Podcasting: report of an experience in Music Education

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Abstract: In this paper we will present a pedagogic experience carried out in a 6th grade class, in the current 2008/2009 school year, in the Music Education classroom. For this purpose, a podcast was created (www.podomatic.com) and several activities were developed, in classroom context, taking advantage of the tool's potential. Although the podcast was managed by the teacher, the published contents were mostly developed by the students, therefore becoming themselves producers of the information on the web, in a logic that exceeds the observation level and motivates the student to have an active role in the construction of the global society of the 21st century.

Introduction

In the global society of the 21st century, so-called of "information", of "knowledge" and, most recently, of "learning" (Pozo, 2002), the Internet is not a simple communication technology, but the epicentre of many areas of the social, economic and political activity and constitutes itself, in Castells (2004: 311) perspective, "as the technological instrument and the organizational form which distributes the power of information, the generation of knowledge and the capacity to connect in network in any given scope of the human activity".

We live in a society that consumes more and more technology with particular emphasis on children and young people. For them, technologies are an integrating part of their daily activities and routines. It then makes sense that, as teachers and researchers of the 21st century, we question ourselves on what should be the role played by digital technologies in education in general and in Musical Education teaching in particular.

In fact, in this globalized and in constant change world, the access and the relation that young people have with music has been changing. The diversity and variety of music that the new technologies and have made accessible, contributed to another relevant characteristic of the contemporary music life: the awareness of an enormous diversity and heterogeneity (Palheiros, 2003).

With these changes, both in society and in technologies, transformations have taken place in music and in the lifestyles of society, with advertising playing an important role, specially through television (Freitas, 2000). This fact led to changes in the evaluation of music and in the way people listen to it. With this exposure to music, children reveal a vulnerability regarding the listening of certain music genres, either by colleagues who only listen to music from a certain group/singer, or even because older students enjoy the same group/singer. With this, children end up not developing a critical spirit over the music they listen to.

Other factors of great importance in music teaching, and in music in general, were the digital revolution and the developments in equipment portability, both in recording and in reproduction.

The recent development of the , which materialized in the appearance of a series of new and easy to use free applications which we call Web 2.0, opened immense opportunities to explore in the teaching and learning of Music Education, namely the possibility for students to become producers of contents and to publish them on the web. This change in the role of the user is one of the more significant characteristics of the Web 2.0 paradigm.

The Web we know and use today is not only an entanglement of pages that relate with each other through hyperlinks, it is not a mere repository of videos, images and sounds accessible through the browser, it is not an informative channel accessible only to advanced users. It is a friendly platform, socially accepted and receptive to any individual to access and enjoy the numberless services, getting involved and contributing for its future growth and course (Ferreira, 2007). For Alexander (2006: 33), "social software has emerged as a major component of the

Web 2.0 movement", that is, the Web 2.0 or social Web, is concerned with the users' participation, propelling the development of collaborative activities and information, as well as knowledge sharing. In what concerns us, we understand the Web 2.0 as a synonym of a new look over the innovation potential of the , implying an intensified participation of the net effect: more active participants are suggested, in the name of one plural intelligence, shared or collective, strengthening the concept of the transformation of information and collaboration of internauts with sites and virtual services (Coutinho, 2008).

Among many applications of the new 2.0 generation available on the web and with particular interest for Music Education teaching, the podcast stands out. The development of this technology began in 2004, when Adam Curry (DJ at MTV) and Dave Winer (software developer) created an application that allowed to automatically download radio broadcasts directly to Ipods. It does not exist, however, a consensus around an unequivocal definition for the podcast concept; Primo (2005), for example, defines podcast as "a mediatic process which emerges from the publishing of audio archives on the Web"; for Moura and Carvalho (2006a), the term podcast refers generically to the possibility of downloading audio contents from the Web. In our case, we will adopt Bottentuit Junior and Coutinho (2007) proposal, for whom the podcast is a web page, which resembles a blog and allows the use of text, image, audio, video and where audio files are available for download to portable devices.

The podcast can be used in two ways: in direct interaction through the , that is, the user can listen to the episodes directly from the podcast or through the download of audio files either to the computer or to portable devices such as: Ipods, mp3 players, and so on. The possibility to download files to portable devices allows for the listening of audio files anywhere and anytime, without the need for an connection, going towards the direction of what many authors refer to as being characteristics of future learning, that is, to learn anywhere and anytime (Bottentuit Junior e Coutinho, 2008).

