



Music Notation and Creative Pedagogy

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Abstract

The music notation, particularly during the last century, may be used as a tool for the development of creative pedagogy.

The author of this paper introduces a report on educational experiences with pupils in Primary School, where, through the observation of important paintings of famous artists of the XXth century, the students try new ways to read and to write music and begin to carry out a different score for new and original musical compositions.

Many musical and pictographic examples, composed and performed directly by children will be presented. Composing music is an element of education that leads to the fundamental processes of designing, imagining, observing, listening and synthesizing the musical experience in a pedagogic context.

This musical experience, built on creative pedagogy, has the goal to transform the process into a "creative" teaching/learning process that contributes to each individual's global education and promotes communicative, cognitive, cultural, aesthetic and emotional functions.

1. Music and Creative Pedagogy

Nowadays, creativity can be understood as an innate potential that everyone needs to exercise in order to grow. This creative potential can be expressed at every age [1]. To create doesn't mean to invent: to create means to elaborate again the reality, to dismember it and then to reassemble information about it and parts of it, to give new and different answers to problems [2].

According to most psychologists, creativity can be everywhere, in products, people, processes, organizations and environments, where elasticity, originality, fluency and flexibility can be found [3].

In recent decades, psychological studies on creativity have focused on the possibility of developing teaching methods and new educational techniques [4].

It is a matter of fact that music promotes the conditions for the development of creativity and also multiplies the individual's creative potentialities benefiting society.

Music has a very little space in the Italian school curriculum. The situation is exacerbated by the cuts that have been recently imposed upon school finances and by reduction of the staff quota. Children and teenagers have potentials that are not still really praised and valued by society. They possess hidden treasures that their education often leaves unexplored. They don't have organized spaces and allotted times to practice and develop their own potential and to achieve individual self-fulfilment.

Since 1996, interesting accomplishments have been reached to promote general education based on music creative process in many and various public schools in Naples carried out in cooperation with NaturalMenteMusica C.I.D.M. (Center of Musical Didactic Initiatives) [5]. The results of such achievements should encourage everyone to hope for a greater investment in education, especially by using music for the development of creativity: this means an investment in culture and an investment in society to ensure the formative growth and the awareness of our future generation. In other words, it should provide a setting with a solid foundation for the rebirth of society as a whole.

2. The Creative Process in Musical Approach

Music offers a solid basis for a general education unrivalled by any other subject.



The remarkable pedagogical value of music has its roots in the creative and interdisciplinary character of the formative process, identified as problem solving context, which becomes itself an exercise of convergent and divergent thinking.

To carry out the creative process is a central focus of music education [6]: the basic goal is to place emphasis on creative thinking and to motivate learning through activities.

In the learning activities, students work to solve problems and teachers take on the role of facilitators of knowledge. Music teachers must help students gain the ability to hear music in their heads and increasingly manipulate the sounds in new ways. Children need to explore, manipulate, experiment, question, and find out answers for themselves: activities are essential. The search for an aesthetically acceptable musical creation develops the ability to generate a number of possible solutions before getting to a final product.

The music creative process in a pedagogic context consists in the process of "doing", where music is understood as playing, producing, expressing, communicating, exploring and stimulating inside and outside behaviour, thus representing a valuable opportunity for growth [7].

Composing music is an element of education that leads to the fundamental processes of designing, imagining, observing, listening and synthesizing the musical experience in a pedagogic perspective.

This creative music approach has encouraged children to become aware of their own surroundings and the objects of daily life, to contextualize and then to de-contextualize and to re-contextualize, to de-construct and to re-construct, participating as well in the effort to find interesting and stimulating points of view.

3. Music Notation and Creative Pedagogy

Since the earliest years of the 20th century, composers have introduced wide range of new sounds and new ways of using sound: they obtain unusual sounds and new instrumental timbres through the use of non-traditional instrumental techniques and the research of unconventional instrumentations.

This New Music reflected new ways of thinking in sound and musical structure. Furthermore, the traditional notation was increasingly unable to represent the new sounds that composers were already using.

For this reason, composers began to write their own notations and started to use graphic representations of new types of sounds [8].

The new notation systems vary from piece to piece and admit various interpretations indicating only approximately pitch, duration and dynamic relations.

In the new ways of writing music, the musical elements are mixed with colours, shapes and perspective effects, creating a more visual and immediate way of representing sounds and words, thickness and colours, lines, dots, spots and clouds, idiomatic symbols, ideographic images.

Notation systems that use uncommon signs in shape, size, depth, are certainly more attractive, inviting and charming for children.

Informal writing makes musical notation a spectacle like the language of television [9].

This new music concept makes it closer to reality for everyone, and makes it possible to interact or to be a composer, even for a child.

The contemporary notation provides more intuitive and more "operational" forms of notation. Taken itself as a stimulation and suggestion score, this notation allows to save a graphic trace of the sounds, even without any musical knowledge, but mainly using perceptual and sensorial aspects of the sound, disputing that only the highest levels of music education allow a musical composition approach. Moreover, many factors comparable to the Piaget's stages of intellectual development can be found [10].

