Creativity is now an exposed trait. This is due to the high need for innovation, original and useful solutions that serve the development of the organization, their effective market entry and long-term survival. This publication is a collection of papers prepared under The First National Conference „CREATIVE VIBES. Kre- atywność napędzamy gospodarką“, whose aim was to stir issues concerning the significance of creativity from the point of view of the development of innovative economy, as well as to draw attention to the role of creativity in the education process of students and its impact on the development of professional competence.
THE USE OF MUSIC IN PROMOTING CREATIVITY

ABSTRACT

According to the assumptions of humanistic psychology, every person has a certain potential for creativity. This potential can be supported and developed by various types of activity. Musical exercises are a good tool to stimulate creativity. We will focus in this article on exercises based on improvisation, composition and reception of music for a specific purpose. The musical exercises which will be discussed can be used with people of different ages, for example with children and adolescents at school or in the common room, with university students as well as with adults at workshops of various types.

Keywords: creativity, exercises using music.

1. INTRODUCTION

Creativity can be supported and developed by various types of artistic activity that require mobilization of creative thinking and action. In this article, we will focus on supporting creativity through exercises with the use of music. We will discuss exercises based on improvisation, composing and reception of music for a specific purpose, which can be realized with people of different ages. The issue of promoting creativity through musical activity will be discussed in relation to the concept of creativity in humanistic psychology approach and conception of cognitive determinants of creativity by Joy Paul Guilford.

2. THEORY

According to humanistic psychology, creativity is an individual trait of a person, associated with the potential for creative action (Karwowski 2009: 18–19). This approach assumes that every person has the potential for creativity that can be developed. Creativity by humanistic psychology is associated with a person,
not with their product. The product of the creative act is rather a side effect (Florczykiewicz 2008: 16). Creativity helps to achieve development and self-realization (cf. Magda-Adamowicz 2013: 23). Erich Fromm draws our attention to the fact that creative attitude is associated with the ability to focus attention on the present moment, without thinking about the past or the future (Fromm 1959: 59–69).

As regards cognitive determinants of creativity, divergent thinking is its essential element according to the conception by Joy Paul Guilford (50s–60s of the 20th century). Divergent thinking is a way of thinking that leads to producing many alternative solutions to a problem. Convergent thinking (based on searching for one solution to a problem) is the opposite of divergent thinking and people tend to think this way (Colman 2001: 213; Runco 1999: 577–582; Shaugnessy 1996: 492–495; Tatsch; Whitten 2006: 308–309). According to Guilford, creative problem solving is associated with sensitivity to problems (the ability to identify problems), fluency (the ability to produce many ideas to solve a problem), flexibility (the ability to produce a variety of ideas) and originality (the ability to produce ideas that are rarely encountered, sometimes amazing) (Sternberg, O’Hara 1999: 251; White, Hanley 2006: 320–322).

In order to develop creativity, it is important to stimulate divergent thinking, flexibility, fluency and originality of thought. Furthermore, it is useful to develop self-reliance and spontaneity of thought and action. It is also advantageous to practise finding new applications of objects, adapting to new situations and responding to change quickly and effectively. The ability to fully focus attention on the present moment and perseverance in action are also important (cf. Pikala 2010: 103–104; cf. Karwowski 2009: 27; cf. Fromm 1959: 59–69). Supporting internal motivation plays an important role in the development of creative attitude. There are many indications that internal motivation promotes creativity, while external motivation is harmful to it (Amabile et al. 1996: 228–230).

3. PROMOTING CREATIVITY THROUGH MUSICAL EXERCISES

We will concentrate now on the use of musical exercises based on improvisation, composing and reception of music for a specific purpose in order to stimulate creativity.

