Current state and prospects of teaching-learning processes in music teacher education in Spain: a literature review

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Abstract

The teaching-learning process, both in general and in the specialty of Music Education, has evolved and its explanatory models have become increasingly complex. In view of current challenges, it is relevant to analyse the elements that are considered necessary to train music teachers to become competent professionals. This study identifies characteristics found in specialised Spanish and international scientific literature on teaching-learning processes in music teacher education, referring to their current state as well as to desirable developments and future prospects. Although a certain overlap among emergent categories in Spain and those in other countries can be observed, we also found differences of degree, as well as interesting divergences.

Keywords: Music Education; teacher education; educational methods; literature review

Introduction

The context of this literature review is a larger research project[1] in the area of music teacher education in Spain.

Whenever we refer to the teaching-learning process (henceforth: T-L), we are dealing with the core of education. However, if we took only T-L processes into account, our vision of all that goes on during teacher training might be partial. An overview of the history of educational research shows that perspectives and vantage points have shifted. According to Pérez Gómez (1989), the oldest line of research was the prediction-product perspective, which attempted to establish a cause–effect relationship between the teacher's traits and the students' academic performance. Good academic results were determined by the teacher's *good judgement*, *self-control*, *esteem*, *enthusiasm* and *adaptability*.

That focus was subsequently deemed insufficient to grasp what goes on in the classroom; the next model, still somewhat current today, can be termed *process-product*. It establishes a cause–effect relationship between the teacher's interaction with the students and their academic performance, purporting to identify factors that produce *efficient* teaching, a concept that appears recurrently, among others, in descriptions of quality of education in terms of *good practice* (Carr, 1997; Jorquera-Jaramillo, 2017; Juodaityté, 2004; Stake, 2001). Studies are still being carried out from that perspective, as can be seen in some of the titles ('Methods') of teacher education courses in Anglo-Saxon countries (Colwell & Webster, 2011; Regelski, 2002; Randles, 2015; Vasil, Weiss, & Powell, 2019). However, the need of reflecting on the great number of factors that intervene in T-L processes is increasingly perceived. Studies such as that of Shulman (1986) highlight the complexity of classroom events and show that T-L processes are part of a reality in which many other factors, such as the classroom environment, play a role. Certain authors, including Vygotsky

(1978, 1986) and Bruner (2005), underscore the important role played by social context in T-L processes. Further relevant factors include the relationship between students and teachers (Wertsch, 1985, 1998) and the gradual handing over of responsibility to the students themselves (Wood, 1986). Spanish authors have also provided relevant sociocultural research contributions in the area of education (among others, Rebollo Catalán, 1999).

Another line of investigation can be designated as the *mediational* model (Pérez Gómez, 1989), which ascribes importance to the cognitive processes that occur in the teachers (the teacher as a *learning mediator*) and in the students (the *student as a mediator*), along with the reciprocal influence between them. The cognitive processes of teachers and students exert a significant influence on T-L processes, as can be seen in lines of research such as *the teacher's thinking* (Sandín, 2003) and *the mental life of the student*, as well as the interactions between both (Jorquera-Jaramillo, 2010a; Nielsen, 2013; Westerlund, Partti, & Karlsen, 2015; Winne & Marx, 1977).

The most recent line of research, the *ecological* model, additionally views the classroom as an environment in which sociocultural interaction takes place and in which meanings are constructed (Doyle, 1977; Shulman, 1986). A further model, similarly elaborate as Shulman's (1986), attempting to represent the full complexity of T-L processes in the classroom, has been developed by Ferrández (1997). Other authors have likewise pointed out that education cannot be currently grasped without taking all its complexity into account (Mason, 2008), particularly social cognition, extended cognition and learning on the Internet (Ballester & Colom, 2017).

Teacher education: models and components

The models which have emerged in the history of educational research have become increasingly complex. Teacher education modules need to ensure that future teachers can acquire elements that allow them to analyse – and act upon – all the aforementioned factors, as well as upon their interrelations, including the aspect of student assessment. Relevant contributions should be taken into account in this area, including Fautley (2010, 2015).