The podcast technology is being used in very diverse contexts: in the business scope as a form of making meetings contents available; in news and entertainment programs, as well as in scientific programmes; and also in education where it begins to be used for broadcasting and to make classes available (Bottentuit Junior and Coutinho, 2007), specially for the support of learning in the blended training system or b-learning (Carvalho, 2008).

In fact, the advantages that can come from the educational use of the podcast are countless. Coutinho and Bottentuit Junior (2007) emphasize: i) the podcast induces a greater interest in learning because it allows for a different teaching and learning strategy in the classroom; ii) it is a resource which adapts itself to different learning rhythms from students; iii) it allows learning either inside or outside the classroom; iv) the interaction between the act of speaking and the act of listening allows for a more significant learning than the simple act of reading; v) and the possibility for the work in the podcast to be accomplished in group, allowing for collaborative learning, and bringing advantages over the individually accomplished work, as numberless studies carried out in our country demonstrate; vi) by recording episodes students have a greater concern in the preparation of a good text to be listened to by the teacher, by colleagues or by all the cybernauts that use the Web!

Other potentialities reported in the literature and associated with this technology are the RSS and the simplicity in creating and recording episodes directly to the . Through the subscription of the RSS service, the user is notified through e-mail whenever changes in the podcast come up, allowing him not to need to consult the podcasts daily and being always on top of any news posted by the author of the podcast (Bottentuit Junior e Coutinho, 2008).

Since it is a quite recent application, there are still few studies carried out in our country on the use of podcast in education. However, since 2006, the first works made with this tool started to appear, such is the case of the "Correspondance Scolaire" and the "Discurso Directo I e II" carried out by Moura and Carvalho (2006a; 2006b).

Meanwhile, we did not find any studies carried out in our country that reported pedagogic experiences on the use of this technology in the context of the Music Education discipline, which constituted an incentive for the development of the empirical study that we come to report in this communication.

In fact, we believed that, on one side, the podcast's characteristics adjusted well to the specificity of the teaching and learning of ME and, on the other side, we felt our share of responsibility in the preparation of 21st century citizens, that is, to provide our students with the digital competences and, above all, with the digital wisdom which Marc Prensky speaks of in an article recently published, an essential requirement for the success in the learning society (Prensky, 2009). Considering this context, the following orientation questions for the investigation were defined:

- Is the podcast a Web 2.0 technology with the potential to be used in the Music Education discipline? At what levels?
- Are students more motivated for music learning with the use of podcasts in the Music Education discipline?
- In what way do students learn and in what measure this learning differs from the one propelled by other

Music Education teaching methodologies?

Method

The empirical study carried out involved a 20-student class from the 6th grade of the Music Education discipline. The choice of the class had to do with the fact that one of the researchers was a teacher of this class, whose elements had basic knowledge either at the Portuguese language level or at the informatics level. Other factor that was responsible for the choice of this class was the school level, since the new technologies in music teaching are part of the Music Education programme of the 6th grade.

Regarding the gender, 50% of the students were from the male gender and 50% from the female gender. Regarding the age, we verified that 15% of the students were 10 years old, 70% 14 years old, 5% 12 years old and 10% 14 years old. 75% of the students did not know what a podcast was, 3 had already accessed to a podcast and 1 had already created one.

In methodological terms, the specificity of the study's object and the scarceness in research fulfilled in this area, led us to consider that the case study, included in the blended plans due to the fact of being descriptive (qualitative) and quantitative (Gomez, Flores & Jimenez, 1996), would be the investigation plan that best suited the study's objectives. In that sense, the methodological plan was flexible, with the investigators having proceeded to punctual adjustments in function of the feedback received from the participants, throughout the 3 months during which the experience took place.

The Project was evaluated/monitored in several steps and resorting to different data gathering techniques. In an initial phase, a questionnaire was administered to identify the students' profile, regarding age, gender, ownership, place, frequency and use of the informatics equipment (computer, laptop and mp3 player). In that same questionnaire we also sought to know: a) if the students knew the podcast, b) if they had created or accessed any podcast, and also c) evaluate the students' attitudes and perceptions regarding Music Education, as well as, d) know how they idealized the Music Education class. For the monitoring of the different activities performed, an onboard diary was used, in which it was registered, in the form of field notes, the reactions, the participation and interest demonstrated by the students, since most of the activities were developed in classroom context.

