TRADITION AND MODERNITY: NEW SOUND PROPOSALS FROM THE MUSIC SCHOOLS OF THE FEDERATION OF MUSICAL SOCIETIES OF THE VALENCIAN COMMUNITY

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Abstract

Background: The Federation of Musical Societies of the Valencian Community (FSMCV) is a democratic association created 50 years ago, which represents and supports the 550 associations that make it up, with the aim of promoting, disseminating and teaching music. It promotes associationism and provides society with a way of developing cultural articulation, mainly developing its activities within the Valencian Community, although its national and international activity is very remarkable.

Methodology: This article based on a prospective study using a qualitative methodology analyzes one of the proposals made to commemorate the 50th anniversary of the FSMCV through the use and application of the collaborative creation system Soundcool where more than 100 students from music schools in the Valencian Community played with their own mobile devices. In order to obtain the results of this study: unstructured interviews; focus group; participant observation and analysis of the audiovisual material collected through the different previous preparation meetings were taken into account, as well as the product of the final perforation collected by the researchers.

Main Findings: The results obtained with the introduction of creative elements and strategies through new digital tools such as Soundcool, allow new spaces in the teaching of music students further integrating contemporary languages and creativity, as well as promoting their digital competence.

Implications: Also with this type of proposals through the FSMCV, we reinforce the creative commitment through the production of sound by students of music schools.

Keywords: Soundcool, FSMCV, music creation, sound design, collaborative pedagogy, contemporary music, landscapes fiction, mobile devices.

INTRODUCTION

The Federation of Musical Societies of the Valencian Community (FSMCV) is a democratic association created 50 years ago, which represents and provides support to the 550 associations that integrate it, has the goal of promoting, spreading, and teaching music. It promotes associations and provides society with a way of developing cultural articulation, mainly carrying out its activities within the Valencian Community, although its activity at a national and international level is very notable.

The musical societies devise educational, social and cultural projects that include symphonic bands, orchestras, choirs, dance groups, chamber music groups, instrumental ensembles, big bands and Valencian folk music groups. This kind of non-profit associations hasn’t stopped growing since the end of the 19th century. The federation aims to spread the importance of the cultural heritage of the Valencian people, supporting the development of civil society through musical societies, promoting their growth, diversification, internationalization, improvement and excellence, both in its pedagogical musical work and in its socio-cultural activity.

It holds 550 musical societies of which 3% are more than 200 years old and 30% are centenarians; musical societies that in turn have 1,686 artistic formations (1,075 bands, 174 orchestras, 233 choirs and 133 chamber groups, as well as 52 big bands and 19 popular music groups).

This association works within the Valencian Community and its 542 municipalities. The FSMCV brings together more than 50,000 musicians, 60,000 students in music schools, 4,000 teachers and 200,000 members, who are present in 90% of the municipalities with more than 200 inhabitants. But this does not represent the totality of the Valencian musical organisations, since there is a federation of choirs with 116 choirs and another of dulzaina and tabal (folk instruments) with 75 groups, as well as other non-federated musical groups.

The federation has around 600 educational centers between schools of students (music schools that work through volunteering), music schools (not municipal), recognized centers (private conservatories) and an integrated center (musical studies), that cater to all types of students no matter their age, social or economic background.

All this is managed by a board of directors that works without receiving anything in return. Without the contribution of this group, the Valencian public network wouldn’t have been able to support all the potential of Valencian musicians.
Those students who wish to continue professional studies can do so in the same authorized centers or in the conservatories of the public network. It must be said that the high numbers of bands and their extraordinary skills are what has really pushed forward the Valencian musical phenomenon for many years.

Most of the musical societies and their corresponding musical groups are located in rural areas (75%). It's apparent that the Valencian musical societies have allowed the socialization of music education throughout the territory (Asensi, 2010). This model originated as the bands' popularity started to rise and the need to have a training school. For this reason, the FSMCV does not recognize as a member musical groups that don't have a music school.

Music schools have been, since the 19th century, a historic milestone for their educational commitment and the thousands of students who have passed through them for more than a century (Morant, 2013). These educational centers represented, from a social perspective, the democratization of music education, since it allowed many small towns to access it. The federation aims to make music schools an educational project of their own, distinguished from other models of regulated education, with proposals for non-formal musical education throughout life, in constant pedagogical renewal and continuous research supported by adequate funding of the administration and with sponsorship and patronage policies.