To designate the basic ingredients of teacher training, it is crucial to identify from which perspective such factors are proposed. Pérez Gómez (2000) proposes four perspectives:

a) The *academic* perspective associated with traditional teaching, focusing on the 'knowledge' the student is supposed to acquire.

b) The *technical* perspective of a Positivist slant, which regards teaching as the scientific application of specialised knowledge and the teacher as a tool that facilitates the acquisition thereof. This focus can be observed in two variants: one which views education as the *training* of specific measurable abilities, and the other, which associates education with *decision-making*.

c) The *practical* perspective, which regards the teacher as an artisan or a craftsperson: knowledge emerges from experience and practice, which are supplied in a feedback loop by knowledge previously acquired through the same means.

d) The perspective of *practical reflection for social reconstruction* views teaching as a social practice that is being continually associated with ethical options stemming from values that provide acting principles and guidelines for T-L processes. This perspective is centred on the critique and the conception of knowledge as social reconstruction and on the inclusion of research-action as a tool for ongoing learning. Teacher education is thereby oriented towards *comprehension*.

Porlán and Rivero (1998) identify two main areas in theories of teacher training and within which those theories' components can be located: *theory* and *practice*. The first, exclusively theoretical model includes knowledge about school subject content and the education sciences; the
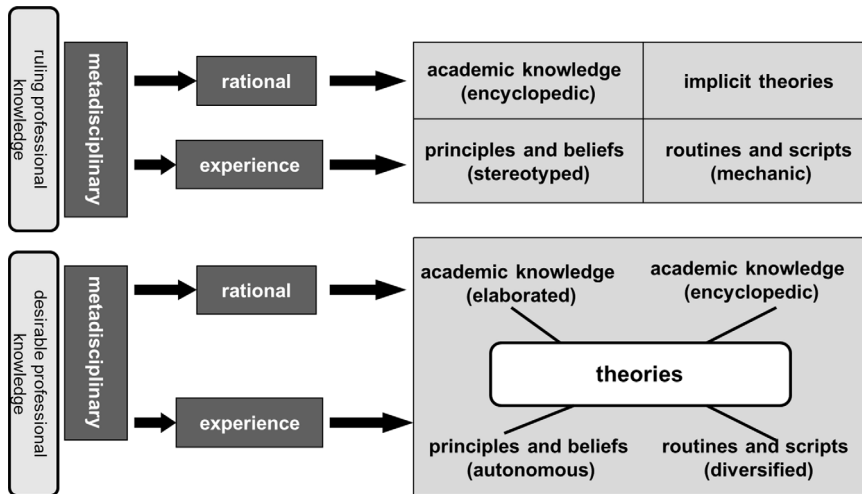
Figure 1. Components of professional knowledge according to Porlán and Rivero (1998, p. 64).

second, practical model comprises former knowledge, competencies and technical capabilities related to practice; and the third model comprises theoretical knowledge of school subject content as well as practical knowledge gained from experience, but without connecting the two. Music teacher education in some parts of Europe has tended to follow a model similar to the third one, in which music-related content is imparted (theory) as well as knowledge based on experience (practice) (Jorquera-Jaramillo, 2010b).

It is thus pertinent to ask what kind of professional knowledge music teachers should be required to have. Porlán and Rivero (1998) affirm that a teacher's professional knowledge consists of education science content as well as specifically musical content, but in the form of pedagogical content knowledge (PCK) (Bolívar, 2005; Shulman, 1987), along with meta-disciplinary content. As a reflection of current professional knowledge, all these types of content derive from the areas of reason and experience, and they include (1) encyclopedic academic knowledge, (2) implicit theories, (3) principles and beliefs (usually stereotyped), and (4) routines and guidelines for action (which tend to be mechanical and repetitive). However, if one chooses to work with this eminently practical and at the same time thoroughly complex type of knowledge, it is possible to achieve worthwhile professional knowledge. It stems from the same areas mentioned above: (1) and (2) theories that comprise elaborate academic knowledge, along with encyclopedic knowledge; (3) a series of principles and beliefs that tend to become autonomous, and (4) diversified routines and guidelines. Figure 1 illustrates these components.

Desirable, worthwhile professional knowledge gives rise to a personal instructional model, in which, according to García Pérez (2000), the following dimensions can be analysed, related to concepts regarding:

a) the objectives pursued by a classroom action;
b) the subject matter that is being imparted;
c) the students' interests and ideas;
d) teaching, that is, pedagogical method;
e) evaluation;
f) curriculum;
g) the relationships between classroom events and the social system within which they are embedded.