In the end of the experience, a final opinion questionnaire was administered to gauge eventual differences regarding the taste for Music Education, as well as over the students' perceptions respecting the usefulness of the podcast in the Music Education discipline and the implemented pedagogic strategy.

The students' works were also evaluated, as well as comments posted on the podcast. This part of the project evaluation will be carried out by the teacher, by the remaining classmates and by the work's author himself (evaluation and self-evaluation).

The Podcast *Música na Web*

For the accomplishment of the project, a podcast was created were some describing activities were posted (URL: http://musicanaweb.podomatic.com).

The first activity (figure 1) was a small "game" with music selected by the students in the first school term. For this, the students used the Audacity audio recording software, with which it was recorded the instrumental, the melody performance on the recorder and the vocal interpretation of the class and of some soloists of the selected song.

The second activity (figure 2), rendered available monthly, consisted on a small listening game – Secret Composer. For this, the teacher made available the excerpt of a composer, as well as a distorted image and some clues respecting his biography. The students had to find out who the Secret Composer was, posting a comment/answer on the activity. Each ten days, it was placed a new excerpt from the same composer, a new image (each time with greater distortion) and other clues on the biography, up to the maximum of three excerpts, with the last excerpt being one of the most well known masterpieces of the selected composer.
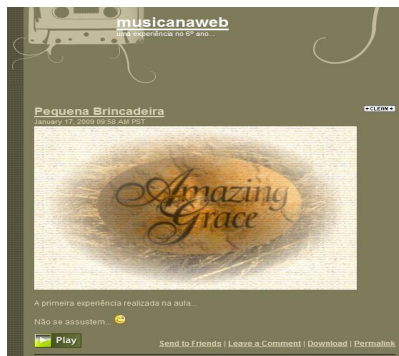
"Small   **Figure 1**-Game"   **Figu**

The third activity – My Song – consisted in a work on one of the students' favourite songs (figure 3). Each student, in the Audacity software, added effects to the original version with the purpose of motivating the development of competences at the listening recognition level.

The fourth activity - Let's play ... – consisted in the interpretation of a song with the recorder, in dyads. (Figure 4)
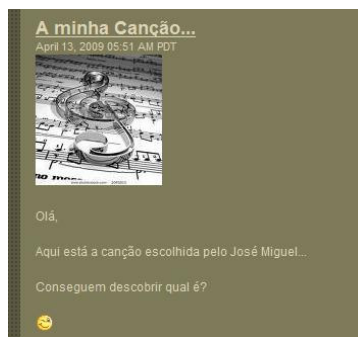

Figure 3 - "My song..."   **Figure 4** - "Let's play..."

The fifth activity – A Little more of… - consisted on a small group work relative to Music History (figure 5). Each group of 3-4 students was responsible for one period of the Music History – Primeval, Middle Ages, Renaissance, Baroque, Classical, Romantic and Contemporary – and created an episode relative to its period, which was, in due time, rendered available in the podcast. For the elaboration of the episode, some sites were made available, indicated by the teacher, where the groups could check for information regarding the chosen period.


Figure 5 – "A Little more of..."

Results

Quantitative data

The final questionnaire sought to verify the students' reaction to the experience on the podcast use in the Music Education discipline. This questionnaire was divided into four sets of questions: i) participation in the project, ii) proposed activities, iii) podcast use in Music Education, iv) final assessment of the project

The first question inquired the participants if they had enjoyed participating in the project and also asked for the justification for the given answer. All the students stated having enjoyed participating in the project. When a justification for the previous question was asked for, the answers varied: "knowing new documents or information about music" (A1, A7, A15 and A17), "amusing activity" (A2, A4, A11, A16 and A20), "having our own site" (A3), "learned new music" (A5 and A6), "new experience" (A14), "I think it's cool that the teacher makes a project for the students" (A8 and A14), "I like music and computers" (A9 and A10), "I am very proud to have a site in the " (A12), "interesting" (A13, A18 and A19), among others.

