which they perform art therapy reconstruction of an emerging self of an individual based on reorganization of relationships at a presymbolic level. The developmental nature is also found in Landy's drama therapy model (Landy, in Johnson, Emunah, 2009). Other developmental theories applied in persons with severe multiple disability included the Greenspan's model of psychosocial development (Wheeler, Stulz, 2008).

**Behavioural modification techniques** represent another influential group of creative approaches used in educating persons with severe multiple disability. These techniques were used especially for the therapy of undesirable behaviour but also to promote desirable behaviour. Peters (2000) mentions examples of therapeutic objectives of behaviour-oriented creative approaches, e.g. increasing eye contact and attention, training of appropriate social behaviour, awareness of persons and objects in the surrounding environment, decreasing bizarre or self-harming behaviour, etc. A specific therapeutic model, which uses a combination of receptive music activities with physical activity experience, is the so-called

*Nurturance Therapy* (Cormier, 1982). This model uses listening to music combined with touching, swinging and other forms of stimulation in order to limit self-harm.

**Community-type work** reacts to the phenomena of deinstitutionalization and inclusion of persons with health disability – phenomena typical for the present development of special education. This type of work combines individual work with a person and community therapy, which links medical and psychosocial rehabilitation (Ans dell, 2000). This approach prefers performance methods, which have been marginalized in the context of expressive therapies. In expressive therapies, performance represents creative meetings of various groups or individuals in order to understand their identities or communities (Nash, in Sandahl, Auslander, 2005). An example of performance activities in persons with severe multiple disability is an English society Entelechy (Sandahl, Auslander, 2005). In the process of supporting artistic (especially music) production of persons with severe multiple disability a significant role is played by modern and ICT technologies. One of the current computer systems used in the Czech Republic is e.g. CYMIS (Akazawa, 2015), the effects of which on individuals with severe multiple disability are tested in domestic empirical studies.

**Stimulation use** of creative techniques is found for example in Andreas Fröhlich's basal stimulation or in the Snoezelen method (O'Neal a Velde, 2006). A significant aspect of both methods is physical and sensual experience, which is at the same time a means of mutual interaction. These methods include free experimenting with various materials, sensory experience and human contact, but also aesthetic experience. This is an inspirational basis of creative approaches because spontaneity and freedom of selection are necessary preconditions for the implementation of a creative process in persons with severe multiple disability.

Music Activities as means of cultivating children throughout the process of their personality development, in which it is important to respect and follow the regularities and patterns of children's physical and mental development, psychological features and the development of basic musical skills (Kralova in Kralova, Kołodziejski, 2015). Kralova (2015) believes that music activities contribute to better quality of life in the field of social relationships, mental and emotional wellbeing. They are functionally linked to meet individual's needs of experimentation, game, social interaction, social identification, recognition and actualization. The above presented applications of creative techniques in persons with severe multiple disability were defined according to an analysis of data available in professional literature. It might be anticipated that the educational process uses other functions of creative techniques and facilitates saturation of specific objectives concerning the education of these pupils. These preconditions form the background of an empirical study described in the following chapters. The research was realised as a part of a project IGA\_PdF\_2015\_020.

### **3. Research methodology**

The reason for the study is an insufficient number of research studies aimed at the application of creative techniques in educating pupils with severe multiple disability. In particular, there is no research that would be carried out directly in the context of the educational process. The research used a quality-based approach regarding the absence of sufficient information to perform a quantity-based empirical study and regarding the necessity to develop a basic theory. During the research we used an educational analysis based on special education intervention processes and their schemes (Kantor, 2013). The analysis of special education intervention processes in persons with severe multiple disability is a long-term research intent of the author. The theoretical design of the study allows implementation of the conclusions into the gradually establishing theory of educating persons with severe multiple disability.

**The principle research problem** was to identify in what ways creative approaches are applied in special education intervention. The following two research objectives were defined:

- To describe creative techniques that teachers use in educating pupils with severe multiple disability and their applications.
- To identify the function of creative techniques in the processes of special education intervention in persons with severe multiple disability.

**The research sample** was developed by means of purpose selection using the contacts acquired from special education centres. The criteria for the selection of school were good transport availability, simple establishment of a contact and feasibility of the research. During the research we used semi-structured interviews with 40 teachers, content analysis of educational documents of 30 pupils (30 individual plans and 30 verbal assessments) and observation of 4 pupils. The following criteria were used to include teachers in the research sample:

- The teachers are required to have Bachelor's degree in special education, as a minimum.
- The teachers need to have at least two years of practical experience with educating pupils with severe multiple disability.
- The teachers must be willing to give an interview on a voluntary basis.

