Experienced Emotions through the Orff-Schulwerk Approach in Music Education
- A Case Study Based on Flow Theory -

João C. R. Cunha*1 and Sara Carvalho*2
*INET - MD | University of Aveiro, Portugal
1jrcunha@hotmail.com, 2scarvalho@ua.pt

ABSTRACT
Orff-Schulwerk is one of the most holistic and creative approaches in Music Education, and during Music classes, teachers are expected to regularly combine a wide range of sources, including speech, music, creativity, movement and dance.

In this paper we propose to identify different experienced emotions boosted by Orff-Schulwerk’ activities in a Music Education context. Students (N=50), aged between 10 and 12 years old, were audio and video recorded, while attending their weekly Music Education class during one academic year (9 months). In addition, in the end of each class, each student was asked to answer one questionnaire, in order to understand their perspective on their lived emotions. All classes were structured according to three main categories: “General”, “Music and Movement” and “Music Laboratory”.

The empirical process was based on Csikszentmihalyi’s Flow Theory (1975, 1990, 1997, 2002), and the consequent adaptation of the FIMA (Flow Indicators in Musical Activity) and AFIMA (Adapted Flow Indicators in Musical Activity), both developed by Custodero (1998, 1999, 2002a, 2003, 2005). After analyzing the collected data using AFIMA conclusions were drawn. As emotions and cognition are closely linked in music (Cook & Dibben, 2010, Krumhansl, 2002; Sloboda, 1999, 2005; Sloboda & Juslin, 2001; Juslin & Sloboda, 2010), data enabled us to put in evidence several correlations regarding the Orff-Schulwerk approach and the students lived emotions during Music Education classes. AFIMA enabled us to establish that through an Orff-Schulwerk’s approach children lived many positive emotions, which demonstrated to be significant in the way they acquire musical knowledge.

I. INTRODUCTION
Throughout infancy and early childhood children’s music experiences usually begin with informal music activities of their immediate family members. For most children, formal Music Education will start either in kindergarten or elementary school. According to Sloboda (2005) it is at this stage of development that the exposure and engagement with music can lead to wider disparities in the ability to do a variety of musical tasks. Unfortunately, under the actual Portuguese Education system, for most students’ enrolled in the 5th and 6th grade, this will be their first and last formal compulsory musical experience during their school time, as they only start learning music at the age of 10, and just for a two-year period. Therefore, Music classes are seen as something not very important or even interesting, and many children have mix feelings towards their music education process. Departing from our musical background (Orff-Schulwerk approach certification courses and programs) and previous research (Cunha, 2005, 2011) this study aims to identify in Music classes based on Orff-Schulwerk approach, the students lived emotions during this teaching period of their lives.

Supported by positive, cognitive and social Psychology ideas and theories (Csikszentmihalyi, 1975, 1990, 1997, 2002; Fiedler & Bless, 2001; Huppert & Whittington, 2003), the methodological approach (AFIMA - Adapted Flow Indicators in Musical Activity) developed and applied by Custodero (1998, 1999, 2002a, 2003, 2005), revealed at this stage to be very convenient for obtaining information and data analysis. The current stage of this longitudinal ongoing research adds information to a preliminary study by Cunha & Carvalho (2011), where it was observed different examples of Flow Indicators in Musical Activity (FIMA). In this study we reveal the existence of a strong connection between the activities of the Orff-Schulwerk’s approach and the positive emotions lived in class by the students.

II. BACKGROUND
A. Orff-Schulwerk
Orff-Schulwerk is a creative music and movement approach developed by Carl Orff and Gunild Keetman. Music teaching and learning processes, supported by a wide range of sources, provides a means for awakening the potential for “being musical”, meaning to be able to understand and use music and movement as forms of expression. Natural behaviours are firstly directed into responding to and making music. Carl Orff’s idea about Music Education was always to put the practical work in the foreground. Children or adults have “musical potential”, but need to experience, act, enjoy, feel and interact in order to get a musical cognitive and affective development (Kugler, 2011).

In the Orff-Schulwerk approach, musical concepts are learned through singing, dance, movement and the playing of percussion instruments (Orff Instrumentarium). Orff emphasized the use of simple percussion instruments (including body percussion), while building upon human natural singing voice. He also emphasises the links of music with movement, dance and speech in what he nominated “Elemental Music” (Teachout, 2009).