In the second set of questions, it was asked what was the impression/feeling they had when the project was proposed. 60% indicated that they had a good impression, 25% indicated "Very Good" and only 15% indicated "indifference to the proposal. When questioned on the choice made, there was a balance among the questions: "newness" (A5 and A6), "construction of a webpage" (A14 and A15), "fun" (A1, A4 and A20), "interesting" (A1 and A7), "amusing" (A4 and A19), "show what I was worth" (A14, A16 and A18), and so on.

In the following question, it was asked for three adjectives which, in the students' opinion, better characterized the accomplished project. Graphic 1 presents the results obtained from the 17 students that answered the question.
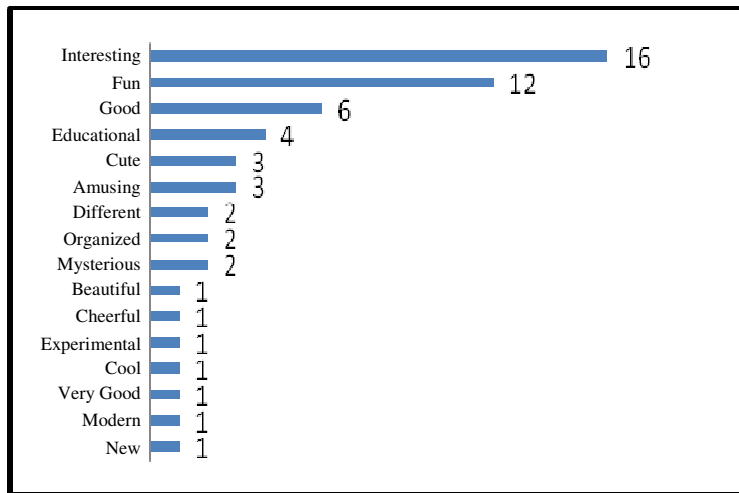
Graphic 1 - Adjectives associated with the pedagogic activity

As one can verify, the students suggested 16 different adjectives to characterize the podcast project; the adjectives most quoted were "interesting" (N=16), "fun" (N=12), "good" (N=6), "educational" (N=4), "cute" (N=3) and "amusing" (N=3). We point out that all of the proposed objectives reflect a positive connotation with the pedagogic activity valuing, mostly, the entertainment component and its innovative character. Questioned on the justification for the choices made we point out:"I love music projects in the " (N=3), "very interesting" (N=4), "amusing activities" (N=3). Some participants did not answer the question (N=4).

In the next question, students were asked to indicate the podcast activity which they enjoyed the most. As it can be verified in the table presented bellow (Table 1), the activity which obtained the greater number of choices (65%) was the "Secret Composer", the second most voted activity was the "First Experience", followed by "Lets Play" and "My Song" which obtained 10% each. The activity "A Little More of…" was not chosen by any student. In the justification asked, most of the intervenient stated that they had chosen the "Secret Composer" because "they

enjoyed discovering new composers" (A1, A5, A6, A9, A10, A11, A16 and A18), "through the research" (A12 and A15), as well as "the competitiveness inherent to the activity" (A2, A7, A8, A14 and A19). Other justifications were: "enjoyed working in group" (A4), "enjoyed the music" (A3, A17 and A20), among others. Only one element did not justify the given answer (A13).

Activity	N	%
Secret Composer	13	65
First Experience	3	15
Lets Play…	2	10
My Song	2	10
A little more of…	0	0

Table 1 – most liked activity

The following questions asked students about the importance of the podcast use in Music Education classes. In the first question it was asked if they thought that the podcast was helpful for Music Education learning. All the students responded affirmatively (100%) to this question.

It was next asked for students to indicate the three options which better justified the given answer (see table 2). The option "motivates students to the discipline" was the most voted one, followed by the option "interesting" and "it makes the learning of some themes easier". The options "complement to the class", "stimulates group work", "classes were fun" and also "develops individual work" follow next, in a descending order. We point out that no student chose the options "I don't see any utility in the podcast", "it is a waste of time", which advocates in favour of the taste and interest that students showed in the proposed activity.

	N
It motivates students for the discipline	14
It's interesting	11
It makes the learning of some themes easier	10
It's a complement to the class	9
It stimulates group work	7
Classes are fun	7
It develops individual work	2

Table 2 – Reasons for choosing the activity which they liked the most

When questioned on the use of the podcast in other disciplines, 75% stated that they would like to use it and 25% that they would not like to use the podcast in other disciplines. The disciplines considered to be the most suited for the use of this tool were Visual and Technological Education, followed by Foreign Language and Nature Sciences, being the M.R.C.E. the least pointed out.