The *musique concrète* is essentially intended as an acoustic research that implements a sensorial approach to the sound: indeed we can find the same research and exploration of objects and environments, typical of the child's behaviour.

The child's stages of intellectual development are reflected in the perceptive and interpretative modalities of the new symbol-system notation [11]:

- the concrete thinking can be found in discovery, exploration and experimentation with various materials;
- the intuitive thinking is found when interpreting traces, symbols, shapes and colours;
- the symbolic thinking is found to decode and to develop personal codes, and to compose.

Based on a highly symbolic language, the new notation takes on and promotes a powerful creative factor as well as in the composition and in the interpretation: it can be considered as "exercises of imagination" and it can offer new operative ways to develop interdisciplinary processes. For these reasons, the new notation and suitable material for the preparation of projects and for the creation of educational pathways can be preferred, particularly with children who don't know the traditional notation.



The educational work with contemporary classical music is desirable not only because it develops essential knowledge, but also because it allows children to do it while walking in all directions in which they are able to walk, not just one or two [12].

4. Music Experiences [13]

4. 1. *Music composition with ideographic notation*

Activity on the individual composition, carried out at school (36 h) with 48 children (age: 8)

Prerequisites (teamwork)

No musical knowledge:

basic musical skills have been developed in practical, goal-oriented tasks

Stage 1: Analysis (teamwork)

- Research of sound sources
- Description of sounds (and noises)
- Examination of musical parameters (pitch, dynamics, duration, timbre).

Stage 2: Encoding (teamwork)

- Development of graphic lines to represent the sounds [14]
- Sign/gesture/sound relationship
- Interpretation of graphic lines with "traditional" musical instruments

Stage 3: Composition (individual)

- Wording of mental representation
- Title of composition
- Ideation of the most appropriate sonorities
- Association of instruments described in the legend
- Choice of colours, shapes and orientations
- Writing a score of a new and original music composition (using the space-time graphics above developed)

Stage 4: Verification (teamwork)

- Choosing and dividing roles
- Rehearsing created score
- Searching (and testing) further possible solutions
- Performance of the composition
- Registration

4. 2. *Music composition with conceptual and pictographic notation*

"Composition for Kandisky"

Activity on the composition by teamwork, carried out at school (36 h) with 36 children (age: 9)

Prerequisites (teamwork)

No musical knowledge:

basic musical skills have been developed in practical, goal-oriented tasks

Stage 1: Analysis of the painting (teamwork)

- Presentation of the Kandisky's painting "The Arrow" [15]
- Segmentation into semantic units
- Interpretation of semantic units through brainstorming [16]
- Choice of a shared and predominant sense among those evoked by each semantic unit
- Organization of a short story through reading of orientation of semantic units

Stage 2: Composition (individual)

- More appropriate sonorities ideation for each semantic unit
- Associations of instruments (including voice and objects) and development of instrumental techniques



- Create a legend of ideographics and pictographics symbols
- Choice of colours, shapes and space-time orientations as to the desired musical result
- Creating a score of a new and original music composition as a new and beautiful image

Stage 3: Verification (teamwork)

- Choosing and dividing roles
- Rehearsing created score
- Searching (and testing) further possible reading solutions [17]
- Redefinition of the score changing technical or timbres instrumental [18]
- Performance of the composition
- Registration

