

## ARTICLE

# Different forms of students' motivation and musical creativity in secondary school

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## Abstract

Student motivation has been conceived as a crucial factor in the learning processes. However, research in motivation and creative learning in the secondary education music classroom has been limited. Student motivation is explored in this article through a collaborative action research study, in the form of several projects centred on the creation of music through group improvisation and cooperative composition, conducted over the course of five 1-year cycles, from 2008 to 2013. The aim of this study was to gain a deeper understanding of the aspects determining student motivation during creative learning processes. Three secondary schools in the region of Madrid (Spain), eleven third-year secondary school classes ( $n = 267$ ), teachers, researchers and artists participated in the study. Data were gathered through participant and non-participant observations, interviews, a classroom diary, and a questionnaire. In the findings, six intrinsically linked connected forms of motivation are grouped in three levels and are related to different factors emerged during the teaching and learning processes and connected to creativity.

**Keywords:** Student motivation; secondary education; musical creativities; collaborative action research

## Theories of motivation in secondary music education

Motivation represents a vast, complex and confusing topic, conceived as an important factor in the teaching and learning processes, from a cognitive, affective or social perspective (Wentzel & Wigfield, 2009). Student motivation in music education is described as a crucial factor in learning, 'dependent on the interactions between their characteristics, self-concept and goals and the characteristics of the immediate environment, including cultural and historical factors, the educational environment and the support they receive from family and peers' (Hallam, 2002: 232–233), as McEwan (2013) identified, or as in Schivitsa's model (2007), integrating the internal and external factors that determine student motivation.

Student motivation research in secondary education has been analysed, explicitly or implicitly, applying different psychological theories:

- (a) Attributional theory considers the internal and external causal dimensions in the achievement outcomes (Weiner, 2006). From an attribution theory perspective, Bolden (2009) suggested how soundtrack composition through real activities connects students to the world and give meaning and life. McGillen and McMillan (2005) considered the contribution of cooperative composition to the development of student identity linked to modification.
- (b) Expectancy-value theory explains how the value of an activity influences its importance to the individual (Eccles, 2005). Based on an expectancy-value motivation theoretical framework, McPherson and O'Neill (2010) analyse motivation for studying music

(competence beliefs, values and difficult tasks) related to other school subjects in a major study in different countries (e.g., McPherson et al., 2015). They inferred a general lower task value in learning music compared to other school subjects. It is reported that there has been an important decline in competence beliefs, interest, importance and usefulness during the school years on the one hand and an increased task difficulty perception on the other hand.

- (c) Goal theory focuses on the influence of the outcomes of an activity (Chen-Hafteck, 2007; Kaplan & Maehr, 2007). As a motivating proposal for students, Lage-Gómez and Cremades-Andreu (2019) articulates school composition as participatory and motivational process.
- (d) Self-determination theory (SDT) looks at the social conditions supporting these inherent conditions for learning (Ryan & Deci, 2009). SDT emphasises the type of motivation and distinguishes between intrinsic and various forms of extrinsic motivation. Wong (2016) established the link between well-being and ‘musical engagement’ in certain conditions to satisfy basic psychological needs.

The mentioned theories highlight the various lenses through which the phenomenon of motivation in the music classroom can be addressed. However, the use of one or another specific theory is insufficient for a comprehensive understanding of motivation in the classroom. For all these reasons, elements from all of them have been used to deepen their analysis and to present a model derived from the present study.

### Student motivation and creativities in secondary education

The relationship between intrinsic motivation, domain knowledge and creative skills has been addressed in literature (e.g., Amabile, 1996). Creativity and interest increase substantially when the creative individual can concentrate ‘freely’ on the work, rather than on imposed guidelines; thus, the more intrinsic the motivation, the more creativity and the more extrinsic the motivation, the less creativity. However, could such a link not be reciprocal, that is, could not a high degree of motivation be considered conducive to creativity? On the contrary, does creativity influence an individual’s motivation? From a sociocultural approach, musical creativities have been described as a form of social practice that take place in different forms (Burnard, 2012), explicitly and implicitly connected to motivation in schools. From this perspective, Moran and John-Steiner (2004) proposed a conative type of motivation, focused on the social aspects in creative work. Likewise, and according to the perspective of ‘group flow’ (Sawyer, 2003), as a shared experiential state, the connection between motivation and creativities might be considered in music education. In the field of secondary schools, Mawang, Kigen and Mutweleli (2018) established the relationship between goal motivation and creativity due to the impact on the intrinsic interest in the task and might predict musical creativity. Leung (2004) suggested the impact of the task in student motivation; in this line, Chen (2020) exposed how the using of mobiles and tablets motivates students significantly in composing activities.