Improvisatory exercises are based on creating music while playing instruments, singing or performing other musical activity. Participants create a rhythm or melody, a song or an instrumental piece in the act of spontaneous music making in real time (Bruscia 1998: 116–117). Participants of workshops can improvise on simple percussion instruments such as tambourines, maracas, drums
and others. Playing these instruments amateurishly does not require special musical skills or knowledge of musical notation, which facilitates spontaneous music-making. People can also improvise a rhythm using various percussion sounds of body, generated by clapping, stamping feet, snapping fingers and others. Mixed media improvisation consists in the use of several audio sources at the same time, for example making music with voice, a percussion instrument and stamping feet simultaneously. Improvisation can take the individual or group form (Bruscia 1998: 116–117). Kenneth E. Bruscia distinguishes non-referential and referential improvisation. Non-referential improvisation consists in music-making not referring to non-musical phenomena – the person who plays an instrument or vocalizes focuses on music only. Referential improvisation is based on music-making referring to non-musical phenomena (Bruscia 1998: 116–117). Such exercises are based on portraying or expressing for example feelings, illustrating imaginations, people, events and other non-musical phenomena with the use of an instrument’s sound or other sound sources. Improvised phenomena can be illustrated by way of playing, such as articulation, tempo, volume. The way of playing can relate to visual, auditory, psychological and other properties of improvised objects. Referential improvisation may involve, for example, natural phenomena such as animals, plants, insects, natural sounds, for example bird vocalization, sounds of a babbling brook, weather sounds, such as the sound of the rain, hail, wind and others. Emotions also may be expressed or illustrated by music. Improvisation can relate, for example, to joy, sadness, anger and others. Workshops participants can also portray people with the use of music. They can portray other workshop participants' physical or psychological features (such as temperament, way of speaking, behavior) with music (e.g. by tempo, dynamics or articulation of instrumental playing). Self-portraits can also be improvised. This exercise can be done at the beginning of workshops, when the participants do not know each other. The person who improvises their self-portrait, illustrates their own characteristics by the way they play an instrument or produce other sounds. The conducted improvisation is also worth mentioning. It consists in one person’s improvisation performed through conducting other people. The person gives directions to the others on how to play or sing (Bruscia 1998: 116–117; cf. Koniczewska-Nowak 2013: 38–47). Also the instrumental dialogue, which is a music therapy technique, is usually based on improvisation. This is a non-verbal conversation between two or more people who communicate using the sounds of instruments. The way of improvising symbolizes emotional qualities of human speech. Articulation, volume or tempo of playing refer to emotions associated with conversation. (cf. Cesarz 2012: 289–290; cf. Wigram 2004: 97). Such a conversation without words can be interpreted by listeners. Workshops participants can also non-verbally play different social roles using the sounds of instruments (for example, the role of a child, parent, student, teacher, employee and others). Referential improvisations can also be implemented as riddles in which one or more people improvise, and
the rest of the group anticipates what is being improvised. It is a well-liked form of action. Improvisation is a good exercise to fully concentrate on the present. Exercises based on improvisation also allow free self-expression, independence of action, development of spontaneity and originality of thought and action and ability to quickly and effectively adapt to new situations and respond to changes. In addition, the referential improvisation stimulates symbolic thinking, which is beneficial for creativity.

As already mentioned, workshop participants can use different sources of sound for improvisation – voice, percussion body sounds, instruments or everyday objects. They can create original instruments from simple articles, such as food cans, bottles, twigs, pots, beads and more. Exercises consisting in finding interesting sound effects, original sources of sound or ways of playing traditional instruments are a very useful way to stimulate creativity. Most everyday objects can be sources of sound – the sound can be achieved for example by tapping the furniture. Music can also be played on instruments in an original way. Finding innovative ways of playing traditional percussion instruments is also a creative activity – for example the drum can be played by tapping on the membrane by open hand, fist, fingers, nails or sticks. It can also be played by rubbing the membrane by open hand, nails, drumsticks, tapping fingers etc. or by knocking on the corps of the drum by hand, stick or in other ways. Interesting and creative sound effects can be realized through body percussion sounds and vocalizations (cf. Skowrońska-Lebecka 1995: 20–21; cf. Stasińska 1986: 11–13). These exercises are useful in developing divergent thinking, originality, flexibility and fluency of thought, the ability to find new applications of objects.