However, even with the commitment of the federation for the diversification of musical practices in schools and its clear support for the use of new contemporary languages, a certain opposition to incorporate these practices into their pedagogical baggage was observed on the teaching staff and students (Mateo, 2007; Urrutia, 2012).

Currently, because of basic training in conservatories, there is still a considerable gap between what is taught in music schools and the ideal pedagogical practices that standardize most contemporary languages and the real commitment to develop creativity and the use of new technologies (Burnard & Murphy, 2017).

In our contemporary society, this type of languages and the incorporation of technology would make it possible to diversify the training offer, as well as to equip students with real knowledge that they'll require in the future.

For this reason, this prospective study using a qualitative methodology aims to clarify what may be the causes that determine the opposition we observed when incorporating pedagogical practices focused on creativity through the use of new technologies.

Having witnessed this reluctance, we propose the following research questions:

- Can Soundcool be used as a technological tool that allows us to merge the existing method with a pedagogy more in line with these times?
- If so, what elements facilitate its implementation in music schools when it comes to student training?

In any case, we are interested in knowing what kind of difficulties do teachers and students face when presented with a sound creation proposal such as the one in this research.

- Does the technology facilitate or complicate the creation of proposals such as the Guerrero de la Valltorta?
- Does it generate acceptance or rejection of sound creation through the creation of a contemporary musical language?

DESCRIPTION OF THE PROPOSAL

The idea of celebrating the 50th anniversary of the FSMCV emerged from the agreement of its collective and was considered an opportunity to recognize the enormous volunteer work that still exists after 50 years of activity and work for music education.

The performances to be produced were distributed between the end of 2017 and 2018, first remembering the foundation of the federation and then with a series of activities whose objective was to pay homage to the group of amateur musicians, managers and societies that comprise it and also to the students, teachers and workers of its network of music schools and other educational centers. It is worth highlighting the shows held in the bullring of Castellón and Alicante, which are the object of study in this research, but also the gathering of 20,000 musicians in the Mestalla football field and all the Guinness beaten records, the International Seminar of Research in Musical Education and Artistic Creativity and the concerts of the young symphony orchestra and the young symphonic band of the FSMCV. In all cases, musical activities were planned in which the interpreters were the assistants themselves and for that, compositions, adaptations and arrangements for each of the performances were commissioned, in which most of the interesting group of young Valencian composers took part.

The show to take place in the bullring started with the idea of paying a tribute to the music schools and all its members. First, we contacted a company specializing in large events such as the case of Xarxa Teatre, based in Castellón, but with experience in massive shows around the world. The agreed-upon design was based on the interests of the youngest (between 10 and 16 years old), so it was decided that the storyline would be based on the popular "rondalles", stories and fables of the Comunitat Valenciana so that the same will be represented in its entirety. One of them was "El guerrer de la Valltorta", the story which finally gave the title to the show. From the beginning, it was clear that all the music was going to be performed live by the young musicians themselves and that we would try to cover a whole range of possibilities:
electronic devices through Soundcool, wind, string, percussion and solo voice. The first part of the show had electronic music whose composition we owe to Adolf Murillo and the second part would be composed and directed by Pere Vicalet, integrating mobile devices with the rest of string instruments, wind, percussion and even a soprano solo voice.

**SOUNDCOOL: COLLABORATIVE CREATION SYSTEM**

'Soundcool' is an app that allows music education to be worked through collaborative creation through mobiles, tablets and Kinect developed by the Universitat Politèctica de València. It's an open and free system available to all interested users that makes it possible to take a creative, multidisciplinary approach that generates critical dialogues around the musical fact.

'Soundcool' is being implemented in several countries in Europe and in American universities such as Carnegie Mellon University and the Technological University of Monterrey (Mexico), leaders in musical technology worldwide.

'Soundcool' takes advantage of the connectivity of mobile devices to turn them into controllers that allow sound manipulation in real time. Mobile devices through the OSC protocol (Open Sound Control) and a simple and attractive interface, are connected to a central computer through a Wi-Fi signal, sending the data that manages sound control through an IP address and a port for each mobile device.