From this perspective, this research aims to gain a better understanding of student motivation in creative learning processes and their implications for practice, considering the various multidimensional aspects that are possible to differentiate during the creative learning processes, and the convergence of the individual, social and cultural planes. We have proposed the following research questions:

- What was students’ motivation during the projects based on music creation?
- What aspects determined students’ motivation in the learning processes?
- What different forms of student motivation could be described in the didactic projects?
- What is the connection between students’ motivation and creativity in these projects?

## Didactic projects

The didactic projects in this study were carried out from 2008 to 2013 in three state secondary schools in the region of Madrid, Spain, located in Rivas Vaciamadrid (2) and Arganda del Rey (1), in the southeast of this city. Eleven groups, 267 students (50.9% men and 49.1% women), in the third year of secondary school participated, aged 14 to 15 years. Besides, three music teachers (3), Student Counselling Department teacher (1), university researchers (2), artists (composer and painter) (2), participated. In order to preserve the anonymity of the participants, we have coded them by using the letter I, informant, followed by a number.

'We hate theory-based learning, it's boring' I1 (male). This usual perception of the demotivating effects of conventional declarative teaching and learning strategies was the beginning of this research project. Five didactic projects focused on the creation of music, characterised by its constant evolution, and including the use of visual aids. Students therefore set posters or paintings to music and composed soundtracks through cooperative composition and group improvisation as didactic strategies, based on student-centred didactic principles focused on participatory and reflective experimentation with sound (Schafer, 1965; Paynter & Aston, 1970).

For all the pupils, the didactic project in which they have taken part has been their first contact with musical creation. In this sense, the use of visual aids had a didactic aim: (1) composition guide, or a form of music score, considering it was the first time that the students had attempted music creation; (2) a source of motivation, we are immersed in relational and audio-visual spaces and increasingly so in the virtual environment, especially young people; and (3) the consideration of the cross-cutting nature of the arts from the perspective of their ties, as a reflexive element in which different languages merge into one unique artistic manifestation.

The five cycles implemented are summarised below:

1. Cycle I. El Orfanato Project. Year 07/08. 24 lessons each class. Secondary School. Arrangement of a soundtrack for the film *The Orphanage*, taking as a reference the main theme through group improvisation.
2. Cycle II. El Orfanato II and Modern Times Project. 32 Lessons each class. Year 08/09. Secondary School 1. Creation of the soundtrack to *El Orfanato* through cooperative composition and group improvisation. Composition of a soundtrack for various scenes of the film *Modern Times* through cooperative composition.
3. Cycle III. Bullying Sounds Project. Year 09/10. 12 lessons each class. Secondary School 1. Creation of a soundtrack on bullying based on a series of posters from an exhibition on bullying, through cooperative composition and collective improvisation.
4. Cycle IV. Painting Sounds Project. Year 10/11. 14 Lessons. Secondary School 2. Musicalisation of paintings by the painter Ana Sánchez, through group improvisation. In this way, we plan to tackle cooperative composition in the creation of soundtracks Collaboration between professional composer and ICT recording studio.
5. Cycle V. Presto and Paperman Project. Year 12/13. 26 lessons each class. Secondary School 3. Creation of a soundtrack, music and effects, for the animated short films *Presto* and *Paperman*.