Further intents of Orff-Schulwerk approach are the development of a foundation for lifelong enjoyment of music in a supportive atmosphere. Students learn music by experiencing and participating in different musical activities, stimulating not only the concepts of music like rhythm, pitch or tempo, but also the aesthetic qualities of music (Cottone, 2010).

Improvisation, composition and natural sense of play are encouraged and make students to be involved on a lifetime of knowledge and pleasure through personal musical experience. Learning is only meaningful if it brings satisfaction to the learner, and satisfaction arises from the ability to use acquired
knowledge for the purpose of creating. When exposed to the Orff approach, we are encouraged to create music (Klemp, 2009). In the same way, we learn a language, or how to read and to write, music should be a later natural outgrowth of these experiences. Orff-Schulwerk approach is about learning music putting together forms and motives that can be develop into complexity. Attaining a higher level is fundamental and timeless, and creativity has a central role. Connectivity between multiple sources, aspects and parameters (such as rhythm, melody, movement and language) is a requirement. In an Orff classroom children sing, move and play Orff instrumentarium. They improvise rhythms, melodies and movements. Music is always experienced in all of these media and improvisation is an integral part of every class. The work is multi-layered, offers rewards for students at various stages of development, and is a magically satisfaction for all participants (Lui, 2011).

The pedagogical materials used in the Orff-Schulwerk classes include rhymes, poems, games, songs, dances and instrumental pieces. Those drawn from the cultural heritage of the participants are considered fundamental. According Johnson (2006), evidence of the Schulwerk’s success is clearly demonstrated by its worldwide usage. As an alternative to “authoritative” and “prescribed” approaches to Music Education, Orff-Schulwerk provides, although a under teacher directed process, a mutually collaborative interaction between the instructor and the students, based on freedom of ideas and celebrating creative expressions. Orff Schulwerk’s encourages improvisation and creativity (Teachout, 2009). Music educators trained within this approach are instructors and facilitators, which guide students through several phases of development: Exploration; Imitation; Improvisation and Composition (Campbell, 2008).

In sum, Orff-Schulwerk’s approach is a total active involvement in “music making” that incorporates speech, singing, movement, dance and instrument playing in a creative environment. It is really a holistic Music Education (Goodkin, 2004).

B. Flow Theory

More than twenty centuries ago Aristotle observed that, more than anything, men seek happiness. Nowadays, in behavioural science Mihaly Csikszentmihalyi made similar observations based on connections between daily activities and positive aspects of life involvement like joy, gratification, comfort, satisfaction, success, relish or pleasure.

Csikszentmihalyi (1975) started his observations and studies on artists and creative types. Based on his now-famous ESM - Experience Sampling Method (a particularly inventive way to make happiness a measurable phenomenon) he noted that the act of creating seemed at times more important than the finished work itself and he was fascinated by what he called the “flow state”, in which the person is completely immersed in an activity with intense focus and engagement. Moments in which our mind becomes entirely absorbed in the activity so that we “forget ourselves” and begin to act effortlessly, with a heightened sense of awareness of the here and the now. Indeed, Csikszentmihalyi (1988) has even given it a name for an objective condition – “Flow” based on four essential components (Control; Attention; Curiosity and Intrinsic Interest). “Optimal experience/flow state” occurs when someone is in self-control, goal-related and identified with meaningful actions.

According Csikszentmihaly (1990) “optimal experience / flow state” is a “state” between “Boredom” and “Anxiety”, produced when there is equilibrium between “Challenges” and “Skills”. The best moments usually occur when a person’s body or mind is stretched to its limits in a voluntary effort to accomplish something difficult and worthwhile. Therefore, by balancing high levels of Skill and Challenge, we are able to generate high output of ideas, productivity, satisfaction and forward momentum.