Let us now discuss the exercises based on musical composition. According to K. Bruscia (1998: 119–120), composition experiences involve creating music or elements of a music track: creation of instrumental composition, song-writing, song parodies, creation of notational system and making musical collages. Instrumental music creation is based on composition of the whole music track or its components, such as rhythm, melody, and accompaniment. Similarly, song composition is associated with making a new song or any part of the song, such as text, melody, and accompaniment. Workshop participants can create new lyrics to the original music of a song or make music to the original lyrics of a song. Creating musical collages is based on combining together various fragments of original musical works (Bruscia 1998: 119–120). As regards the selection of the instruments to compose, rhythm can be created using instruments of an unidentified height of sound, for example drums, maracas, tambourines, cymbals and many others. Melodic line can be composed with the use of voice or simple melodic instruments, such as flutes from the set of Carl Orff. Instruments playing both melody and chords are the most attractive for composing – this group of instruments includes, inter alia, harmonica, piano and guitar. Composed works can be written on pieces of paper using traditional or alternative music notation. Such
The use of music in promoting creativity

an alternative notation can consist of simple graphic signs, such as dots, lines, geometric shapes or colors. Own musical notation may be useful in performing self-made piece of music. Graphic signs can also be drawn on the piano keys or stuck to keys in the form of stickers. This helps in learning and performing musical pieces. Performed musical works can as well be recorded – this allows multiple listening. Participants can compose one track as a group, and then perform it together, using different kinds of instruments. Group work often makes an exercise more attractive and allows practicing creative work in a team (Bruscia 1998: 119–120). It is worth noticing that the participants’ musical knowledge is not necessary for amateurish musical composing or creating musical notation – exercises are aimed rather at developing people’s creative potential. Composing is a good exercise of divergent thinking, flexibility and originality of thought as well as self-reliance of thinking and action. Free composition requires self-reliance and solving problems connected with creating a new music work. Creating music is also a training of perseverance in action, because it requires more work and takes more time than improvisation.

Let us now move to discussing a group of exercises based on the reception of music. We will focus on visualizations and free associations inspired by music. We will also cover free art activities inspired by music, such as visual art activity to music (drawing, sculpture, and painting), literary works (for example writing stories, poems), choreographic exercises and pantomime productions. It is worth noting that music easily stimulates imaginative processes, activates emotions and memories, and facilitates metaphorical thinking. Music is an abstract medium, to which a listener can transmit many different meanings. Therefore music stimulates creative mental processes and creative artistic activities, such as painting or story writing (cf. Bruscia 1998: 120–125; cf. Galiańska 2005: 535; cf. Gladyszewska-Cyulko 2003: 22; cf. Grocke, Wigram 2010: 127–141). Music visualizations (imaginations) rely on the production imaginations inspired by music. Visualizations may be associated both with the sense of sight and the senses of hearing, touch, smell or taste. Workshop participants can realize completely free visualizations to music or visualizations on a topic given by the person who conducts the workshops. As regards free imagination, music is the only stimulator of the imagination in such activities. Visualizations on a specific topic may concern for example fantastic events, dreams, travels and others. The topics should be broad enough to enable individuals to use their own creative imagination. Directed visualizations are also worth mentioning. Directed visualizations consist in imagining while listening to a story told to background music illustrating it. Such an exercise may be carried out either by the person who conducts the workshops or a workshop participant. The person who tells the story can improvise a story inspired by the music – this allows running free thinking and imagination. Passive participants of the exercise should try to imagine the story told by one person. They can close their eyes (although not necessarily), which reduces visual stimuli and
facilitates production of ideas. Another exercise based on music reception is creating various free associations to music. It is a good practice of divergent thinking, flexibility, fluency and originality of thought.