The background context influenced each year's planning in two different ways, depending on the students and resources, and the secondary school's specific characteristics. The planning, preparation and implementation processes in each were similar each project: the planning and preparation were developed during the first and mid second term and the implementation from the second midterm until the end of the year. The didactic projects have been characterised by their constant evolution from a didactic perspective. This has become evident through the processes of evaluation and reflection throughout the various cycles: (1) the active participation of

students has evolved increasingly to the point of taking part in the design and development of all phases of the project; (2) teaching strategies: there has been a constant evolution towards a specific design of group improvisation and cooperative composition as didactic strategies, conceived as dialogic and participative processes of construction of musical knowledge centred on sound experimentation; (3) participation of collaborating artists from the 4th cycle (painter) and 5th (composer); (4) increased collaboration of other music teachers and others in the projects from the third cycle onwards; (5) the use of different types of images in the creative processes, both still images through paintings and posters and moving images through scenes from films or short animated films; (6) the use of a variety of musical instruments and voice, among which: keyboards, drums, Spanish guitars, electric guitars, bass guitar, marimbas, xylophones and other small percussion instruments, and technology through mobile applications.

The projects have represented a spiral search process through the first three cycles through cooperative composition and collective improvisation that have crystallised in a second phase during the last two cycles through two differentiated projects, focused on the musicalisation of pictures through collective improvisation in the fourth cycle, and the creation of soundtracks through cooperative composition.

### Research method

From the epistemological perspective of teachers as researchers, an action research (AR) study was carried out (McNiff & Whitehead, 2002). Research in the field of educational action demonstrates a practical intention to comprehend and transform reality as a distinctive human ethical practice (Kemmis, 2010), which represents a form of practical knowledge that unifies the idea of inclusion between theory and practice (Elliott, 2009). As it has been developed in the present study, action research is considered: (1) a reflective practice which states the importance of a deep reflection on the learning and teaching processes; (2) emphasising its ethical dimension from a participatory perspective; (4) it has been conceived as an emergent form of educational change; and (5) it integrates learning, teaching, teacher development, curriculum development and assessment, research, and philosophical reflection in a unified educational conception. Thus, a transformation of our classroom was proposed through an axis comprised of the creation of music and the active participation of students, participation being understood from a pedagogical and research-based perspective. We became immersed in a cyclical process in which the students, teachers, and artists were involved in a shared social space aimed at experiential interdisciplinary artistic creation. This study has been approached from a mixed perspective in terms of data collection techniques and instruments, which have allowed for an in-depth understanding of the phenomenon addressed.

### Participants

The students who participated in this study mostly had a basic musical knowledge acquired in primary education. In addition, they had not previously participated in musical projects based on the creation of music.

The selection of the 267 participants was carried out through a non-probabilistic, incidental or convenience sampling, which was made up of students to whom the researchers had access, so it is no intention to generalise the results.

### Instruments

The data were gathered based on multiple perspectives focused on students' motivation, its determinant factors and its link with the diverse musical creativities' characteristic in the didactic projects, using qualitative and quantitative instruments: (a) participant observation by the teacher, written down in the class diary, (b) 41 semi-structured individual interviews and 14 group interviews, (c) non-participant observation was conducted by the colleagues from the Music

Table 1. Questionnaire elaborated *ad hoc*.

Item	Content
1	The activities in the project have been motivating for me.
2	Group work has motivated me.
3	I have improved my musical knowledge.
4	I feel capable of carrying out any musical creation activity.
5	I have learned to compose or improvise music with the class instruments.
6	I have learnt cooperative composition or group improvisation during the project.
7	I have learnt to compose or improvise a melody on a harmonic base.
8	My musical creativity improved during the project.
9	We have improved as composers or improvisers.
10	We have improved our music creations during the development of the project.

Department in cycles 1 to 4 and by teacher from the Student Counselling Department through the observation of six sessions during different stages of the project, and (d) *ad hoc* questionnaire design, divided into two dimensions: Motivation (items 1 to 4) and Creativity (items 6 to 10). Participants answer according to a five-point Likert scale, in which 1 means low degree and 5 means high degree (see Table 1). This is validated by experts in the field of education. The reliability of the questionnaire through an internal consistency test Cronbach's  $\alpha = .90$  was a high reliability.