Figure 2. Flow Theory schematic representation (Csikszentmihaly, 1990: 74)

Csikszentmihalyi (1990) defines “flow channel” as a state in which people are so involved in an activity that nothing else seems to matter. The experience is so enjoyable that people will continue to do it even at great cost, for the sheer sake of doing it. He identifies a number of different elements involved in achieving “optimal experiences/flow states”:
throughout given songs / pieces / movement and
teacher, in which students work on musical parameters
"Music and Movement" are semi
contribute with their ideas during the entire practical work.
Music theory; mu
total orientation, and where practical activities are performed
class
Education Ministry, in the 2010
Education official program guidelines, set
classes in this study were
ongoing longitudinal researc
approach a
Music Education context.
different lived emotion
music cognition. At this stage, we will bring to light the
creativity, dance, learning processes, publicity or sports. In
distinct areas of human life like artistic and scientific
Psychology.
considered
experiments and subsequent findings (1975, 1988, 1990,
Csikszentmihaly’s exhaustive case studies, controlled
subjects like musical learning, musical cognition, musical
creativity or musical performance studies (Araújo, 2008;
Bakker, 2005; Bersh, 2009; Byrne et al., 2003; Bloom &
2002b, 2003, 2005; Custodero & Stamou, 2006; DeNora,
2000; Fritz & Avsec, 2007; Kraus, 2003; MacDonald et al.,
2006; O’Neill, 1999; Pachet, 2004; Rhoda, 2009; Sheridan &
Byrne, 2002; Silva, 2008; Sloboda et al. 2001; Troum, 2008).

III. AIMS

The main objective of this paper is to share results obtained
from an ongoing longitudinal study on music pedagogy and
music cognition. At this stage, we will bring to light the
different lived emotions referred by the students (AFIMA) at
the end of several Off-Schulwerk’s approach activities in a
Music Education context.
This study also intends to contribute to a research area
where there is still scarce information on the Off-Schulwerk’s
approach and children’s music learning process.

IV. METHOD

Following our previous study (Cunha & Carvalho, 2011),
based on video/audio recordings in the classroom (FIMA), the
data here reported represents a second stage of analysis of the
ongoing longitudinal research. In the end of each Music class
students were asked to answer one questionnaire in order to
include their perspective on their lived emotions. All Music
classes in this study were planned according to the Music
Education official program guidelines, set by the Portuguese
Education Ministry, in the 2010 / 2011 academic year. Classes
were always based on the Off-Schulwerk’s approach, and
were structured in three main different categories: “General”,
“Music and Movement” and “Music Laboratory”. “General”
classes are considered moments where the teacher assumes
total orientation, and where practical activities are performed
(singing, playing body percussion / Off instrumentalum) and
where theoretical topics are explained (e.g. music notation;
music theory; music history). Students are invited to
contribute with their ideas during the entire practical work.
“Music and Movement” are semi-guided classes led by the
teacher, in which students work on musical parameters
throughout given songs / pieces / movement and dance forms /
choreographies. Students’ are allowed more freedom and
participation than in “General” classes. Finally, in the “Music
Laboratory” classes, the teacher only suggests the initial idea
(e.g. a rhythm, a melodic or an harmonic phrase, a speech, a
painting, a story, some comics, etc.), defines the timings for
the activity, organizes it into different groups (maximum of 6
students randomly chosen) and provides for each group the
same pedagogical materials (e.g. Orff instrumentalum). Then,
departing from a given idea, students work freely and
improvise rhythms, melodies, harmonies, movement and
choreographies. At the end of the established time, they
present their work to their colleagues, and then all classmates
make an evaluation / discussion. This kind of class
organization allows students to feel completely free to create,
to explore and to interact with and supported by music, using
practical and theoretical topics previously learned in
“General” and “Music and Movement” classes.

In Off-Schulwerk classes students are always the central
part of the process, particularly on “Music and Movement”
and “Music Laboratory” classes, where they are able to unify
theory and practice, fantasy and reality, imagination and
discipline, emotions and thoughts. In this way, being aware of
the emotions lived by the students in each of the activities,
collected by AFIMA, is extremely important to understand
how musical knowledge increases, since for being inside
music, emotional involvement is a requirement (Sloboda, 1999).

Participants
This study involves 50 students aged between 10 and 12
years old, from a Portuguese public general school (5th and 6th
grade classes in Music Education context). For all the 5th
grade students this would be their first year of formal Music
Education.

Procedures and measures
In the end of each Music class each student was asked to
answer one questionnaire. The data was collected over 25
Music classes of the full academic year. The questionnaire
was constructed based on a previous existing one (AFIMA –
Adapted Flow Indicators Musical Activity), which was
developed and applied according ESM – Experience Sampling
Method in several studies by Custodero (1998, 1999, 2002a,
2003, 2005). In total 637 questionnaires were answered by the
students and served as data, which was then analysed. The
results were treated using statistical analysis of “Affective
Indicators” (AFIMA).