![Figure 1: Visual Launcher and Control Layers OSC Soundcool System](image)

The final result is mobile device that doubles as a powerful musical instrument with the ability to control sounds (WAV, MP3, VST) and launch effects. In addition, it offers creative combinations between digital sound and analogue sound from any sound source external to the system. Therefore, 'Soundcool' has the ability to integrate the traditional with the most advanced in terms of sound.

The added value of 'Soundcool', beyond its technical development, is its creative use. It's important to note that it arose from a pedagogical need that seeks to improve and transform musical practices towards a paradigm centered on creativity and on learning focused on students.

**Sound landscapes and fiction as a creative sound narrative: Construction and interrelation between literary elements and sound elements.**
The proposal was conceived from the beginning as a sound journey through Valencian geography. The result was a fantastic text, based on popular stories, that takes into account all the sound aspects of the literary work making it easy for all the parts to fit.

First of all, a reading was made to delimit the textual elements that punctuated the sound situations that were described in the story.

The story was divided into 4 main scenes:

I- The journey of the Guerrero de la Valltorta
II- Entrance to the Mediterranean and the Albufera
III- The Elx Palm Grove
IV- Las Salinas de Torrevieja

When rereading the original text, the main objective was to find relationships between text and sound. For this purpose, we defined the main elements that work as triggers, meaning that they have the capacity of generating environments or sound situations that fit into the story.

As Nieto (1996) affirms, the deep understanding of each sequence will be essential to establish the need or not for concordance between the rhythm, color, density and tension/rest ratio of the image and the same concepts of the soundtrack.

As an example, some of the main elements selected and taken into account in the sound of the story are summarized in the above graphic in figure 3.

After analysing the texts that make up the history of “El Guerrero de la Valltorta” we started experimenting with sound creation. Each student brought up different objects that produce sound and after exploring their sonorous characteristics, recordings and transformations were made in the editing process by applying filters and effects.
Using that method, we altered all sounds so they would better fit in the narrative and the different articulations that allow to highlight, to specify the characteristics of an encounter with a character, situation or geographical context. We achieved a total fusion between the literary elements, visuals and sound, and finally, formed the sound palette that would be used in the performance in real time with the Soundcool system.

Creation of the sound palette: sound design.

The creation of the sound palette, although very defining, still allows for later rethinking through the Soundcool system, as we divide it through the different modules that make up the app. The generation of new sounds implies an experimental process that sometimes isolates the sound from its natural source to generate a completely different one.

In the first approach to sound, by simply stripping it away of its natural source and its use in a different context that changes the original meaning or in other cases, the punctuation of the literary idea, since we can hardly recognize the sound with the image of the primal object that generated that sound. In a later approach, the sounds could be subjected to an editing process where their parameters are intentionally manipulated to convert them into new sounds leading to the generation of fictitious sound spaces. Either one case or the other, this types of approaches suppose a trigger of the imagination and open up the creative possibilities, promoting new bridges between the sound frame and the literary history.

The work of collecting the sounds and editing them was carried out at the MusicLab CR-209 of the Institute of Secondary Education of Carcaixent (Valencia). This Laboratory is unique in Spain.

We distributed the sound palette in 5 blocks of 20 devices to facilitate the work, assigning each one a specific part of the story.

The first block, group A, was responsible for the introduction and entry of the “Guerrero de la Valltorta”.

Group B assumed the part of the Mediterranean Sea and Albufera.

The X-Y group used electronic textures that worked as “mattresses” throughout the performance (that is to say, background music for all the other sounds to fall back on).

Group C was commissioned from the Palmeral de Elx and finally group D from the Salinas de Torrevieja.

All the groups with the exception of the group X-Y of electronic sounds used samples of real or edited sound according to what was sought in relation to the literary text.

