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CONFERENCE TITLE

Music in Schools: Teaching and Learning Processes

SUBTITLES

Teaching methods and didactic materials used during music lessons

Workshop Title

DominoesDominium: playful tools for ...

Introduction: before the lesson-game

Aiutare ciò che procede da solo (Lao Tzu) ¹

1, 2, 3, are numbers, we know them, like ○♦□☀☼♥▲●☺★√ are different symbols and signs that we know too. But to use them in musical ways, we need to observe and “listen to” them from different points of view than those established by habit. To do this, it is useful to draw them, colour, cut, stamp, combine them, etc. After that, we need to think again about them and the criteria that guided our acts of manipulating them. It is not necessary to invent new objects to discover new materials for playing: it is useful look at the usual ones from different perspectives, both critical as open. This is what I mean: “Questioning the material”, this is my methodological approach to a new project.

To give you a simple example of what I mean by the previous statement, I suggest you to spread out the objects you chose to work with on your workspace and to observe and

¹ Jullien, F. (2006). *Pensare l'efficacia in Cina e in Occidente (Thinking efficacy in China and in the West)*. Roma-Bari: Laterza, p. 47: “Helping what proceeds on its own”.

listen to them, in a conscious way, while you are moving them, changing their order or other their characteristics. So, following the different dispositions or features of the materials, our mind changes too. When I prepare to work in a new context or in different settings, I also need to change my tools, my perspective, even if I have to teach the same thing I recently taught in another context.

Games and playing are contexts of a specific learning-teaching philosophy: working to discover and manage old and new relationships between us (as subjects), objects (as other-from-us) belonging to our common environment, where the actions are functionally inter-related and understandable for every players. Perceptual and movement experiences, until uses of abstract languages, are all acts possible and logic, spontaneously, in game form. It is typical of the music experience too, mixing materials, criteria, strategies and practices, instruments and conceptual structures, at every level.

A synergy of aspects, also in the music educational experience, offers many entering accesses without losing the coherence of the context: an important part of music learning problems do not need a gradually organized way to follow. On the contrary, as many situations of learning show more possibilities of access, the problem is finding a coherent and functional starting point (not “the right” but a effective choice), whatever is available, if it is wavelength on the context, i.e. opportune (I remember the ancient Greeks concept of *καιρός*, i.e. what is convenient, harmonious, well-measured in a situation). This is a typical characteristic of activities in game form. Naturally, the pre-condition for access in a game, even a music one, is participating with the conventional rules of its codes, to understand its symbols and structures, and the ways to play.

As for the rest, it is impossible to find, in the same working situations, the “right” time for every member of the group, similar levels of expertise, the same knowledge about the subject, equal physical, cognitive and emotional conditions for everyone, etc. We can hope, instead, to choose a door sufficiently open for everybody, for the different point of view of every person involved. Games offer us ways to musically think and play the “Chaos” of the non-organized, unpredictable real learning situations, structuring for us a special time in a particular space, where differences are not only well accepted but also useful for everyone, and everyone contributes to creating the order of the experience.

DominoesDominium (DD), as many other learning-teaching tools, is based on “classic” psychological studies of memory, especially on working-memory, attention and perception processes, educational practices of reading in time, in groups, improvisation, as well as meta-cognitive functions related to the control of our learning processes, or preferences of cognitive style, to optimize strategies of performing, memorizing, to focusing attention and maintaining it, in order to clearly detect input and organize it in well-structured forms, which are significant for pupils and immediately accessible for them, in efficient listening and visual conditions.

The project: playing music creativity

DominoesDominium is a longstanding research project to create and develop tools for creativity in game form. The first time I created something like this was when, more than 10 years ago, I was working with a group of Primary School teachers, organizing sequences

that pupils could play in time extemporaneously, using movements which produced different sounds. I used simple photocopy papers placed in a line along the edge of school desks, drawn with essential signs representing ordinary sound events: following this sequence as a simple music structure, we created a rhythmic walking, during which pupils could make sounds by clapping hands, bouncing a ball, striking different sound objects, not only musical instruments, while still moving along the “score”. So, I thought that it would be easy, changing the signs on the papers (for kind, number or colour), to create new possible combinations every time, and let the pupils free to find them, by manipulating the cards.

Also today, I think we cannot always control the possible combinations, but materials start learning processes, as doors, if they are “cleaned”, essential, clear, easy to understand, well defined as well as open to new or unexpected developments. Tools for learning need to allow our energies, ideas, emotions, suggestions to be free, at the beginning of the process, and then to organize them through the music game experience. It is not a matter of simply having fun, amusing our pupils, but finding the breath of time and defining the space² where we can change our mind, or our point of view by learning, by listening or performing music.