### Procedure

In this study, a revision of the initial data has been carried out, which has made it possible to complement the results with new analyses, which explains the time elapsed between the completion of the projects and the writing of the article. The data have been coded and triangulated to answer the research questions through the use of statistical analysis (SPSS 25 Software) and observational and narrative analysis of the classes and discourses obtained through the individual and group interviews (Atlas.ti Software). Data were gathered during each cycle. The qualitative analytical framework for the study was based on an iterative process by reading and re-reading the data (Rice & Ezzy, 1999) in order to provide an in-depth description of the studied phenomenon. Based on the categories of motivation and creativity established in the research questions, the following subcodes have been established inductively: extrinsic, intrinsic, process, starting, learning, and social related to student motivation, creativity, and creativity. Besides class environment and participatory learning, the following quantitative analyses have been carried out: (a) descriptive statistics, to ascertain the percentage of response given by students in the questionnaire, (b) Friedman test for repeated measures, accompanied by Wilcoxon test in order to analyse the differences in motivation among cycles, and (c) Spearman's rho correlation coefficient in order to analyse the relationship between motivation and creativity in each of the cycles.

### Ethical issues

The students and their families gave written consent to participate and the video recordings. The permission of the management staff of the secondary school was requested, thus facilitating the resources required to carry out the project.

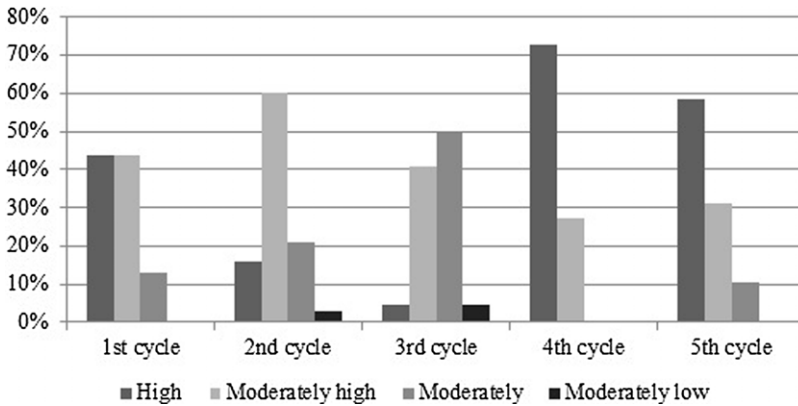


Figure 1. Level of motivation.

## Findings

We present a series of findings emerged from the didactic practice, which are sustained in a theoretical framework within the conceptual, didactic and methodological level of the comprehension of motivation in the classroom and answering the research questions.

### *Students' motivation in the projects*

The non-participant observer in cycles 1–3, remarked, ‘The really interesting thing about the project was how the pupils were radically changed. In general, I think they grew as people’. I2 (female). A colleague from the Music Department who participated in the fourth-year class observed, ‘The educational project posed a series of issues and initial uncertainties due to students’ need to be involved, to collaborate and to have a positive attitude. They showed a high level of motivation. This motivation was reflected by individual and collective attitudes, their enthusiasm during the lessons, and their attentive creative involvement’ I3 (female). In an interview, one student said, ‘We were enthusiastic, fired by our satisfaction with the group activities and the sense of creativity that was fostered’. I4 (male). Students were active in proposing several improvement proposals and deeply engaged in the performance and in agreed decisions regarding all the aspects related to the projects.

A strong sense of motivation was revealed in the students’ responses. The cycles percentage indicates: 1<sup>st</sup> cycle = 43.60%, a high degree; 2<sup>nd</sup> cycle = 60% moderately high degree; 3<sup>rd</sup> cycle = 40.9%, a moderately degree; 4<sup>th</sup> cycle = 73% high degree; and 5<sup>th</sup> cycle = 58% high degree (see Figure 1).