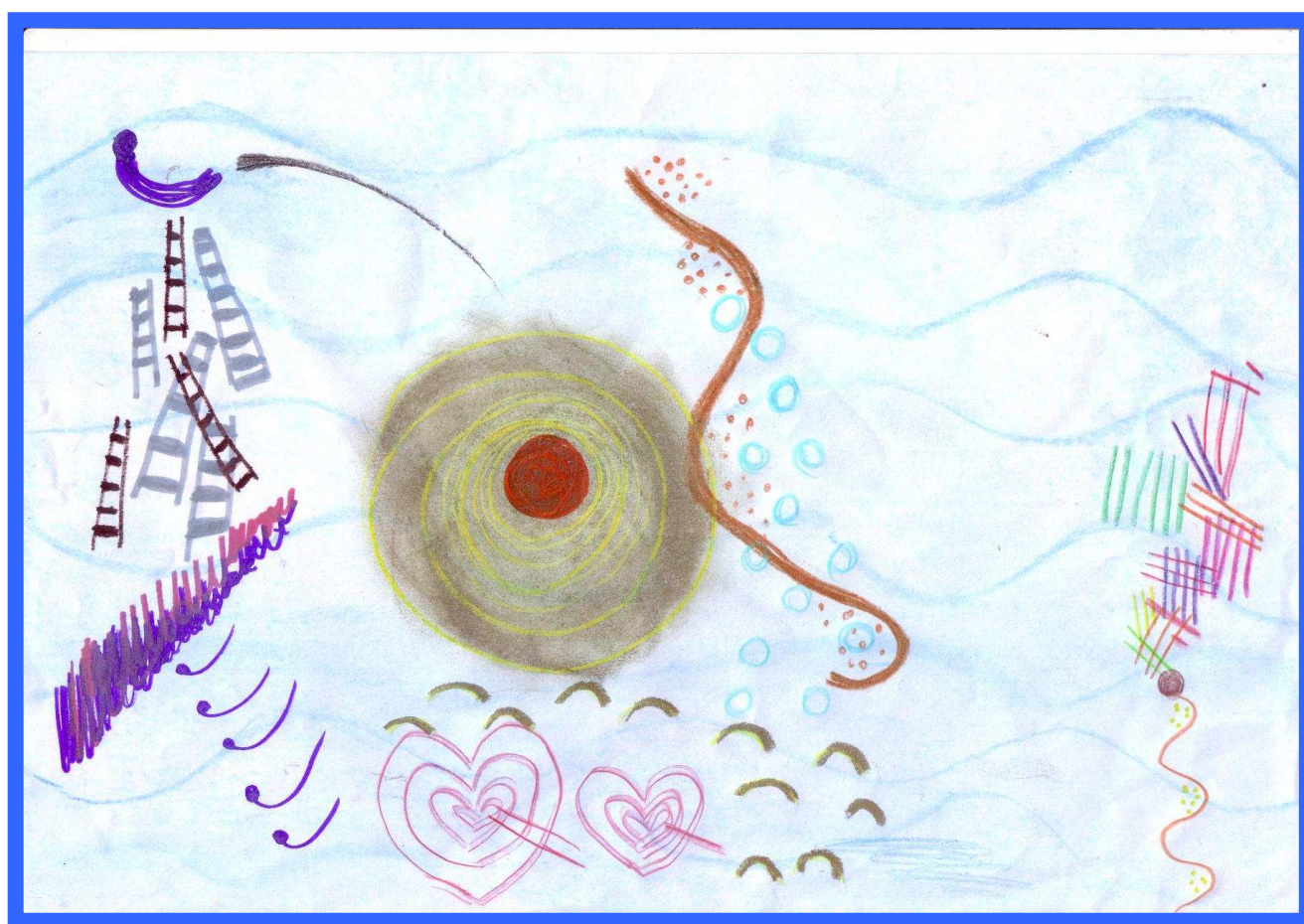


Fig. 1, Example of musical score written and performed directly by children.
The conceptual and pictographic notation refers to pictorial representations of sounds, evoked by Kandinsky's painting.

5. Conclusions

This musical experience, built on creative pedagogy, has the goal to transform the process into a “creative” teaching/learning process that contributes to each individual's global education and promotes communicative, cognitive, cultural, aesthetic and emotional functions.

The resulting individual discovery, problem-solving and manual skills have been developed through a



process of logical operations that have promoted the active participation of the musical experience not only in a receptive, but also in an expressive and a communicative way.

The creation of simple musical compositions increases the educational value, offers further space to the creative potential of the individual and of the group, opening also the way to the development of aspects more pertinent to the areas of emotions and relationships. The process of "doing" encourages self-reflection and self-evaluation, strengthening the identity and the sense of cooperation among those taking part.

The little pupils develop interdisciplinary skills, cognitive and metacognitive competences and, through their active participation in the discovery of all kinds of sounds, they are able to conquer the fundamental abilities necessary to express themselves musically, and in so doing they immediately gain the joy of "making music together".

This experience develops rhythmic sense and coordination, encourages new hobbies and activities, gives the opportunity to have fun and to develop good relationships.

Furthermore these activities really contribute to an improved connection between home, school and outside school.

The musical experiments with the graphic music composition are considered as an appealing open project because of its formative nature and different applications: a creative pedagogy which doesn't transmit a static culture but provides the means of new thinking processes and new interactions with the surroundings.

References

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- [11] F. Delalande, *Le condotte musicali. Comportamenti e motivazioni del fare e ascoltare musica*, CLUEB, Bologna, 1993. See also F. Mazzoli, *I bambini e le scritture*, cit., pp.18-19.
- [12] G. Rodari, *Esercizi di fantasia*, Editori Riuniti, Roma, p.82.
- [13] These experiences have been accomplished in 2008 at Primary School "33° Circolo Didattico" of Naples.
- [14] Each symbol is featured by simplicity and immediacy of communication.
- [15] The semiotic interpretation of the painting was created by children in a reverse orientation.
- [16] The brainstorming session was audio recorded.
- [17] The children's group perform any or all of these possibilities, listens to the results, change solutions, decide to change instruments or technical way of using it or another timbre. The player should perform with a great variety of sounds from phrase to phrase, using varying dynamics, expressive envelopes, slow vibrato, a bowed tremolo, repeated single pizzicato, etc. A recording could be made so that you can exercise some criticism over the results in order to raise your expectations.



[18] Moreover, the group decides to read the score from right to left and inside out and also to change the sound scraped on the guitar with the sound scraped on the piano tailpiece.