The following criteria were used to select the sample of pupils:

- The pupils have serious limitations in movement, communication and mental functions (at a level of severe or deep mental retardation).
- The pupils are educated according to second part of the Framework educational programme for special basic schools.
- To ensure a degree of variability, the content analysis of educational documents included a maximum of two pupils from one educational institution, the observation included only a single pupil from one educational institution.

The data acquired from various sources (interviews, observations and educational documents) were transcribed into a written form. The data were subject to a first order reduction and adjusted for a subsequent analysis.

**Data analysis** was performed by means of the embedded theory approach. Three types of coding were performed (open, axial and selective coding). At the level of *open coding* the data material was first classified into areas relating to individual topics. Then we searched for similarities between the statements. Statements with a similar content were grouped into clusters and then classified into categories and subcategories. In categories with a sufficiently rich data material, their properties were described as well. At this stage we identified three data area relating to creative techniques and their application in the educational process – functions of creative techniques, their preferences by pupils and methods of application.

At the level of *axial coding* all data were classified according to the process model of education by Průcha (2009). This model classified education into input determinants, course and outputs of education. The categories and subcategories were classified into these basic areas. During the next stage we performed a horizontal search for associations between individual categories and tested the justification of hypothetical as well as real relationships, which exist or could exist between these categories. At the level of *selective coding* we described the processes of special education intervention. A total of 12 types of processes were identified. After a second order reduction we developed visual diagrams for these processes, which were used for clear description of individual processes. The visual diagrams showed the course of the processes during the stage of input determinants, course and outputs. The presentation of these diagrams and description of the processes is included in other papers of the author (Kantor, Ludíková, 2014; Kantor, 2014).

After the identification and description of the processes of special education intervention it was possible to conduct another analysis, which answered the research questions of this study. Firstly, we repeatedly reviewed the data material collected during the research (containing data from the interviews, observations and educational documents). We selected only those data that related to creative techniques and their application. These data were re-analysed, categories and subcategories relating to creative techniques were developed and the properties of these categories described. During the final stage the visual diagrams of the processes of special education intervention were analysed. In these diagrams we identified those statements that related to creative techniques, particularly in the area of educational outputs. Based on a logical data analysis we searched for associations between various types of special education intervention processes, functions of creative techniques and aims that can be achieved through the use of creative techniques. Further methodological aspects of the research are considered in the discussion.

#### **4. Analysis and interpretation of research results**

This part presents selected conclusions of the data analysis relevant to the research questions. The extent of the paper makes it possible to publish examples of the data material only in a limited extent. The first part describes the categories relating to creative techniques, followed by conclusions concerning the function of creative techniques and the objectives of their

application in the processes of special education intervention. The categories and subcategories will include a simple list of the numbers of participants who commented on a specific topic (the numbers are indicated in brackets).

During an analysis of statements relating to creative techniques, the categories of creative techniques were defined along with respective preferences and practical procedures of their application. In the category **Functions of creative techniques in special education intervention** the following categories of subcategories were defined: structural (17), motivational and emotional function – creative techniques promoting pleasant feelings of pupils (16), interactive function (15), function promoting the process of learning (8), stimulation function (8), communication function (8), distraction function – in case of emotional irritations (7), desensitization function (6), function promoting a positive social atmosphere in a class (4), activating function (2) and diagnostic function (1). Some subcategories were further divided:

- The subcategory of *Structural function* contained statements relating to the use of creative techniques to support pupils' orientation (15), e.g. by means of rituals, and statements relating to the use of creative techniques to get and maintain pupils' attention (3).
- An example of *Interactive function* is establishment of a contact, mutual teacher-pupil tuning, contact between the pupil and the teacher in a pleasant way, etc.
- The subcategory of *Stimulation function* included statements about the fact that many stimuli are unavailable without assistance of another person (8).
- The subcategory of *Communication function* had statements relating to greater comprehensibility of creative techniques in comparison with verbal communication (5), and signalization function (3), which means that a creative situation expresses a specific communication towards the pupil (e.g. touching might mean initiation of a contact).
- The subcategory of *Desensitization function* related to a targeted process of adaptation to some creative techniques, e.g. unpleasant sounds, touching certain material, swinging, etc.
- The subcategory of *Activating function* included statements about the use of creative techniques to activate pupils' reactions (2).
- The subcategory of *Diagnostic function* related to a possibility of diagnosing functional abilities in working with some creative techniques (1).