The analysis of the global data was obtained during
twenty-five sessions divided in three pre-defined categories:

thirteen “General” classes, six “Music and Movement” classes
and eight “Music Laboratory” classes.

In order to clarify some activities / strategies developed in
each class, it will be presented short descriptions (and
examples) for each one of the three mentioned classes
categories. In a “General” class (example) the teacher guides
the students with the intent to work / learn rhythmic notation.
All members of the class (including teacher) are organized in
a big circle (typical Off-Schulwerk principle). Teacher begins
improvising a simple “body percussion sound” and the entire
group is invited to repeat. Then, each of the students assumes
the “leadership” and creates “body percussion sounds”, which
all the group repeat in “question / answer” mode. Next,
students work in pairs. The challenge here is to discover the “spoken” rhythm of their own given names and associated them with “body percussion sounds”. Pairs present their creative work and all group repeat and make a verbal appreciation. In the second part of the class, and using unconventional symbols (lines, dots or / and other symbols), each student will try to write the rhythm that was created. At the end of this task, the teacher introduces basic conventional music notation (crotchet, quavers and respective rests) and asks the students to rewrite their rhythm according the conventional notation. The final step of the class is to present individual work. After the work has been discussed, students and teacher choose, and then play, a final body percussion of spoken phrases or pieces, which have the most interesting and imaginative rhythms and gestures that were created. The class ends with a collective appreciation and reflection.

In a “Music and Movement” category, we present an example of a class where students worked a song called using different tempo (Adagio; Andante; Moderato; Allegro). Like in “General” class, the group is organized in a big circle, and the teacher begins to do a simple “body percussion sound”, which the entire group repeats. After the “leadership” rotation, the teacher uses body percussion sounds and introduces the rhythm of the song. The next step is to combining spoken words of the song and body percussion. Students repeat, and then contribute with their own ideas (e.g. “Let’s do the song as if we were very happy… and now if we were very sad… like if we were babies… or very old...”). After trying all students’ ideas, teacher introduces progressively the melody of the song, using his voice combined with body percussion that students repeat and learn by imitation. According the lyric of the song, movement / dance is integrated in the sequence, and the song becomes a dance too. After some practice, student’s ideas are once again considered, and the class sings and moves in different musical forms until someone proposes do it in different tempo. At this stage of the class, teacher explains the different basic tempo (Adagio, Andante, Moderato, Allegro), invite students to try the song / dance in these different tempo. The different forms suggested before by the students are now combined with tempo chances in a final practical work / performance. A collective appreciation and reflection ends the class.

A “Music Laboratory” class example can be described as follows: students are invited to bring to class proverbs in order to convert them in a piece. Working groups are organized and the teacher asks them to create a musical, choreographic or drama piece using voice, body percussion, movement and / or dance and Orff Instrumentarium, based on the proverbs previously chosen. The most important rule is that the music should have a leading role and should be combined with speech / movement / dance / drama. Teacher provides Orff Instrumentarium in the middle of the classroom, and each group can try and experience the sound possibilities of the instruments. Each group must do a written register (score) of their musical ideas using conventional musical writing. The “gradual changes” (Crescendo, Diminuendo) must be included in the piece. Groups work autonomously over a specified period of time (e.g. 20 minutes) for later presenting their pieces, followed by an analysis / reflection of the outcome. In the end of the class, the teacher asks the students about their own work, the work of their peers and the relevance of Crescendo and Diminuendo concepts in music / choreography / dance performances.

V. RESULTS AND DISCUSSION

The results of this study have specific relevance for music educators interested on Csikszentmihalyi’s “flow paradigm” and music teachers using Orff-Schulwerk’s activities in a Musical Education context.

In Table 1 it is presented the global statistical results of the analysis of all components of AFIMA’s “Affective Indicators”.