Creative activities inspired by music may either be realized in the form of improvisation or they can be created for a longer time during repeated listening. Listeners' artistic activity may be an interpretation of the mood of music – individuals may express the mood of music, for example, in the form of both body gestures and facial expressions (cf. Skowrońska-Lebecka 1995: 58–61, 99–101, 109–110). Participants may also submit their mental products (associations, ideas, memories and others) inspired by music in the form of various types of artworks – visual, literary, pantomimic, theatrical, choreographic and others. Listeners can also express emotions evoked by music. Artistic activities may be improvised to music, for example in the form of free dance to music or spontaneous drawings. Such improvisations may illustrate the mood of music or be an expression of the listeners’ own emotions associated with music. Ideas or memories created under the influence of music may be an inspiration for writing a short story or presenting a theatrical performance. Music used for imaginative exercises and artistic activities should be interesting for the listeners and expressive enough to evoke emotions and imagination of the recipients and inspire them to do creative work. According to D. Grocke and T. Wigram music used for stimulating imagination should be more diverse than the music used for relaxation. Such music can have a more diverse and less predictable melody, rhythm, agogics, harmony, articulation than relaxing music. It may contain greater changes in the dynamics, less repetitive, variable texture (from thin is thick) and a variety of instruments (brass, percussion, strings). However, it should not contain sudden and frightening changes in dynamics (Grocke, Wigram 2007: 45–47; cf. Stachyra 2012: 125–126). Art activities inspired by music can be implemented individually or in a team. Individual work promotes the development of independent and creative thinking and action while teamwork helps to develop creative cooperation.

It should be added that re-creative musical exercises are less useful for developing creativity. They consist in learning and reproducing (performing) music, its fragments, parts of a musical work (for example rhythmical patterns) or performing specific actions to music. Re-creative methods include among others singing songs, playing music tracks on instruments, tapping scheduled rhythm, playing planned musical games (for example musical chairs), presenting planned musical-dramatic actions and performing other activities structured by music (Bruscia 1998: 117–119). Although re-creative exercises do not usually require spontaneity or originality, the person reproducing the music sometimes activates, to some extent, creative thinking when they interpret the music track. The same piece of music can be interpreted in many different ways.

It should be noted that attitude and behavior of the person who conducts workshops are also important for the effectiveness of exercises stimulating
The use of music in promoting creativity

creativity. The workshop leader should accept participants' ideas, act flexibly, be aware of the purpose of each exercise and create the atmosphere promoting cooperation (cf. Bieluga 2009: 81–82).

4. SUMMARY

To summarize the above discussion, it is worth recalling that musical exercises based on improvisation, composing and reception of music for a specific purpose can be used for stimulating divergent thinking, fluency, flexibility and originality of thinking. Musical activities can also be used for developing ability to find new applications of objects and the ability to quickly and effectively respond to changes and adapt to new situations. Such exercises can also be beneficial to practicing the ability to focus on the present and for the development of spontaneity and independence of thinking and action. It should also be mentioned that music is a good stimulator of imaginative and emotional processes and thus music can be good inspiration to realization of artistic activity (drawing, sculpture, dance, storytelling, etc.).

REFERENCES

Bieluga K. (2009), Rozpoznawanie i stymulowanie cech inteligencji oraz myślenia twórczego w domu i w szkole, Oficyna Wydawnicza Impuls, Kraków.
Florczykiewicz J. (2008), Kreatywność a procesy adaptacji społecznej, Wydawnictwo Akademii Podlaskiej, Siedlce.
Konieczna-Nowak L. (2013), Wprowadzenie do muzykoterapii, Oficyna Wydawnicza Impuls, Kraków.
Magda-Adamowicz M., Children’s creativity in a systematic perspective, Wydawnictwo Adam Marszałek, Toruń 2013.
Olczak M., Trening twórczości – współczesna i efektowna forma wychowania przez sztukę, Oficyna Wydawnicza Impuls, Kraków 2010.

**AUTHOR NOTE**

Alicja Ryczkowska, MA (Department of Musicology, University of Wrocław) – music therapist and musicologist, Ph.D. candidate at the University of Wrocław in the Department of Musicology. Her scientific interests are concentrated around the psychology of music, music therapy and history of music.
Management

Creativity and Innovation in Business and Education

edited by Jolanta Bieńskowska