Below is a diagram of the global distribution of the Soundcool ensemble:

![Figure 4: Distribution by groups of the Soundcool ensemble](image)

![Figure 5: Assigning Soundcool groups and modules by scenes](image)
Development of the proposal from the classrooms. Workplan

As Castells (2007) said, the idea of a young man today carrying a backpack of boring textbooks, defined by ministerial bureaucrats and locked in a classroom thinking that he endures all of this in name of the future is simply absurd. It’s common for people to think of mobile devices as artifacts made purely for entertainment and not as tools of creation or collaboration. Although in informal contexts users exploit their capacity as content-producers, we barely use them in the education area. It slows down the development of new more creative relationships between technology and creativity and in turn, they place a suspicious look on the obvious potential of the devices as tools (Cobo, 2016).

The panorama described in the previous paragraphs can be summarized in the following points:

- Deep and rapid mutation of media ecology due to the constant evolution of digital technologies.
- Slow and incomplete adaptation of educational institutions to the new techno-cultural environment.
- A gap between real life (digital), young people and educational institutions.

Unlike musicians of non-academic training, the relationship established between the musician and his instrument usually goes beyond an object-relation. The technical demands and the hours of dedication establish the relationships that determine an emotional framework or as defined by the composer Llorenç Barber “domain control” that makes it difficult for them to open up towards using another instrument, especially technological ones, (Murillo, 2014).

The prevailing tendency is to think of the technological artifact, in this case, a Smartphone, as a non-musical instrument which creates a whole series of negative connotations present when designing a proposal.

It’s evident that sound creation has been too far removed from music classrooms (Delalande, 1995, Giráldez, 2007, Glover, 2004) (Burnard & Murphy, 2016). And as pointed out by Cárdenas (2003) and Díaz (2006), we need changes in these areas that provide other views to music education.

For this reason, during the first sessions, we had to divide the work into two aspects: the technical one and the understanding of the sound proposal. All of this having in mind the goal of transforming the view on the ability of the devices to make music.

Before anything else, the sound material was sent to the classrooms. Thanks to that, the different schools participating in the proposal had time to work on basic technical aspects and understanding the work through the palette of sounds assigned to each group. Subsequently, a general test was carried out. The location of the general rehearsal was strategic to be able to gather all the participants in the same room. The technical complexity involved in the use of 6 computers and five routers which made it complicated for the entire team to move. The equipment was previously tested and all the modules with their corresponding sounds ready to be executed were loaded into the system.

Another element to take into account was the opportunity of having all the students and teachers in this same session. This allowed us to discuss all the instructions and improve upon them, facilitating a global vision of the entire performance.

On the first day of joint work, we explained how Soundcool worked, answering questions about the connectivity through the Wi-Fi network, the use of control layers in the APP installed in their devices which allow sound management in real time through the OSC protocol.

In this first level of intervention, the main focus was to ensure we had everything down in the technical aspect: quick solutions for the Wi-Fi connection, volume control, play, stop and all the technical parameters that would be used in the performance.

Then we started working as if we were dealing with a great ensemble of 100 instruments: inputs and outputs by blocks, solos, creation of sound planes, modification of the speed of the samples with the intention of generating different sounds, avoiding saturation which would result in an incomprehensible array of sounds that wouldn’t fit with the proposed story.

![Image of students working on the proposal]

Figure 6: General test of the Soundcool system with 100 devices.

Likewise, we worked on different gestures and non-verbal indications to facilitate the interpretation of the ensemble.
For a better understanding, a guide was developed in the form of a score where the timing of the instruments that were to be played was always indicated by text and in coherence with the written history. We worked insistently on the flexibility that demands a live performance stage at any given time. Consequently, we had to prepare the students who would be playing where the inputs, outputs and other effects are subjected to whatever is going on on the for sudden changes in the timing of the events, thus teaching them to improvise and allowing them to be more independent during their performance.

**Day X: the performance. Technical and artistic aspects**

As previously stated, live proposals require the musician to be in a state of alert to be able to come up with solutions in real time, while working with the actors on the performative experience.

The rehearsals served this purpose, using some gestures and signals to guide the students and help them adapt the sound result to the theatrical rhythm that the actors give and which involves continuous feedback of ideas that slightly modify the current means of sound creation. Likewise, different aspects such as the control of the batteries were corrected and the musicians were asked to keep their phones/tablets always well charged.