To complete the information obtained in the previous figure, the Friedman test was implemented in order to ascertain how motivation evolved through the five cycles. The result was statistically significant ( $\chi^2 = 29.141$ ,  $p = .000$ ). Wilcoxon test accompanied by Bonferroni’s correction was implemented to analyse the differences between the different cycles. The results indicate the motivation in cycle 5 is higher than in cycle 3 ( $z = -3,579$ ,  $p = .000$ ), in cycle 4 motivation is higher than in cycle 3 ( $z = -3,696$ ,  $p = .000$ ), as well as in cycle 2 which is higher than in cycle 3 ( $z = -3,169$ ,  $p = .002$ ).

The motivation expressed by students is related to the development and evolution of the didactic projects, with the exception of the cycle 3. The cause might be the theme of the posters set to music, based on bullying. It cycles 4 and 5 could be considered as didactic crystallisation. This aspect is also related to the characteristics of the visual support used during the different cycles, and of the didactic strategies, either collective improvisation or cooperative composition.

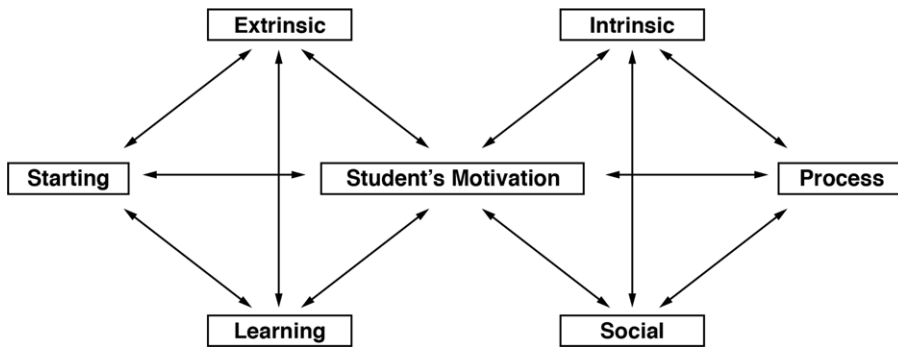


Figure 2. Categorisation of different forms of students' motivation.

### ***Determinant aspects in student motivation during the learning processes***

Non-participant observers reported the positive environment in the class and high level of motivation, observing a highly positive class environment and attitude. The related positive environment emerged gradually, in a continuous but not always regular form. It was related to the non-formal nature of the learning processes, managed by the students' with the guide of the teacher. In this sense, 'An informal collective working environment: entertaining and pleasant', commented a participating observer in the fifth cycle. It was significant a point of inflexion in the projects, with an evident improvement of the class environment, given rise to different forms of positive emotions, both individually and collectively (group, individual student and teacher), interconnected and multidimensional.

Considering the music classroom as a form of social representation, with a melting pot of musical experiences, meanings, and values, both delineated and inherent, it became evident a strong sense of identification with the music they created, individually and group, through group interaction and the different roles played by the students. The creative process led to positive group vibrations through the generation of a group identity in their own music.

Thus, the non-formal nature of the learning processes and students' engagement in the project played a decisive role in the positive classroom environment, connected with the high degree of students' motivation. Furthermore, it led us to identify a link between students' identification with their music, that is to say the creative process and different forms of creativity, the class environment and the students' motivation.

### ***Different forms of students' motivation***

From the data triangulation, different forms of motivation have been identified and categorised during the teaching and learning process from an individual and sociocultural perspective. They are interlinked, to different degrees, not separate or independent from one another. They emerged and categorised from the lens of: (1) the psychological perspective related to their relationship with the music/subject; (2) the creative didactic projects developed in the classroom; and (3) the sociocultural learning processes perspective, developed in the classroom (see Figure 2).

### ***Intrinsic and intrinsic motivation***

Self-motivation is referring to students' who like music very much and learn music in formal or informal contexts. They do consider themselves to have musical skills. They showed a strong sense of engagement during the performing, composing or improvising activities, taking on an active role and being involved in the creative process: Student 9 'likes music very much, in particular to play the drums' (19, male). Although he does not have extracurricular music classes, he learns on a

self-taught basis. He showed a strong sense of engagement during the activity, taking on the role of a leader and being involved by the whole group in the creative process. This was revealed in an interview during the research study and also 2 years after the project: 'I miss the classes and I remember everything that happened when I watch the soundtrack we made – it moves me'. 'I miss the classes and I remember everything that happened when I watch the soundtrack we made – it moves me'. (I9, male).