Music Education in Spain does not feature T-L theories other than those presented above. It is nevertheless an area with its own specific history and background. In Spain, it has only recently been associated with educational research due to the fact that the educational value of music was recognised in this country at a relatively late date. As a subject, music only started to be included in primary and secondary education curriculum after the promulgation of the LOGSE Act in 1990. Although that educational law introduced a number of new pedagogical perspectives and a series of important changes in the area of Music Education, it took an entire decade for it to become adequately applied all across Spain. The history of Music Education in Spain is thus essentially one of *traditions*, which research has only recently begun to challenge and modify. Music Education in Spain has diversified and become enriched in the 21st century thanks to the contribution of systematic research, and a number of Spanish researchers have attempted to observe and evaluate the progress achieved in countries that have already accumulated a greater degree of experience in terms of educational innovation.

The theories presented above are admittedly not very recent but continue to hold sway as no new theories capable of partially or totally replacing them have been proposed, at least not in Spain. In addition, some specific contributions need to be taken into account because they are still widely applied in pedagogy. Many teachers nevertheless feel a clear need to innovate and renew a series of practices related to T-L processes. Two new laws have been promulgated in Spain in the area of education: the LOMCE Act in 2013 and the LOMLOE Act in 2020, foreseeing the adoption of *competencies* as a benchmark in every type of school environment. This has led to innovation in T-L processes.

In the following section, we present the aforementioned contributions provided by theories that are still currently in trend. Most of them are closely related to teachers' concern for updating and renewing their educational practice. One such theory is *project-based learning* (Kilpatrick, 1918; Kokotsaki, Menzies, & Wiggins, 2016), which, although having existed for over a century, has not been widely applied in Music Education in Spain. *Problem-based learning* (Allen, Donham, & Bernhardt, 2011; Freer, 2017) is closely related to it.

One of the most recent approaches in education is the *Flipped Classroom* (Bergmann & Sams, 2014), reflecting its authors' concern of finding a way for students to be able to work with conventional, mostly conceptual content and still achieve a learning experience. *Flipped Learning* is even more recent (Tourón & Santiago, 2015). Laying its emphasis on the learning process, flipped learning is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space. Flipped learning is closely associated with the integration of digital technology in the classroom, as well as with approaches that emphasise important possibilities for interaction with others, such as *gamification* (Pho & Dinscore, 2015; Prensky, 2001), which can be carried out with or without the aid of technology. In Music Education, it would be important to note that the game element associated with music learning has long been an intrinsic part of musical practices in early childhood education as well as in primary education. A pioneering example can be found in the game-like situations proposed by Martenot (1960, 1965), designed to help children learn elements of conventional music theory. At higher educational levels, the need is often felt to give school subjects a 'serious' stamp, and the game element was not highly regarded until it acquired a greater degree of credibility and respect thanks to computer games. Associated with the use of digital devices, *Computational Thinking* (Papert, 1980; Wing, 2006; Zapata-Ros, 2015) has great current relevancy in view of the importance that electronic devices and Information and Communications Technologies (ICTs) have been gaining in the classroom.

Further teaching approaches are more closely associated with concern for student competencies, such as developing students' *creativity*. *Creativity* studies have a long history, but only in the last decades has the need been acknowledged for *Convergent Thinking* to be relativised (Guilford, 1950) in order to offer a wider berth for *Divergent* or *Lateral Thinking*

(Caeiro Rodríguez, 1988; De Bono, 1986; Viteri, Chimarro, & Gavilanes, 2021); the latter is currently the most widely used term and gives rise to corresponding research.

Closely associated with creativity, *Design Thinking* (Brown, 2008; Efeoglu et al., 2013) comes from the business sector and emerged specifically in projects aimed towards product design. It is closely related to the kind of creative processes typically used in design and could thus be associated with knowledge regarding creativity and lateral thinking. Design Thinking could thus have its place in the context of Music Education projects. *Emotions* also play an essential role in learning, and the subject has been investigated by a series of authors since the 1980s (Gardner, 1983; Salovey & Mayer, 1990; Timoneda, 2012). Further important areas are *inclusion and teamwork*, as highlighted in the *Cooperative Learning* approach (Pujolàs, 2012), closely associated, in turn, with *Learning Communities*, which have been evaluated as Successful Learning Activities (Aubert, García, & Racionero, 2009; Flecha & Larena, 2008). The latter are well-articulated proposals sustained by a considerable body of literature, mostly in Spanish, since the concept was developed in Spain. Finally, the *Service-Learning* approach (Palos & Puig, 2006) aims to achieve a higher degree of sensitivity towards social transformation within the area of education. Service-Learning usually consists in specific projects designed to provide a service in the community where the school is located: such activities can take place in hospitals, retirement homes, prisons, etc.