The final performance would be carried out in the bullring of Castellón and Alicante and it was a technical challenge to submit to the Soundcool system because of the interferences by other electronic elements and the number of devices deployed in the same space. Because of this complications, we use high-quality cables to connect the routers and computers to avoid signal loss. By doing this we achieved a greater reliability in the response of mobile devices, facilitating the transfer of data to the different computers that made up the technical department. The distribution of the 100 musicians in 5 blocks greatly facilitated organization and reduced mistakes when making changes to the system.

The final result was the total integration of the sound with the theatrical proposal: lights, sound, movement and scenic elements, contributed to a colourful and innovative spectacle never before seen.

![Figure 7](image-url): Day X: World premiere of the show in the bullring of Castellón.

**METHOD OF RESEARCH**

**General Background**

The method used for this research was qualitative research (Bresler and Stake, 1992, Eisner, 1996). This method allows us to focus on details that emerge from human experiences and that can hardly be noticed with quantitative research.

By analysing the experiences of the participants we are able to map their attitudes and responses to the same event and thus seek valid explanations that will help us answer the questions that arise from this research.

The research was conducted during the months of February, March and April 2018, coinciding with the completion of the scenic proposal in the bullring of Castellón.

The first round of participants were 12 teachers from different music schools of the FSMCV with more than 5 years of experience and 100 students from the same schools aged between 10 and 16 years old. None of them using any instrument other than their mobile devices. Neither the teachers nor the students had had previous experience with Soundcool.

In addition to these 100 students, another 5000 participated thanks to the schools that were responsible for providing wind, string and percussion instruments and a soprano solo voice in the second part of the show.

**Instruments and Data Analysis**

1. Unstructured interviews
2. Focus group  
3. Participant observation  
4. Field notes  
5. Video analysis

The analysis focused on the attitudes generated by the proposal and the Soundcool tool, as well as the creation of a contemporary language, being the necessary route to reach the final objective of the observation followed both in situ and from the videos.

Another important aspect was the opinion of the students themselves and their teachers, since they had left their conventional instruments to participate with mobile devices in one of the most significant concerts of their lives as musicians. Unstructured interviews were organized for the students as well as for the group of experts, made up of 8 teachers participating in both the Soundcool part (4) and conventional one (4).

Open-ended questionnaires were prepared, which formed the basis for the unstructured interviews, whose purpose was to allowed multiple ideas to emerge. Before giving them for finished they were validated with the help of three professors from different Valencian universities.

The analysis of the videos was done with the help of the Elan software, The language archive. An interesting tool that allows you to take notes while viewing the videos. Once this first analysis was finished, all the information was dumped in the Atlas-ti program, which allowed families to be formed of categories that were refined little by little, to arrive at the final category map from different families or hypercategories. From the analysis of the notes of the field diary and of the interviews, the process of dates-codes-categories-supercategories was also carried out (Buendía & others, 1999).

DISCUSSION OF RESULTS

This discussion of results arises from the qualitative paradigm, so at all times we have to observe criteria of internal validity, contrasting the meaning of the emergent categories with the opinion of all the experts that participate in the research itself (Goetz & Lecompte (1988)

We will use triangulation as the strategy that provides validity to the results.

When alone, in some cases, the participants had difficulties using Soundcool due in part to the lack of commitment to understanding the basic elements of the tool and the previous work with the students. Even so, most of the teachers involved saw possibilities to incorporate the tool into their classes, expanding the unusual creative possibilities in their daily practices.

The faculty indicated that the use of the tool for a specific proposal and with the accompaniment of experts in the first phases of work allowed a much deeper understanding of the creative possibilities of the tool.

The sound creation work through the Soundcool system without any concrete intervention framework has more possibilities of failure.

According to the opinions of the participants, the degree of approval is influenced by the use of the story of the Guerrero de la Valltorta as a frame of reference for sound creation, which facilitates the understanding and introduction of contemporary languages.

If the sound understood as an isolated element provokes some rejection, the continuous repetition directed to the voicing of the story spurred a greater adaptation and, therefore, a larger understanding of the proposal.

The strategy of dividing into different blocks assigned to the four parts of the story allowed a more operative and complete work by all the participants, facilitating a global vision of the sound result.

If in the first working sessions a link between the devices and an entertainment purpose was formed, which lasted throughout the creation process.