The category of **Preference of creative techniques** contained statements about which creative techniques pupils like and dislike. Table 1 summarizes the subcategories and some examples of stimuli and situations preferred by pupils.

Table 1: Positive preferences of creative techniques

<b>Subcategories</b>	<b>Examples</b>
Music (29)	Songs (24). Playing musical instruments (7)
Tactile experience (28)	Touching (28). Active touching of various materials (4), e.g. hair, carpet, etc.
Verbal expression (14)	Rhymes (9). Fairy-tales (4). Rhyhmization (7).

Methods with deliberate application of creative techniques (14)	Snoezelen (10). Basal stimulation (6). Watching a theatre performance (2).
Working with visual stimuli (14)	Photos, pictures (4), photos of the family and home (4). Painting (2). Working in front of a mirror (2). Teacher's drawings. Chandeliers and lights. Modelling, etc.
Sounds (13)	Acoustic toys (3). Clinking (2). Funny sounds, e.g. sounds of the human body or sounds of computer games. Pleasant and gentle sounds (triangle, jingle bells) etc.
Voice and its qualities (11)	Distinct intonation (3). Calm and positively tuned voice, etc.
Kinaesthetic, vestibular and vibration stimuli (11)	Swinging on a ball, in a hammock or on a swing (6). Positioning (2). Harmonization bed. Specific experience with vibrating objects, fast ride in a wheelchair, pulling hands, etc.
Dancing (6)	Dancing in a wheelchair (3). Unspecified dancing (3)

Some stimuli that pupils avoid include the following:

- Certain sounds (9), e.g. sudden and noisy sounds, loud music, shouting, etc.
- Certain touches (3), e.g. sudden, unexpected or strong touches.
- Contact with some materials (3), e.g. finger paints, nylon, etc.
- Strongly blinking lights.

According to the teachers' statements it was particularly difficult to engage pupils in fine arts activities due to their severe physical disability (in such case the pupils only watch the activity), but also because pupils with severe multiple disability often have weak motivation for fine arts. The category of **Procedures and methods of application of creative techniques** contained methodological advice on the application of creative techniques based on examples of good practice (Table 2).

Table 2: Procedures of application of creative techniques

<i>Areas</i>	<i>Examples of methodological procedures</i>
Touching (18)	Preferred types of touching, e.g. position on the lap (5), ball facilitation (3), tickling (3), hugging (3), pulling hair, placing objects and painting on the body Body locations where touching is pleasant, e.g. shoulder and arm (7), face, etc. Properties of touching, e.g. strength, speed, specificity, etc. Effective links between touching and rhymes
Rituals with creative techniques (14)	Creative techniques in the morning circle (12). Other rituals (3).
Integration of stimuli (8)	Integration of tactile and acoustic stimuli in addressing (5). Integration of stimuli in a multi-sensory approach to learning (4).
Physical activity and dancing experience (7)	Types of physical activity and dancing experience, e.g. aids for vestibular experience (4), dancing for immobile pupils, turning on the chair, etc.
Other techniques (7)	Mirroring of pupil activity (2), application of creative approaches is effective only in case of a kind and respectful approach to the pupil (2), commenting on situations facilitates pupil's orientation (2), use of music to create an atmosphere (1).

Recommendations for the use of rhymes and for talking to the pupil (4)	Addressing pupils by their names (3). Frequent use of modulation factors (2). Integration of non-verbal techniques during speaking and oral presentation (2), etc.
Working with sounds (3)	Bringing an acoustic stimulus closer and further away. Examples of sounds that pupils produce with their body.

In this part of the research we conducted an analysis of examples of application of creative techniques that facilitate educational situations, and an analysis of the application of creative techniques in morning circles and other rituals. After an analysis of the category relating to creative techniques it was possible to investigate the function of creative techniques in the processes of special education intervention. The total number of processes identified during the research was 12, but regarding the application of creative techniques in two cases the processes were grouped because their functions and objectives repeated in these categories. The analysis was based on visual diagrams of individual processes, which had been published in other papers (Kantor, Ludíková, 2014). These visual diagrams analysed individual statements and categories that particularly contained the outputs of these processes. A logical data analysis suggested which outputs (or other categories of in the visual diagrams) could be facilitated through the application of creative techniques. Based on the data material we searched for evidence to confirm these associations. Finally we identified associations as shown in Table 3. Each process is provided with a function taken by creative techniques and examples of objectives corresponding with the function. According to these links it is possible to assess which functions and properties of creative techniques are significant in relation to individual processes.