All these currents deserve more extensive treatment in order to be adequately and more profoundly understood, but that would lie beyond the scope of this article. It is nevertheless interesting to note that they are mostly proposed as techniques or closed methods. None of them is presented as a contextualised procedure that takes all the elements of a T-L process into account.

This article therefore attempts to offer a synthesis of the trajectory of music teacher training in Spain ever since the early 2000s, when innovative laws were introduced, thereby marking a milestone in Music Education in this country. We shall also attempt to identify and evaluate common traits among Spain and abroad, as well as a series of diverging elements that should be taken into account in Spain, and which in other countries with a greater amount of experience have already demonstrated their virtues and benefits, and which it would be advisable to incorporate in the training of pre-service music teachers. Thus, in our attempt to analyse the current state of pre-service music teacher training in Spain as well as new, desirable, or recommendable, hitherto scarcely applied approaches, we utilise the most relevant publications of the last two decades.

Method

Latorre, Del Rincón, and Arnal (2003) find that 'education is conceived as an intentional, global, contextualised act that is mostly governed by personal and social rules, and much less by scientific laws' (p. 36). Rather than attempting to provide causal explanations, our main purpose consists of interpreting and trying to understand educational phenomena. Our intention is to reveal assumptions, values and beliefs that remain subjacent in educational practice; studies such as the current one attempt to offer an adequate medium of reflection, thereby serving to transform, correct or improve educational practice (Latorre et al., 2003).

From a qualitative perspective (Bisquerra, 2000), this literature review consists in a descriptive and comparative analysis of data found in source documents with the purpose of obtaining useful, necessary information in order to respond to this study's objectives (Flick, 2007). Social reality is reflected and constructed through documents, because they provide us with different versions of events (May, 2001). 'A great part of the importance and interest of documents becomes evident when we consider them in mutual relation with one another. We develop a grasp of the ideas, issues, and policies treated in those documents through comparative analysis' (Blaxter, Hughes, & Tight, 2008, p. 225).

Objective

This study of qualitative nature intends to provide a response for the two following major issues:

What are the major concerns regarding the teaching-learning process in music teacher education in the 21st century?

What are the differences and points in common between these concerns on a global level and specific concerns in Spain?

Attending to these research questions, this study's objective consists in identifying the characteristics of T-L processes in music teacher education, as found in the sample of selected documents, incorporating contributions published in English-speaking countries.

Procedure

On these bases, we carried out our research in several phases. In the first phase, we ran a literature review of documents with the help of keywords such as *music teacher education*, *teaching-learning processes* and *methodology*, in both Spanish and English, entering them in specialised databases. The research period covered by the documents ranges from 2000 to 2021, because we find that the year 2000 was the date when it was possible to begin to appreciate the effect of profound changes in Music Education in Spain: by that time, the first Spanish legislation (LOGSE) offering compulsory Music Education to all citizens had been implemented, additionally introducing important changes in the initial training of pre-service teachers. Our documentary sources stem from a reduced number of countries, all of which can look back on an extended research tradition: articles mainly in English, as well as texts in Spanish. We then analysed the content of the document sources we found, verifying that they included our research subject and excluding texts related with subjects such as Early Childhood Music Education or specialised university-level music teaching (in music academies and conservatories). The following phase consisted in defining and classifying a series of emergent categories. The number of categories was reduced by progressively adjusting their components' common aspects until the groups of categories became manageable: after having formally explored and codified the data, we re-elaborated a category and subcategory system, progressively subsuming less general categories under other, larger ones (Strauss & Corbin, 1994). In the final phase, the resulting categories were placed in relation to those defined by Marcelo and Vaillant (2018) and with the currents we presented in the Introduction section, thereby reviewing the data distribution obtained from the source documents, to which we applied a descriptive and comparative analysis (Fideli, 1998). The phases of our research are depicted in Fig. 2.

The main limitation our study might present is that the source documents we handled originate from a limited number of countries outside Spain: mainly territories where English is spoken as a native language. We also limited the time span from the year 2000 to 2021.

Results

Within the selected period, our chosen keywords yielded a total of 271 articles: 193 in English and 78 in Spanish. Apart from referential categories, we found nine emergent macrocategories, listed in Table 1.