This way of playing puts together aspects concerning composition (of music or only combining sounds too), music performing (through body movements, gestures, vocal or instrumental sounds, concrete sounds, etc.), rhythmic organisation in time, playing in a group, and more: choosing tools to write down our music experience, to re-organize it, reproduce, “manipulate”, change it, every time starting from different points of view.

So, DD has been experimented with for more than 10 years in very different contexts and settings. In fact, it does not need the same setting and the same materials every time, on the contrary, it can be played in very different conditions and situations. In fact I used a different version of it every time, to better adapt to the context (also thematic one, for example, in a music educational or training project), such as different series of cards (concrete), or in different computer forms. These last forms let me focus on reading problems, especially when a sort of animated score is used. I realized that it is better to let the performer move instead of following an “animated” writing. We may think it is a paradox, but if we use moving writing (for example animating the musical figures/score) we increase problems reading and managing timing efficiently for the player.

In this way I could take what is, in my opinion, one of the most important aspects of the music performance, reading in time, more clearly in consideration: managing a good relationship between following the score and the timing of the global performance, a sort of streaming of the complex of actions which the performance itself is structured. Indeed, a music student must manage many different time dimensions, while s/he is playing.

Another interesting question concerns the reading process playing in a group. “Socializing” the score is one of the other useful resources that DD offers. In fact, using one of the various series of concrete cards (it depends also on the sound content of the performance), every member of the playing group can read, at the same time, the score, looking at its every part. Cards are large enough to do it easily even from a distance. It is not the same as reading from a blackboard: DD cards can be put on the table or on the ground, leaving people free to move and be able to read following different directions, for example, without losing sight of the parts played from the others. This aspect is particularly useful

² For the psychological notion of space (and context), especially as *vital space*, see: Lewin, K. (1951) *Field Theory in Social Science*. New York: Harper&Bros

when, especially working with children, we need them to practice large movements or gestures to produce their sounds and music structures. Freedom in the relationship with space, I have often observed, can improve the many different dimensions of the time experience for people who are performing, reading and improvising music, using these materials.

DD has been used with heterogeneous people, casually grouped and of all ages. So, I realized that DD can be used successfully also for people grouped for a short time, of all ages too. DD raises a direct motivation so that game participants are spontaneously evolved in the activity (and a good rhythm results in this way) and their attention and memory levels remain high and continuous, during the performance. This is a very advisable condition to work in, without losing time and energy in non-musical activities that take away resources from music experience. A large part of teaching-learning problems are related to a context of work not evolving pupils in an efficient stream of music activity.

For the same reason, DD is structured so that instructions do not need many words: the game, however it may be played, does not need a considerable action on the part of the teacher: simple (immediately understandable) and flexible (to be adapted to the setting and the characteristics of the players) rules, make DD a powerful tool to work with in very different contexts, without strict pre-conditions.

DD is structured on many different levels: they can be as many as the players can create; people are willingly involved in the game which is both engaging and enjoyable. So, it is equally useful in directive and non-directive teaching practices. The game is open to change and players can adapt it to their needs in infinite creative ways.

The game, presented in the Eas Congress 2011 workshop, is a really simple game based on rules in both individual games and group games, and it is inspired by card games and dominoes. Using these game materials came from the necessity of manipulating pleasant, coloured and intuitive objects, which are easy to use and understand. Users-players were able to produce rich and various contexts differently using DD. The result was familiar but, at the same time, strongly engaging.

The typical playing situation creates a context where space and time dimensions are consciously special, apart from usual, real conditions, so the learning context presents similar characteristics, coming from the metaphoric didactic action that changes content of living experience into knowledge which is available and appropriate for students³. In other words, in the same way as psychological conditions we have in playing games, learning contexts are a special context, dedicated to “playing the change” of our mind. Consequently, teaching processes inspired by games are very useful.

DD can be played both individually and in groups. It can be used with all ages, even without knowledge of music. It aims to create and develop tools for playing creatively, e.g. finding a harmonious group rhythm, performing extemporaneously, step by step, on many complex levels and ways, reading the same composition in different ways, training memory and attention, teaching players without words to compose new sound events every time.

This project was also created to find functional tools to manage the complexity (cognitive, emotional, psycho-motor, cultural) of music learning, and to demonstrate how useful music study can be in the general development of a person, i.e. we can say that thinking about general education means *thinking in music*.