External motivation is related to students who do not like music all that much, although they listen to it in social contexts or at home. They do not place much value on music as a subject, and they are not attracted to musical composition, improvisation or to performing. Besides, they do not usually believe they have musical skills. Nevertheless, the academic results for most subjects are satisfactory. The only motivation for them was to pass the subject, and they regarded it as an external reward. Student 10 does not like music all that much, although he 'occasionally listens to it at home' (I10, male). He does not place much value on music as a subject and is not attracted to musical composition or to performing. He does not consider himself to have musical skills. Though, his academic results for most subjects are acceptable and he wants to study for a university degree. His only motivation was to pass the subject, and he regarded it as an external reward. He chose a non-performing role in the project.

#### *Starting and process motivation in the projects*

The aspects that determined the initial and process motivation, during learning, highlighted by the students in the interviews and questionnaire are categorised below:

1. Novel innovative creative project: The novelty of the project created high expectations. This could be considered as an important factor in their initial motivation: 'It was something new, and I think it caught our attention. To be able to see if we were going to be able to do something like that. Expectations were very high. We didn't really think we were going to get what came out' I5 (female).
2. Its procedural nature: Student interests and preferences responded to initial questions, where they had to order a series of activities linked to music according to their own interests and preferences: Play, Listening, Composing, Improvising, Singing and Theory. In all cases and with very few exceptions, the predisposition on the part of students towards procedural activities has been a constant throughout the research, as can be seen from the following results. It has strong implications on the creative processes of learning and teaching in secondary education.
3. Group learning: A crucial factor underlined by students in accounting for their high level of motivation: 'I liked many things, but I would say the group activities' and 'What we liked best was to be part of a group' I6 (male):
4. Musicians in the classroom: Students' developed musical attitudes in the classroom in a non-verbal group learning process. The students' role in the classroom as musicians led to the construction of meaningful musical experiences: 'I learned to think and act as a musician' I7 (male).
5. Participatory process: The projects were agreed upon with the students. The students were actively involved in the learning process and resulting product and design but also in the co-partnering. The student participation was evaluated as a transversal transformational feature of the study and as a conception of music as a vehicle for education. This change of role by students was revealed through comments like, 'we felt free to compose' and by the value they placed on the end product: 'It was our soundtrack', I8 (male).

From the perspective of the projects, it is possible to differentiate between the initial and the process motivation during the projects. The following aspects were highlighted by the students.

### *Social motivation and motivation to learn music*

Social motivation is referred to students who like music, especially listening at home. Nevertheless, they are not interested in playing instruments in formal or informal contexts. They are motivated by practical activities given their cooperative group methods: 'I love being part of a team' (I10, female). They were attracted to the project and to the positive sense of group identity that was forged, underlining the cooperative learning as one of the most important learning outcomes. They were motivated by the social element of the learning process, more than the music itself, 'From initially feeling integrated, we went on to become united'. (I11, female). They emphasise not only what they learned but also how they learned it.

Motivation to learn music relates to students' who enjoyed the projects very much, as many of them referred in the interviews, and they underlined the lot of music they learned, although their perception of their musical abilities is often poor. They enjoyed the projects and their attitude during the project was proactive, contributing with their own ideas. They like listening to music but they do not learn it as a non-curricular subject, although in the interviews they did say that they would not mind doing so. Student 11 likes listening to music, but he did not want to learn it as an extracurricular subject, although in an interview he did say that he would not mind doing so. He enjoyed the project 'very much and learned a lot of music' (I11, male), although his perception of his musical skills is low. His attitude during the project was proactive, contributing with his own ideas. Sometimes he showed a lack of confidence due to his low perception of his musical talents.

### *Connection between students' motivation and the creative processes*

In this section, we analysed whether there was a relationship between students' motivation and the creative processes they developed in each cycle. The results of Spearman's rho correlation analysis show a significant strong correlation between motivation and creativity for cycle 1 ( $r = .532, p = .006$ ); for cycle 2 ( $r = .622, p = .001$ ); cycle 4 ( $r = .670, p = .000$ ), and cycle 5 ( $r = .714, p = .000$ ). This indicates the close relationship between the aspects analysed. When motivation is higher, the students' perception of creativity advances in the same direction, a circumstance that evolved increasingly throughout the process with the exception of cycle 3.