T-L processes in English-language publications

The analysis of the English-language literature is presented first. The most recurrent category is related to *pre-service student teaching (4)*, which analyses the connection between theory and practice: the attempt to relate contents with their application in real-life guided classroom
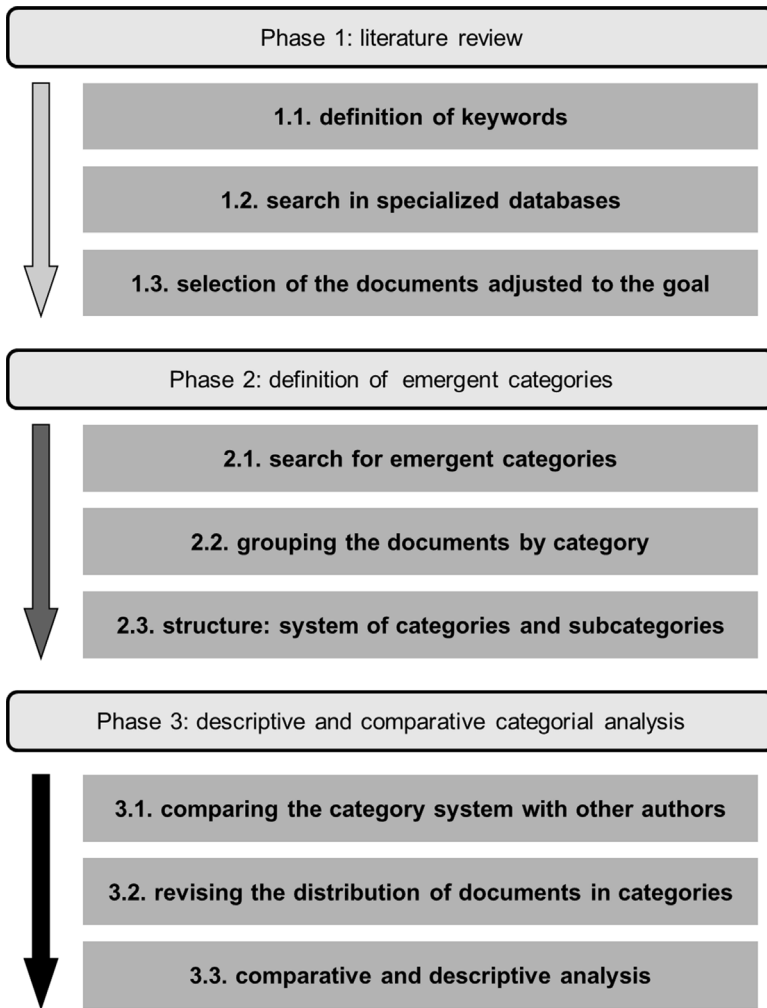
Figure 2. Research phases in this study.
Source: Own elaboration.

experiences, along with the corresponding pedagogical and methodological implications. In a study conducted in Greece, Kokkidou, Dionyssiou, and Androutsos (2014) found that teaching practices offered a unique opportunity for pre-service teachers to build bridges between theoretical knowledge and teaching experience. Similar results were found by Conway (2015) in the United States, giving importance to the merging of theory and practice in relation to content. In such practices, interrelations are constructed on the basis of the teacher trainees' own abilities, personality and work ethic; mentoring strategies should include modelling, thereby facilitating learning opportunities along with regular discussion and reflection activities (Palmer, 2018). Music teacher educators can help future teachers develop a more profound grasp of reality by including field experience in a variety of cultural environments and by encouraging self-reflection (VanDeusen, 2019).

Given the importance of *pre-service student teaching (4)*, there is a clear need for educational programmes to integrate this training as far as possible into their *curricula (1)*, including more practical experiences in order to better interrelate theory and practice, thus increasing the opportunity for pedagogical dialogue (LeGette, 2013). One conceivable way of carrying out such

Table 1. Emergent categories

Category: topics developed in the texts	Description and subcategories
1 Contents	*What* is taught: subject matter – Transversal topics – Repertoire – Music teacher education curriculum – Type of classroom activities – Instructional materials
2 Professional development	In-service teachers' learning needs
3 Teacher–student interaction at university	*How* subject matter is taught; classroom strategies
4 Pre-service student teaching	Students' learning experiences carried out in school classrooms
5 ICTs	Teaching strategies involving ICTs
6 Student-related concerns	Student motivation
	Student access to training in Music Education
7 Students' and teachers' conceptions and ideas	Students' and teachers' beliefs, conceptions and ideas
8 Educational policies	Discussion and planning of music teacher education
9 Music teacher professional identity	Personal life as a music teacher; attitudes and commitment to the music teaching profession

activities, developed in the United States, is co-teaching (Kim, 2019), in which the interaction between the classroom teacher (mentor) and the student becomes a cooperation. Millican and Forrester (2018), also in the United States, find that the preparation of new teachers for such an intellectually and socially complex task requires a pedagogy that ensures that they learn to teach by offering them feedback regarding their practice along with support designed to encourage their self-efficacy (West & Frey-Clark, 2019).