3 Concerning the medial nature of didactic action, see: Damiano, E. (1993). *L'azione didattica. Per una teoria dell'insegnamento (Didactic action. Toward a theory of teaching)*. Roma: Armando.

DD offers fun opportunities to find and practise tools to manage the complexity and to demonstrate how useful the extemporaneous music can also be in the general development of a person in social dimensions. The playful environment of reading and performing music can be useful to create a psychological advantage in group work (e.g. it can be used to break the ice at the beginning of an activity and generally to create group harmony functional to music performance).

It is also useful if you have to train music students in complex abilities. This playful context can be considered a powerful tool to develop creativity (not only musical), in both scholastic and non-scholastic environments, that is, in infinite educational situations.

I probably started thinking about this kind of game, when I began to realize how much time, and time experience, is crucial/critical in every music practice, so we need to train our musical time experience, and it is even better if it is in game form.

The relationship between time (and space) and games is a well-known aspect.

The material: notes

As said above, the first simple version of DD was made using photocopies where I wrote easy symbols, numbers, music figures. The most important aspects in that first experience were: easiness of reading, during practice, freedom of movement in the performance, intuitiveness in changing and composing the sequences.

From this first idea, I created the “ground version” walking, which was better to allow pupils, especially children, free to move in the play space. Doing this version, I thought about the Italian game of “Campanòn⁴”. This sound walk or music walk is useful to improve the relationship with space and, in this specific case, with music space and time. Pupils read and move in every possible direction, going beyond the strict rule of reading (from left to right). This is an important advantage when, in front of a music score, we have to simultaneously manage the different directions of time that music practice and reading imposes on us.

I also thought of this version for pupils in difficult situations: the *macroscopia* of the “score”, implying body actions and large movements to be read and played, help music performance and awareness, in those cases where thin coordination is difficult and pupils need to improve their relationship with the body, space, time, geometry of the classroom, group, etc.

Another significant aspect of these materials concerns the choice of symbols and colours. Using DD, I change the pictures on the cards almost every time, sometimes I ask pupils to draw or choose the signs they think are the most appropriate or they like best, always following the relationship between them and the sound events represented. I use numbers, simple geometric figures (circles, triangles, squares, etc.), icons specifically related with, for example, the source of the sound (which can be recalled immediately), musical or other symbols (letters of the alphabet, words, sentences, “smiles”, etc.).

In the same way, I adapted the choice of colours, following criteria like: relating

⁴ In Italy, we name "Campanòn" an ancient game (generally played on open air) where children, using a chalk on the ground, sidewalk, floor, sign tracks to jump inside, by following rules of path. For example, their feet cannot touch the signed lines while they are jumping into them.

colours (or their different characteristics) with significant aspects of the sound source; using colours to recall different psycho-physiological, emotional conditions⁵; organizing, using colours as labels, the experience, classifying, categorizing materials.

Conclusions

Professional music teachers that had the opportunity to use these tools gave me positive feedback about them. In the workshop of this congress, we could test DD in very new different ways, for example, singing simple pentatonic sequences coordinated with playing easy body percussions and verbal sound, creating two/three part improvisations. I observed every time that in a few minutes a heterogeneous ensemble of people becomes a music playing group and the attention and memorizing levels become high. This is an important goal for me because I trust in simple, “clean” and flexible didactics, pleasant but able to start the main well-trained functions a musician needs when s/he plays and, generally, pupils would practice learning music for their personal development. They are the same: music “trains” life.

I am convinced that grammar and syntax of music can be taught leaving pupils free to discover them by practicing music in creative ways, playing with the different possibilities of the rules they know (whether there be many or few), directly applying them to their tools, materials, instruments. I always tried to find perceptual, listenable ways to combine, change, and compose music structures: to musically think and play. Too many verbal explanations are suspicious: adequate tools to think music and to do it, do not need many words, and the infinity of sounds we can discover, first of all, in our minds.

(To my mother, who taught me that learning and teaching in school must be the joy in work)

Note for references: this work refers to many psychological, pedagogical and didactic contributions that belong to “classic” professional areas of knowledge. So I preferred to give a list strictly related to specific contributions for the subjects, not useful to have a complete view of the matter but to cut the contents following the perspective I mean.

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⁵ Concerning colour and our psycho – physiological experience related to it, see Lüscher, M. (1993) *La diagnostica Lüscher. I colori della nostra personalità*. Roma: Astrolabio

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