By analysing, we witnessed a change in the cognition of the participants.

They would pay greater attention to the sound and musical elements instead of to the tool itself.

The work of the professors and experts led to a positive attitude in the students. As some of the interviewed students affirm, working with a device, although technically different from its usual instrument, demands the same attitude towards the training task. Likewise, it demands concentration and attention, the ability to recognize their own sound and the sound of others as it would be with traditional instruments.

It’s important to note that many of the teachers thought that moving the students away from their usual instruments and having them use a device for sound creation proved beneficial for their listening skills.

Because they can only hear themselves through the speakers, they are “forced” to be more focused to detect who and what it’s sounding. This condition is essential to be able to manage a group, especially such a big one.
In general, the idea of generating a hybrid sound between traditional instruments and electronic music had great success, causing textures and sound planes of great complexity and beauty. This research can offer new possibilities in traditional instrumental groups like the extension of the sound concept towards more contemporary proposals that study a better union of the acoustic and the electronic through innovative projects.

It's also important to point out the contributions of the participating professors. The experience opens the doors to the incorporation of technological instruments and tools in the usual practices favouring the development of student creativity and enriching the training of students not only as instrumentalists but from the vision of the student as creator.

In addition to all the comments extracted in the previous paragraphs we note that in each of the fields analyzed (interviews, focus group, participant observation-field notebook and video analysis) there are coincidences in the defining aspects of the research questions:

- Change of perception: the Smartphone as a musical instrument
- Smartphone as a tool for creation
- Other forms of listening based on contemporary languages
- Increase in creative possibilities
- Integration between electronic devices and conventional instruments
- The association of two approaches: traditional and contemporary.

CONCLUSIONS

The fact of sharing a sound experience allows us to overcome the rejection of contemporary languages. The results obtained in this research indicate that the creation of a collaborative process in the generation and combination of sounds through creative means involves a joint effort that gives meaning to the music generated in that action.

Thus, the meaning of sound is due to a process of interaction that allows us to locate it through a narrative that is contextualized in the act of creating (Green, 2009; Lines, 2009; Zanpronha, 2013). As evidenced, a proposal based on the sound of a story which serves to create contemporary languages with a low degree of abstraction, this programmatic relationship between the text, sound and image can be helpful. This may be due to the relationship between the image and the sound to which we are subjected in cinematographic or advertising languages, always as a first step to understanding more complex languages and proposals. Beyond an instrumentalist vision of technology as a neutral tool (Castañeda, et al., 2018) the accompaniment of experts and pedagogical planning generates knowledge and acceptance of technological tools favouring their creative use. Technology is a tool in the service of educational purposes, but it's also a way to connect to the world, human activity and a source of values (de Vries, 2016).

At the same time, we note the consistency in the collaboration between the traditional paradigm and the contemporary one.

We have confirmed that mobile devices can behave as instruments and have been considered as so by the students themselves.

In addition, the 100 students of the proposal at no time showed willingness to participate in the concert with their traditional musical instrument. On the other hand, there were many students who participated with traditional instruments (wind, string, percussion or solo voice) who asked about the possibility of using their mobile devices. All of this leads us to answer the initial questions of the investigation:

- Soundcool has clearly shown itself as a technological tool that allows us to reconcile practices with a pedagogy more in tune with the times in which we live.
- They reinforce other types of listening that move away from the most classical tonal models.
- We have noticed that the fact of using a story as a foundation has been helpful. At the same time, we notice great approval by the students of this way of making music with other tools which have many creative possibilities even when they are essentially the same tool.

Finally, they showed flexibility in the sound responses within intervention frameworks based on improvisation

- Regarding the difficulties observed, we noticed a lot of technical difficulties due to the sheer amount of people and their electronic devices. Difficulties that were controlled with higher quality wiring in the performance of Alicante that allowed to regulate the interferences, as well as the proximity of the routers to the different blocks facilitating connectivity.
- On the other hand, the most important difficulty has been overcome: the rejection that new technologies continue to provoke in part of the teaching staff. We think that the acceptance by professors and students of the fact of being immersed in proposals with a clear pedagogical methodology that facilitated the understanding and assimilation of the musical proposal from a contemporary language has been evident.
REFERENCES