Also within this category of *content (1)*, one of the desirable characteristics at the curricular level is the identification of alternative training routes that can promote competencies such as social capabilities. It is not enough to produce generations of excellent and expert musicians; the personal and professional success of future music teachers depends on their ability to interact, relate and cooperate with others (Johnson, 2014). Formulas for this approach include work on social skills, values and attitudes (from the Greek perspective: Kokkidou et al., 2014), or cooperative ventures such as Service-Learning (highlighted from the American perspective: Forrester, 2019).

In this category of *content (1)*, another frequently voiced concern in the face of a globalised, diverse society is the endeavour to give priority to the multicultural dimension of teaching; certain authors find that most university students do not have the necessary knowledge to handle the social and cultural needs they will encounter in their music classes, as occurs, for instance, in the United States (Robinson, 2017). This points to the need to innovate the *method applied in university classrooms (3)*. Several authors propose solutions via a series of recurrent opportunities (Forrester, 2019) in courses that handle musical diversity by featuring corresponding repertoire, teaching techniques and appropriate curricular focus areas (Howard, Swanson, & Campbell, 2014). VanDeusen (2019) finds that some music teachers respond appropriately to growing cultural diversity in their classes by featuring multicultural repertoire.

Closely related with the latter concern is the one associated with *music teacher professional identity (9)* (Sieger, 2019). Isbell (2015) finds that as syllabi are gradually examined and updated,

music teachers should graduate well prepared to become agents of change. If they are aware of how music influences our personal and professional lives, and if they use their own music as a pedagogical tool (Pellegrino, 2015), they will be able to involve students in many different types of class projects and situations.

Finally, some authors highlight the elements of *professional development initiatives (2)*. Bautista, Yau, and Wong (2017) and Bautista and Wong (2019) criticise such professional development proposals (without differentiating among countries) for being sporadic, unsystematic, and for featuring contents and aims that are too heterogeneous: such proposals thus end up having little impact on educational change (although this is not the case in Singapore). In the case of the United States, proposals related to the need to update *ICT competencies (5)* (Doherty, 2019), to face demanding teacher assessments, to integrate reflective practice models into the profession or to acquire tools to teach students with functional diversity (Parker & Draves, 2018) stand out. In relation to these initiatives, it should be noted that teachers are particularly interested in proposals that are directly applicable in the classroom.

T-L processes in Spain

Publications featuring study concerns regarding T-L processes in the area of music teacher education are relatively rare in Spain: the most frequently recurring categories are those related to *contents (1)* and *teacher–student interaction at university (3)*.

It is noteworthy to point out certain studies focused on *teacher–student interaction at university (3)* that display an interest and concern for teaching models, styles and strategies, as is the case of Serrano, Zamorano, and González-Martín (2020) who analyse current curricula in Spanish universities. Many of them focus on the students' perception, both in general liberal arts studies that include music (Benarroch, Cepero, & Perales, 2013) and in specifically musical studies (Esteve et al., 2016). Rare are those, such as Bautista (2010), who conduct an exhaustive analysis of case studies, directly analysing what goes on in the classroom. All these studies point out the importance of the practical model and display interest for models that encourage critical, reflective and outside-the-box thinking. Many authors positively value the importance of research, innovation and experimentation in the area of real practice (Esteve et al., 2016), avoiding the traditional model in which the teacher was regarded as a mere transmitter of specific knowledge contents and developing, instead, the student's capacity to value the effects of different teaching tools (Bautista, 2010). It is important for future teachers to experience in themselves the effect of such improvements brought about by innovative pedagogical practices in order to become convinced of their importance (Hernández Portero, 2014), and that the practice offered by university-trained teachers should be a model worthy of application (Gil Frías, 2018).