<table>
<thead>
<tr>
<th>Grading parameter</th>
<th>Neither</th>
<th>Somewhat</th>
<th>Quite</th>
<th>Very</th>
</tr>
</thead>
<tbody>
<tr>
<td>Happy</td>
<td>19 (2,98%)</td>
<td>44 (6,90%)</td>
<td>220 (34,54%)</td>
<td>354 (55,57%)</td>
</tr>
<tr>
<td>Cheerful</td>
<td>25 (3,92%)</td>
<td>51 (8,00%)</td>
<td>218 (34,2%)</td>
<td>343 (53,85%)</td>
</tr>
<tr>
<td>Excited</td>
<td>31 (4,87%)</td>
<td>10 (16,64%)</td>
<td>269 (42,23%)</td>
<td>319 (47,76%)</td>
</tr>
<tr>
<td>Involved</td>
<td>18 (2,82%)</td>
<td>7 (11,37%)</td>
<td>249 (39,08%)</td>
<td>301 (45,71%)</td>
</tr>
<tr>
<td>Alert</td>
<td>14 (2,19%)</td>
<td>6 (9,57%)</td>
<td>302 (47,40%)</td>
<td>256 (38,07%)</td>
</tr>
<tr>
<td>Satisfied</td>
<td>13 (2,04%)</td>
<td>1 (1,59%)</td>
<td>197 (30,92%)</td>
<td>381 (59,81%)</td>
</tr>
<tr>
<td>Successful</td>
<td>11 (1,72%)</td>
<td>1 (1,59%)</td>
<td>255 (40,03%)</td>
<td>309 (48,50%)</td>
</tr>
</tbody>
</table>

Table 1. Qualitative Statistics of the global “Affective Indicators”

Regarding the lived emotions presented in the table 1, which occurred during the Orff-Schulwerk Music approach activities, the analysis of the global data refers to the tree classes’ categories previously mentioned and can be summarized as followed:
1. The majority of the students clearly lived "positive emotions" in all music classes;
2. Higher levels (Quite and Very) of “Affective Indicators” are directly correlated with positive lived emotions, e.g. **Happy**, **Cheerful**, **Involved** and **Satisfied** were mentioned with maximum level (Very) by more than 50% of the students;
3. Globally, more than 40% of all students lived positive emotions at maximum level (Very) in the taught activities. The “Somewhat” level of positive emotions was only referred by 10% of the students. Less than 5% of the students mentioned “Neither”;
4. The “negative lived emotions” only attained 1%. The higher level (Very) appears only three times (0.47%) on the negative emotion **Bored**. The most negative emotion is **Drowsy** lived by 1.09% of the students, presented in the “Quite” level. Three students (0.47%) felt “Somewhat” **Distracted**, and only one (0.15%) referred **Failure** in “Somewhat” level.

In Table 2 we show the statistical analysis regarding “general” classes produced the using of “Affective Indicators”.

<table>
<thead>
<tr>
<th>Grading parameter</th>
<th>Neither</th>
<th>Somewhat</th>
<th>Quite</th>
<th>Very</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>“Positive lived emotions”</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Happy</td>
<td>18 (5.90%)</td>
<td>36 (11.80%)</td>
<td>115 (37.70%)</td>
<td>135 (44.26%)</td>
</tr>
<tr>
<td>Cheerful</td>
<td>25 (8.19%)</td>
<td>34 (11.14%)</td>
<td>113 (37.04%)</td>
<td>133 (46.60%)</td>
</tr>
<tr>
<td>Excited</td>
<td>31 (10.16%)</td>
<td>47 (15.40%)</td>
<td>125 (40.98%)</td>
<td>98 (32.13%)</td>
</tr>
<tr>
<td>Involved</td>
<td>16 (5.24%)</td>
<td>33 (10.81%)</td>
<td>120 (39.34%)</td>
<td>128 (41.96%)</td>
</tr>
<tr>
<td>Alert</td>
<td>14 (4.59%)</td>
<td>41 (13.44%)</td>
<td>130 (42.62%)</td>
<td>111 (36.39%)</td>
</tr>
<tr>
<td>Satisfied</td>
<td>13 (4.26%)</td>
<td>32 (10.49%)</td>
<td>99 (32.45%)</td>
<td>159 (52.13%)</td>
</tr>
<tr>
<td>Successful</td>
<td>11 (3.60%)</td>
<td>40 (13.11%)</td>
<td>139 (45.57%)</td>
<td>114 (37.37%)</td>
</tr>
<tr>
<td><strong>“Negative lived emotions”</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sad</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Irritable</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bored</td>
<td>-</td>
<td>0</td>
<td>1 (0.32%)</td>
<td>3 (0.98%)</td>
</tr>
<tr>
<td>Distracted</td>
<td>-</td>
<td>3 (0.98%)</td>
<td>1 (0.32%)</td>
<td>0</td>
</tr>
<tr>
<td>Drowsy</td>
<td>-</td>
<td>0</td>
<td>7 (2.29%)</td>
<td>0</td>
</tr>
<tr>
<td>Frustrated</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Failure</td>
<td>-</td>
<td>1 (0.32%)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