Table 3: Intervention processes, function of creative techniques and aims of their application

Processes	Functions	Objectives
Adaptation	Structural	Development of a structure of a daily regimen and various activities by means of rituals and presentation of topics relating to time and space structure. Activation of the pupil's attention to teacher activities.
	Distraction of attention	Distraction of attention from unpleasant perceptions related to adaptation. Avoiding techniques and situations perceived as unpleasant by the pupil.
	Development of a positive social climate / Emotional	Development of a social climate and positive emotional tuning on the part of the pupil and the teacher. Analysis of which creative techniques are perceived as pleasant by the pupil.
	Interactive / communication	Support of contact initiation and directing to other activities.
Diagnostic and evaluation	Structural	The purpose of creative techniques is to help the pupil understand a task or the requirements of a diagnostic situation.
	Activating	Creative techniques represent a tool for the pupil to react in a way which is possible for the pupil.

Interactive and communication	Structural	Getting the pupil's attention and directing it to teacher activities Development of a comprehensible interaction form for structured as well as spontaneous interaction activities. Development of a space for the pupil's favourite communication topics. Development of a form to integrate the pupil's reactions to a meaningful context.
	Activating / Interactive	Initiation of a contact and getting the pupil's reactions. Facilitation of mutual synchrony and tuning.
	Communication	Signalling of a contact. Use of creative techniques for communication and maintaining reciprocity of interaction at a non-verbal level. Communicating messages to the pupil in an emotionally comprehensible way.
	Motivational and emotional	Use of pleasant stimuli during the application of creative techniques as a mechanism aimed at intrinsic pupil motivation and rewarding the pupil's effort by a longer effect of creative techniques.
	Diagnostic	Learning about the pupil's non-verbal reactions to various stimuli and interpretation of these reactions.
Self-care	Structural	Activation of the pupil's attention to teacher activities. Development of an appropriate context for the application and training of a specific reaction. Development of an appropriate structure for repeating a reaction.
	Development of a positive social climate	Facilitation of positive emotional tuning of the pupil before training due to its demanding character.
	Activating	Creative techniques as encouragement of a desired reaction.
	Emotional	Use of pleasant stimuli during the application of creative techniques as a mechanism aimed at intrinsic pupil motivation and rewarding the pupil's effort by a longer effect of creative techniques.
	Diagnostic	Use of creative techniques for easier diagnostics of functional abilities in various areas.
Training of cognitive abilities and learning	Structural	Getting the pupil's attention. Development of an appropriate structure for repeating and training.
	Support of the learning process	Support of recalling and memory processes by means of specific coding (multisensory strategies). Simplification of learning situations and emphasising cognitive principles to support comprehension.
	Activating	Creative techniques as encouragement.
	Motivational and emotional	Use of pleasant stimuli during the application of creative techniques as a mechanism aimed at rewarding the pupil's effort by a longer effect of creative techniques.
	Diagnostic	Identification of cognitive strategies and principles in working with creative techniques and materials.