Another one of the most frequently voiced concerns, linked to the previous one, is the importance ascribed to achieving a balance between musical and pedagogical training, as well as connecting theory and practice; as in the case of English-language articles, the balance between the two is valued as positive, but a deficit is often noted. Several Spanish authors recommend starting from practice to arrive at theory from a pedagogical vantage point (Gil Frías, 2018). With a particular concern for the students' point of view, Esteve et al. (2016) show that it is essential to design learning activities, along with methods and strategies to teach how it is done. Hernández Portero (2014) criticises the fact that university music courses tend to feature content that is eminently theoretical, which does not allow students to acquire the pedagogical tools they are going to need as future teachers. Several authors highlight *pre-service student teaching (4)* as a means for the pre-service teacher to acquire identity through observation, scrutiny and reflection (Eguiluz, 2018), even to the point of introducing students to the area of research (Ibarretxe & Jimeno, 2004).

Another of the most frequently recurrent categories is that related to *content (1)*: achieving a thematic evolution over time, initially dealing with certain musical aspects such as voice training (Gassull, Godall, & Martorell, 2000), or the relationship between music and language (Lafarga, 2000).

Further areas are the integration of musical creativity in initial education (Gil Frías, 2018) or certain transversal topics. One of the greatest concerns we encountered (as in English-language literature) is the treatment of interculturality. Certain authors analyse how it is treated in syllabi (Blanco & Peñalba, 2020), particularly criticising the lack of treatment of intercultural education and concomitant instructional practices as applied in teacher education: they observe 'how the treatment of cultural diversity is still not given the importance it deserves' (Bernabé, 2012, p. 81). Authors thus point out that future teachers need to be prepared to confront new challenges stemming from globalised social development by offering training that is both theoretical and practical, which should be incorporated in school practices. They also point out that music increases the potential of intercultural pedagogy. Other authors such as Rodríguez-Quiles (2006) criticise 'Eurocentric study programs in which Western "art" music is the guiding thread' (p. 1), suggesting that 'initial training for music teachers on all educational levels should adopt a pluralistic awareness for which multiple outlooks are required' (p. 3), integrating a wide range of styles, cultures and periods including our own. Following up on the concern regarding a series of transversal topics, certain gender issues likewise stand out (Díaz Mohedo, 2005), along with emotional pedagogy (Balsera, Nadal, & Fernández, 2017), the focus on service-learning as a space for social transformation (Gillanders, Cores, & Tojeiro, 2018), and the focus on learning that is based on projects and teamwork (Berrón & Monreal, 2020; Blanco & Peñalba, 2020).

Just as in the English-language articles, particular prominence is given to the current concern for *ICT (5)*. Certain authors analyse how it is approached in syllabi (Blanco & Peñalba, 2020), while others voice a concern for unequal treatment the students have received in previous training, or in education they receive in university (Hernández Portero, 2014). Interest is also shown in improving *student-related concerns (6)* in aspects such as motivation, autonomy, attention to diversity, creativity and improvisation; several authors point out the importance of their adequate methodological application if they are to become truly effective, defending active methods such as the flipped classroom, which encourage a process of sequential empowerment (Casanova & Serrano, 2016).

This all leads to a concern about *educational policies (8)* regarding how formal university education should be designed and planned. Some studies analyse university curricula, the students' former knowledge, musical instructional work in the classroom, as well as pedagogical or musical deficiencies, as a necessary prior step towards improving the university training of future music teachers (Aróstegui & Cisneros-Cohernour, 2010). Many point out the need of revising syllabi in order to be able to train critical, reflective and creative professionals (Blanco & Peñalba, 2020) who can 'sufficiently criticize and transform existing social and cultural practices' (Rodríguez-Quiles, 2006, p. 18): this concern is likewise voiced outside of Spain.

Discussion and conclusions

Evidently, similarities and differences can be noted between Spain and other countries. They indicate a series of recommendable future lines of action that can lead to improvement; lines that mark the path that should be followed to reduce the delay that can still be observed in Spain in terms of educational innovation. In view of the large quantity of information we reviewed, we now choose to concentrate on the most relevant aspects. Regarding the sample of documents on which this paper is based, the prevalence of certain countries in the examples we selected for this analysis does not reflect the full variety in the authorship of the articles and contexts we studied on the whole.

The characteristics of T-L processes in music teacher education in the 21st century mainly reflect a new opening towards complexity, covering a number of interrelated issues, along with aspects of the theories presented in the Introduction section. Some articles present specific protocols for classroom actions that need to be meticulously followed, as had been the case in active models. Perhaps with the best of intentions, such detailed protocols still reflect the *technical* perspective (Pérez Gómez, 1989) and leave little room for the teacher's creativity. The other

tendencies are likewise present in our literature sample; the academic perspective is the one least often encountered.