Moreover, the non-participant observer in cycle 4 underlined: 'The musical learning, focused on creativity, has been reinforced by a motivating practice, agglutinating content, they are excited', corroborated by students perspective on creativity development: 'I didn't know I had such an imagination', and connected to motivation 'the progressive satisfaction with their own improvisations was an essential element in the progress of the project, in terms of musical product' (Teacher, class diary).

### **Discussion and conclusions**

Student motivation in the classroom represents an essential element in learning processes, especially from a student-centred learning approach in which students assume an active role in their own learning. During the study, students displayed a significant degree of motivation in the didactic projects based on musical creativities, with variations depending on the didactic strategy or the visual support used.

Motivation as a characteristic of the individual has been extended to a complex set of interactions between individual, contextual, ecological and socialisation factors (Wentzel & Wigfield, 2009). It is confirmed a wide range of factors that determine students' motivation in the music classroom. Thus, from a sociocultural approach of motivation, the classroom could be considered as a symbolic space in which a wide variety of factors come together that influence the learning processes. It seems appropriate to underline the implications of how the theories of psychology explain fundamental aspects that should be taken into account in the classroom and also within the framework of the social context in which they occur. However, the traditional

classification of extrinsic and intrinsic motivation, applied to the educational field of compulsory education, and more specifically to music education, could be considered incomplete, since it does not reflect the importance of the social aspect of education or processes, a determining aspect in education.

In line with the theories presented, we have been able to corroborate how the positive emotions expressed during the classes have favoured a musical atmosphere and student well-being, corresponding to a high level of motivation. This aspect is connected to the importance attributed by Ryan and Deci (2009) to social conditions for learning, corroborated in the field of musical education by Wong (2016). McEwan (2013) reported on the influence of the environment on student learning. In addition, the influence of results on student motivation has been shown, in line with Kaplan and Maehr (2007).

Additionally, the importance of student expectations regarding the activity itself must be considered. This is not only related to the value assigned to the subject but also to the value that students give to the activity in the classroom (Eccles, 2005). The importance of the significance of the learning attributed by students, the expectation of success in the results and the negative influence of excessive difficulty for students, not so much at the beginning as during the process, could be extended to our case and verified by McPherson and O'Neill (2010). Students have valued the creation of their own music as an element that has favoured their motivation in the classroom, by giving them a positive internal attribution that is reflected in their degree of identification and satisfaction with the results obtained. As well as the corroboration of the importance of tasks attributed by students as 'real', such as the composition of a soundtrack. This corresponds with Bolden (2009) and the influences of cooperative work in soundtrack composition (McGillen & McMillan, 2005). In this sense, the data obtained show a close relationship between the students' perception of motivation and the development of creativity, which was stronger in the last cycles and reveals the development growth of the didactic project.

Therefore, by integrating these perspectives, we can advance in a comprehensive understanding of motivation in our classroom. In other words, only by understanding the existence of a series of factors that determine motivation can students advance and promote it. Thus, improving the understanding of a variety of diverse forms of motivation in our classroom, which in turn would be linked to each other, would benefit the teaching and learning processes. The similarity of an interconnected circuit through communicating vessels would explain how students' motivational processes have taken place in the classroom. This interrelation has been suggested from a theoretical approach by Hallam (2002), and our study has corroborated and extended this approach.

Three different levels of students' motivation are proposed. The first is determined by the subject him or herself, that is, from an individual perspective that focuses on the desired end product. Hence, we can distinguish between intrinsic and extrinsic motivation. For the didactic project, at a second level, we can distinguish between initial motivation, in this last case based on expectations regarding the activities, and the motivation during the teaching and learning processes, based on how it was developed. At a third sociocultural level, tied in with the collective environment and processes carried out in the classroom, we can distinguish between social motivation and the motivation to learn music.

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