In the last question, it was asked if they would like to continue this project in the third term – all the participants stated that they wished to continue the project initiated in the 2nd term (100%).

Qualitative data
Since this project was developed in the Music Education classes, we used an onboard diary to record the reactions as well as the interest and students' participation throughout the project.
In the project's presentation class, most of the students displayed great curiosity, questioning the teacher on what were they going to do.
The 90-minute long classes were organized in a way that half of the class was destined to the presentation of activities and the other half to its development and to helping the students in its fulfilment. The activity which raised the greater interest was the "Secret Composer", considering that, when the activity was presented, in that very day, most of the students had already left an answer in the podcast. It was interesting to verify that, when some participant saw the teacher, he would immediately come to him to ask if the answer he had given was the right one. With this activity, a healthy competition spirit was developed, in which each student tried to be the first to get the answer right in the "Secret Composer". On the other hand, the activity which raised the least interest was the "Lets play", since it was a difficult piece to perform in dyads and in which students did not receive help from the teacher. Only four students presented their interpretation.

The activity "A little more of…" occupied the greater number of classes, since additional help was necessary from the teacher. The elaboration of the summaries of the epochs regarding Music History was complicated, since at this level students still have difficulties in summarising a text, which required a greater concern from the teacher in helping them. In spite of this difficulty, almost all of the students searched for books in the library and carried out research in the , both for texts as well as music from each epoch, which motivated some interest for the fulfilment of the activity. Globally, we considered that the project was quite interesting and motivating for all of the intervenient.

Conclusions

The Web 2.0 concept introduces a new philosophy in which users of the global network are no longer mere spectators and assume a more active and participative role in the process of access and edition of information available online. According to Silva & Gomes (2003), in terms of teaching methodologies, the educational paradigm in vigour should evolve towards more student centred methodologies, which will make the student a more active and central element in learning.

Through the web, the student is invited to actively build and restructure knowledge through multiple opportunities, for what this technologies can represent a support for the change in the conception of teaching-learning, in particular in the Music Education teaching. That is, the ITC potentialities may contribute for an improvement of the processes of teaching and learning of music (Tafoi *et al*, 1991), if the educational practices in which these are included change the teacher's role from the traditional transmission process towards a mediator one, which, in turn, requires a change to a constructivist teaching-learning paradigm (Coutinho & Bottentuit Junior, 2008).

The study presented in this communication intends to set an example on the use of a Web 2.0 tool – the podcast – in the Music Education class, in a logic of a cognitive tool (Jonassen, 2007) at the service of the implementation of constructivist learning environments in a broader sense, that is, comprising the different personal, social and communal dimensions, reported in the literature (c.f. Ramos et al, 2003). The results obtained from the teacher's direct observation and the feedback obtained from the final questionnaire, advocate in favour of the tool's potential to motivate the students who got actively involved in the different proposed activities. The adjectives which the students used to "brand" the experience reflect the strong entertainment component of the activity which is highly valued by students and which justifies, in our belief, the motivation and the involvement even in the activities that involve programmatic contents and which the students usually do not like: we refer, of course, to the activity "Secret Composer" which was the most participated and valued by the students, despite the fact that its content - Music History – is not appreciated by students from this age level.

In short, even if the objective of this study was not to test the impact of the podcast tool in the learning of curricular activities in ME – which would require the design of an experimental type study with the creation of two homogeneous groups that would receive different analysis – we believe that the students who participated in the study, besides the knowledge of the discipline's contents, acquired certainly a set of new competences which will be very useful in the future. We refer to the so-called *Digital Age Literacies* or *21st Century Literacy* which comprise, among others, the capacity to communicate through different supports (*Digital & Visual Literacy*), in a global perspective (*Global Literacy*), resorting to the computer and (*Technology Literacy*) (Partnership for 21st Century Skills, 2004).

We hope that this project motivates other Music Education teachers, and teachers of other disciplinary areas, to explore the educational potential that the Web 2.0 technologies have to offer so that, with the contribution of all, we can walk in the path of the so desired change in the educational system.

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