As indicated above, the most frequently represented category is the one regarding *contents (1)* related to subject matter; nevertheless, the range of possible types of content is appreciably diverse. In the *transversal topics* subcategory, *Service-Learning* is seldom treated in Spanish-language articles, whereas it appears much more frequently in English-language publications, which offer a rich variety of service-learning projects to educate teachers: entire journals are devoted to the subject. Service-Learning is the most represented referential category in English. Other transversal topics, presented by Spanish authors, are *harmonious coexistence* as well as gender issues (Cabedo-Mas & Díaz-Gómez, 2016; Díaz Mohedo, 2005). Issues of *inclusion* are likewise found, associated with the functional and cultural diversity one encounters in classrooms in Spain. The latter theme requires greater terminological precision, since it is termed *multiculturalism* in an international context, whereas in Spain it is referred to as *interculturality*, with an emphasis on communication among cultures (Stainback & Stainback, 1999). Similarly, international articles refer to *emotional intelligence*, whereas Spanish research tends to focus on its educational application by using the term *emotional pedagogy*. This category can be associated with one of the disruptive proposals introduced by Marcelo and Vaillant (2018), who emphasise the importance of the socio-emotional dimension.

Among the referential categories, it is worthy to note that most of them are barely present in Spanish Music Education, or entirely absent, as is the case of *Computational Thinking* or *Design Thinking* (perhaps because it is assimilated to other creative practices). *Lateral Thinking* is likewise scarcely represented; on the other hand, there is a great deal of Spanish-language literature on *Creativity*.

Repertoire is a key category in Music Education, and it is often associated with *popular music* as well as with the particular concern for the inclusion of music stemming from oral traditions in different parts of the world, thereby encouraging an important widening of horizons through the encounter with other cultures. The work carried out by a series of authors with the repertoire and instruments of popular music reflects the need, voiced by Marcelo and Vaillant (2018), to include informal learning in teacher education. Another similar aspect is the concept of *decolonisation*, reflecting the desire to deal with repertoire that lies beyond 'canonized' classical tradition (West, 2019).

Few texts are devoted to *evaluation practices*, a subcategory of *Teacher–student interaction at university (3)*; this is one of the dimensions proposed by García Pérez (2000). Continuing with this category *(3)*, regarding the recommendations set out by Marcelo and Vaillant (2018), their idea of internationalisation of Music Education is not present in the articles reviewed in this study. However, the literature does feature a tendency to open horizons towards musical cultures of different countries in the form of multicultural or intercultural experience.

Our analysis reveals the absence of the category *Students' and teachers' conceptions and ideas (7)*. This is due to the fact that topics related to this category are not mentioned as leading issues; instead, they are subordinated to other, more relevant interests. On the other hand, the *professional development* category *(2)* is not mentioned in the case of research in Spanish because of its minimal presence in the selected sample.

To sum up, the panorama presented by characteristics we found in the literature reviewed in this study differs decisively from Music Education based on tradition: instead, it reflects the complexity of the teaching profession and of T-L processes. We note a series of innovations and broadening of horizons towards more topical pedagogical visions, as can be seen in the frequent appearance of subjects such as transversal topics and emotional pedagogy. Other aspects, however, are absent, as is the case of *Communities of Practice* (Wenger, 2006), which are nevertheless often mentioned in international Music Education conferences and which are represented by a series of proposals in pedagogy and other disciplines (Azcárate & Cuesta, 2012). The focus on communities of practice highlights the exchange among colleagues through teacher networks. Neither did we

find literature related to *Learning Communities*, a typically Spanish line of research (e.g., Ferrada & Flecha, 2008).

The general panorama is encouraging. Further research would need to be conducted to find out what is really going on in music classrooms in primary and secondary schools. All of this can work in favour of improving the initial training of Music Education teachers, leading to corresponding benefits for their future students.

We believe that investigations such as the one presented here can work in favour of the improvement of Music Education in general and Spanish Music Education in particular. It is necessary to learn from others, to find out what works best and to incorporate what they have been successfully applying for many years. It is important to assess what makes us similar and what makes us different, and if something that makes us different helps us to improve, we should take it into account by reflecting on how to implement it in our specific context. Moreover, all this contributes to nurture the non-conformist, critical and innovative attitude that every teacher should necessarily have and that will improve the T-L process for generations to come.

Note

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