In this category of classes and based on the “Affective Indicators” obtained in table 2, it is possible to highlight the following aspects:
1. “Positive lived emotions” always appear in “Quite” and “Very” levels in a range of 32% to 52% of the students;
2. Level “Neither” presents higher and most significant values in this category (e.g. 10, 16% **Excited** 8.19% **Cheerful**, 5.90% **Happy**) and all “negative emotions” referred in this study appear in these classes. These results seem to reveal that activities developed in “General” classes provide the less favorable moments for the students involved in this study.

The “Affective Indicators” of “Music and Movement” classes are presented on “Table 3”.

Table 2. Qualitative Statistics of the “Affective Indicators” in “General” classes

<table>
<thead>
<tr>
<th>Grading parameter</th>
<th>Neither</th>
<th>Somewhat</th>
<th>Quite</th>
<th>Very</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>“Positive lived emotions”</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Happy</td>
<td>-</td>
<td>4 (2.89%)</td>
<td>43 (31.15%)</td>
<td>91 (65.94%)</td>
</tr>
<tr>
<td>Cheerful</td>
<td>-</td>
<td>7 (5.07%)</td>
<td>33 (29.91%)</td>
<td>98 (71.01%)</td>
</tr>
<tr>
<td>Excited</td>
<td>-</td>
<td>8 (5.79%)</td>
<td>47 (34.05%)</td>
<td>85 (61.59%)</td>
</tr>
<tr>
<td>Involved</td>
<td>-</td>
<td>5 (3.62%)</td>
<td>40 (29.98%)</td>
<td>93 (67.39%)</td>
</tr>
<tr>
<td>Alert</td>
<td>-</td>
<td>4 (2.89%)</td>
<td>64 (46.36%)</td>
<td>75 (54.34%)</td>
</tr>
<tr>
<td>Satisfied</td>
<td>-</td>
<td>2 (1.44%)</td>
<td>35 (25.36%)</td>
<td>101 (73.18%)</td>
</tr>
<tr>
<td>Successful</td>
<td>-</td>
<td>3 (2.17%)</td>
<td>43 (31.15%)</td>
<td>92 (66.66%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grading parameter</th>
<th>Neither</th>
<th>Somewhat</th>
<th>Quite</th>
<th>Very</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>“Negative lived emotions”</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sad</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Irritable</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bored</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Distracted</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Drowsy</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Frustrated</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Failure</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 3. Qualitative Statistics of the “Affective Indicators” in “Music and Movement” classes
Concerning the “Affective Indicators” revealed on “Music and Movement” classes, we stress:

1. Students always felt positive emotions; in the “Neither” level neither students did not referred neither negative emotions, nor positive emotions in the “Neither” level. They always felt positive emotions;

2. For most of the students involved in this study, activities developed in under the category the “Music and Movement” classes generated positive lived emotions in the higher level (Very) for most of the students involved in this study (e.g. 73, 18 % felt “Very” Satisfied; 71,01% felt “Very” Cheerful; More than 60% felt “Very” Happy, Excited, Involved and Successful).

“Music Laboratory” classes provided the “Affective Indicators” presented on “Table 4”.