Stimulation	Structural	Directing the pupil's attention to teacher activities. Development of a pleasant and simple structure for stimulation. Maintaining a balance between new and repeated stimuli to activate attention and avoid stimuli oversaturation.
	Development of a positive social climate	Development of a positive social climate and emotional tuning of the pupil and the teacher.
	Interactive	Encouragement of the pupil's reaction and repeating the reaction (e.g. by reaction mirroring). Possibility of testing various modalities for the pupil's reaction.
	Diagnostic	Learning about individual pupil's preferences in the context of creative techniques.
Saturation of health-related needs	Structural	Development of a structure for activity, indication of its beginning and duration in case of unpleasant activities (for the pupil).
	Distraction of attention	Distraction of attention from unpleasant perceptions during the application of procedures aimed at supporting the pupil's health condition.
	Development of a positive social climate	Use of creative techniques to develop a good social climate in case unpleasant perceptions of the pupil are expected.
	Activating/emotional	Creative techniques as encouragement and positive reinforcement.
	Calming down	Creative techniques in comforting the pupil.
Influencing undesirable behaviour and coping with difficult situations	Structural	E.g. time structuring of an activity for diagnosing the frequency of monitored reactions. Time structuring of an activity to develop shorter periods, which allow concentration on the training of desirable reactions. Development of structures and context for a desirable reaction.
	Distraction of attention	Distraction of attention from unpleasant perceptions related to training.
	Activating	Creative techniques as encouragement.
	Motivational	Creative techniques as positive reinforcement (application in the context of various methods, e.g. token economy).
	Desensitization	Increasing resistance to pressure.
Personality development	Communication	Means of communication at a non-verbal level and saturation of psychosocial needs of the pupil at various levels. Validation of the pupil's personality and depiction of the pupil's character on the products of creative activities.
	Motivational and emotional	Validation of the pupil's personality and depiction of the pupil's character on the products of creative activities.
	Interactive	Facilitation of tuning to the pupil and maintaining mutual synchrony.
	Diagnostic	Creative process as a means of learning about the pupil's personality
Intervention at	Structural	Development of an activity structure.

a family level	Interactive / emotional	Possibility of sharing the content of creative activities with pupils and their families (e.g. activities of a community type – various celebrations or performances). Help the family appreciate the pupil's skills.
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## 5. Discussions

Chapter 3 defined the two objectives of this study; these objectives were resolved by means of data presented in Chapter 4. We described the functions of creative techniques used by special education teachers to educate pupils with severe multiple disability, and these functions were correlated with individual processes of special education intervention and their objectives (Table 3). Moreover, we described the data relating to the preferences of individual creative techniques (Table 1) and some methodological recommendations on the application of creative techniques based on examples of good practice (Table 2). The research study confirmed the irreplaceable role of creative techniques in educating pupils with severe multiple disability and also pointed to the variety of their functions in the process of education. The use of creative techniques in the educational process represents a significant special education method and at the same time points to important specifics of the education of pupils with severe multiple disability.

The conclusions of the research study indicate that these pupils prefer creative experience associated with sounds, music and physical perception (touching), which corresponds with the perception preconditions and possibilities of these pupils. On the contrary, the application of fine arts techniques appears very difficult. In some pupils, concerning the degree of their disability, it is impossible to perform basal fine arts activities; moreover, they have a low degree of motivation for these activities. According to teachers' experience, most favourite materials are those that can be touched or perceived in a multisensory way (materials with interesting tactile, olfactory or other properties). From a practical perspective of special education of pupils with severe multiple disability it would be desirable to develop strategies specifically for this concept of fine arts education. Some objectives of fine arts education are performed through basal stimulation methods or the Snoezelen. In pupils with severe multiple disability these methods develop basic preconditions (e.g. multilateral visual stimulation), which can be used by teachers in delivering the above mentioned fine arts activities.

From a **methodological perspective** a topic for discussion is the degree to which the categories of creative techniques match educational practice. These categories were largely based on the semi-structured interviews and their validity depends on the teachers' ability to reflect on own educational practice. An increased level of validity of the research was supported by triangulation of the interviews results with the data material acquired through observations and analysis of educational documents. The most beneficial method in terms of a general overview of the educational reality was the method of observation.

However, in the present research study this method was based only on data material of four pupils. Therefore, the author of the research study reflected on selected results of the research in the context of his own educational practice concerning pupils with severe multiple disability and also in the context of the research team at the author's department. On the other hand, the research had several strengths, e.g. strong data saturation in the semi-structured interviews.

The focus of **further research studies** could be an analysis of application of creative techniques in other groups of pupils with special educational needs. Practical applications of the results include the implementation of selected research results in educational legislation (e.g. in framework educational programmes, according to which school curricula are developed) and in undergraduate special education courses.

## 6. Conclusions

The application of creative approaches in working with persons with special needs is an area that requires a consistent theory. This paper analysed this issue in the context of education of pupils with severe multiple disability. However, further research studies aimed at other groups of individuals with special educational needs are required. As a result of numerous specifics of the educational process, special education practice might present the principles of using artistic techniques, which could also be inspiring in related interdisciplinary areas. At present, special education has a limited use of drama techniques, because drama art is not specifically defined in the Framework educational programme for special basic schools and teachers are not trained in the application of drama techniques. The conclusions may be significant in the process of development of artistic courses in school curricula. They also represent stimuli for professional undergraduate training of special education teachers.

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