<table>
<thead>
<tr>
<th>Grading parameter</th>
<th>Neither</th>
<th>Somewhat</th>
<th>Quite</th>
<th>Very</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>“Positive lived emotions”</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Happy</td>
<td>1 (0,51%)</td>
<td>4 (2,06%)</td>
<td>62 (31,95%)</td>
<td>127 (65,46%)</td>
</tr>
<tr>
<td>Cheerful</td>
<td>0</td>
<td>10 (5,15%)</td>
<td>72 (37,11%)</td>
<td>112 (57,73%)</td>
</tr>
<tr>
<td>Excited</td>
<td>0</td>
<td>13 (6,70%)</td>
<td>97 (50%)</td>
<td>80 (41,23%)</td>
</tr>
<tr>
<td>Involved</td>
<td>2 (1,03%)</td>
<td>9 (4,63%)</td>
<td>89 (48,87%)</td>
<td>98 (50,51%)</td>
</tr>
<tr>
<td>Alert</td>
<td>0</td>
<td>16 (8,24%)</td>
<td>108 (55,67%)</td>
<td>70 (36,08%)</td>
</tr>
<tr>
<td>Satisfied</td>
<td>0</td>
<td>12 (6,18%)</td>
<td>65 (34,47%)</td>
<td>119 (61,34%)</td>
</tr>
<tr>
<td>Successful</td>
<td>0</td>
<td>18 (9,27%)</td>
<td>73 (37,62%)</td>
<td>103 (53,09%)</td>
</tr>
<tr>
<td><strong>“Negative lived emotions”</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sad</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Irritable</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bored</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Distracted</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Drowsy</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Frustrated</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Failure</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 4. Qualitative Statistics of “Affective Indicators” in “Music Laboratory” classes

Regarding “Affective Indicators” lived in “Music Laboratory” classes, we underline:

1. “Positive emotions” appear in the higher level (Very) for most of the students (e.g. 65,46% felt “Very” Happy; 61,34% “Very” Satisfied and 57,73% “Very” Cheerful).

2. Only three students chose the “Neither” level on “positive emotions (one in Happy and two in Involved);”

3. Students always experienced “positive emotions”, since negative ones have never been reported.

VI. CONCLUSION

In this research it is clear that that the activities taught using the Orff-Schulwerk approach raised more "positive emotions" by students than "negative" ones. For most of the students, these emotions were experienced in the highest possible level that AFIMA presents (Quite and Very). AFIMA enabled us to establish that through an Orff-Schulwerk’s approach children lived several positive emotions, which demonstrated to be significant in the way they acquire musical knowledge.

These results reveal that the use of the Orff-Schulwerk approach in students enrolled in the 5th and 6th grade of the Portuguese Educational System (aged between 10 and 12 years old) enhances “positive emotions” on their first formal compulsory music experience. We underline that flow is a single-minded immersion and represents the ultimate in harnessing the emotions in respect to performing and learning activities, where positive emotions are associated with situations that present opportunities (Goleman, 2005). Cognitive psychologists (Fiedler & Bless, 2001; Bless et al. 2004) suggests that positive and negative affective states selectively trigger different information processing styles, consistent with evolutionary principles, i.e., positive affect facilitates the use of internalized strategies using knowledge structures (assimilative thinking), while negative affect promotes a focus on accommodative thinking.

According to AFIMA “Affective Indicators” and based on the principle that positive and negative emotions facilitate distinct information processing and problem solving styles (Clore & Tamir, 2002; Fielder & Bless, 2001), the results presented seem to validate the formulated hypothesis that Orff-Schulwerk approach activities improve children to become better music makers / thinkers (creators), building a sense of confidence and interest in Music Education context, once, according Fredrickson (2002) and Fredrickson & Branigan (2005), in contrast to negative emotions which narrow the individual’s repertoire of thought and action, positive emotions such as joy, contentment and interest have the effect of broadening the thought-action repertoire and of building cognitive resources for the future. In this way, emotions can redirect and help to prioritize our thinking (Huppert & Whittington, 2003; Salovey et al., 2000) when channelled to energize the “Self / Consciousness” improvement (Csikszentmihalyi, 1990, 1997, 2002; Damásio 1995, 1999, 2010).

The connection of emotions with occurred “optimal experiences / flow states” will be the foundation of our hypothesis that emotions are most relevant for the development of musical learning. At this stage, the results of the study are valuable indicators on our ongoing longitudinal research, and demonstrated to be significant in the way children acquire musical knowledge.
ACKNOWLEDGMENT

INET-MD, Instituto de Etnomusicologia - Centro de Estudos em Música e Dança, Portugal and Department of Communication and Art | University of Aveiro, Portugal.

REFERENCES


Cottone, J. (2010). Orff in Middle School: An American Perspective”. In Ostinato – Music for Children / Musique pour Enfants, 36 (3), (pp. 4-6), Toronto; Carl Orff Canada.


