

Presentation: Music education, looking from the past to the future

Presentación: La educación musical, una mirada del pasado al futuro

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Music education in Spain is still present as a residual course in the education curriculum governed by general regulations –early childhood education, primary education, compulsory secondary education, and the baccalaureate– as well as university-based teacher training for these stages. This is also the case for education governed by special regulations, for example music conservatories, where despite the requirement to complete teaching placements as part of the curriculum, the pedagogy specialism (Basics of Pedagogy I-II and Music Education Teaching I-II) is taught in a theoretical way without considering active methodological and teaching processes. In music schools, which are not subject to regulations and where the term «education» should perhaps play a more prominent role, it has the same space with more space for the 3-7 age group in the music and movement subject. Spain's most recent educational reforms have seen music education relegated to general classes. This issue of the **revista española de pedagogía** aims to help showcase a number of pieces of research that meet the desire of professionals in music education to boost the profile of this field.

The general lines of what is understood by music education throughout the history of civilisations up to the twenty-first century have been set out, both regarding the sciences that are more or less tangential to it (pedagogy, psychology, sociology), and the areas of work which combine to form a single concept (developing musical perception, voice and instrumental training, the importance of dance and movement, the culture of music and its musicians from all aesthetics throughout history, creation and composer, new technological resources, music as therapy, etc.). This is a concept that requires constant methodological-didactic reflection and which should ensure creative development, from learning the language of music.

Each of the fields described in the previous paragraph involves not only classroom work, but also training for professionals in the fields as each of them clearly requires the relevant musical specialisation (instruments, vocal, motion, composition, etc.), and regarding the art of teaching they require teacher training. This two-fold training shapes the concept of what, in other forums, I have called the *musician-teacher*. This figure is inherently

broad-based, and given the structure of our university studies, which do not include art education (music and dance conservatories), must be trained in the field of research. This virtual musician and teacher (if I may use the term) who is constructed in the closing paragraphs must enquire, analyse, condense, examine in depth, etc., how the area is developed in all of the aspects mentioned and how to respond in the classroom, updating their activity based on innovation and educational research, continuous training and a new field of action as a researcher.

All the areas of work involved in music education (music, pedagogy, and didactics), at each of the educational stages mentioned, for all of the sciences to which the field is related, and with different focuses (from practice to theory) are currently areas for innovation and research, transfer and dissemination, from the stage, the classroom, and the laboratory as a unit, something the psychologist Piaget (1970) defined as a scientific space.

How is the professional we have just described present in Spain? The training of music professionals in Spain occurred specifically in conservatories, in advanced schools, that until now were not linked to universities. At present, students who have completed higher studies in music will obtain the higher qualification in music with the appropriate major, a qualification that is included in level 2 of the Spanish Qualifications Framework for Higher Education and is equivalent to the university bachelor's degree qualification, enabling them to pursue university master's and doctoral degrees.

The music studies available in Spanish universities are restricted to the field of musicology, and since 1984 have developed as follows: Licenciante Degree in Musicology (Official State Gazette of 17 December 1984); Licenciante Degree in Musical History and Sciences (Official State Gazette of 2 June 1995); and at present the Bachelor's Degree in Musical History and Sciences, available at the universities that provide it (Organic Law of 12 April 2007, regarding Universities and Royal Decree of 29 October 2007, Setting Out the Planning of Official University Courses).

As for teacher training and the presence of music education in the general education system, the first references in curricula date back to the General Law on Education and Funding of Educational Reform (LGE) of 1970. Under this law, university-level primary teacher training courses were added, and music education was present in both the training of primary school teachers and the curricula for General Basic Education (EGB), albeit as part of the area of dynamic expression and not as a speciality in itself.

In 1990, with the approval of the Organic Law of General Planning of the Educational System (LOGSE), primary teacher training courses that until then had been general programmes started to cover areas like music education as specific fields, leading to specialisms such as Teacher Specialising in Music Education, a teacher with a particular identity in primary schools where music formed part of the specific area of art teaching, along with plastic arts and drama. The profile

of the students who took the music education specialities was that of a trainee musician, according to Morales's data (2008), with 53.1% of students (see Table 1) who

studied the specialities having musical studies (intermediate and higher level), and, more importantly, having a vocation to be musician-teachers.

TABLE 1. Entry routes to teaching for teachers specialising in music (2009).

Music studies before starting the course		Frequency	Valid per cent
Valid	Yes, intermediate level	88	46.3
	Yes, basic level	60	31.6
	No	28	14.7
	Yes, higher level	13	6.8
	No answer	1	0.5
	Total	190	100.0

Source: Own elaboration.

With the approval in 2013 (9 December) of the Organic Law to Improve Educational Quality (LOMCE), the requirement to study art teaching in primary education was eliminated, with full competence in these subjects being placed in the hands of the authorities of the autonomous regions. Art (primary) and music (secondary) have come to be regarded as «optional subjects» that can be taken depending on the regulations and programming of the educational offer that each educational authority establishes and, where appropriate, what the educational centres offer. The reality is that music is still present in compulsory teaching and music teachers still form part of the teaching bodies as specialists in the centres.

Spain's entry into the European Higher Education Area (EHEA) involved ma-

jor changes in its university system. Although Spain joined with the Bologna Declaration in 1999, university courses were mainly regulated in 2007. Beyond the general regulations established, the Ministry of Education and Science (MEC) decided to include primary school and early years teaching qualifications among the regulated ones, with the Order from the Ministry of Education, Science, and Innovation (ECI)/3854/2007, of 27 December, Establishing the Requirements for Verifying Official University Qualifications Allowing the Exercise of the Profession of Early Years Teacher and Order ECI/3857/2007, of 27 December, Establishing the Requirements for Verifying Official University Qualifications Allowing the Exercise the Profession of Primary School Teaching. Each of these degrees comprises 240 ECTS credits, 30 of

which can be dedicated to what have been called qualifying majors in line with the objectives, cycles, and areas of primary education. While a long-standing demand of the primary teacher training schools to convert primary teaching qualifications into qualifications equivalent to the old licenciade degrees was achieved, a new change in paradigm obliged the training of generalist teachers with minimal specialisation instead of the training of specialist teachers which had been the case with the application of the LOGSE in 1991.

In this regard Oriol (2005) states that:

If the reform is implemented in the terms that the Primary Teaching Network

proposed to the National Qualifications and Accreditation Agency (ANECA), the initial training of primary school music teachers will suffer a serious setback and primary school pupils will be taught this art subject inadequately or will no longer be taught it. The solution at this time lies with the Ministry of Education and Culture and the Autonomous Regions, who will have the last word on the directives of the syllabuses that will lead to convergence with Europe. (p. 5)

According to this Order, the syllabus for the Degree in Primary School Teaching must, as a minimum, include the following modules (see Table 2):

TABLE 2. List of training modules for the Degree in Primary School Teaching-Music (4 years).

Module	No. of credits	Subject
Basic Training	60 ECTS	— Learning and development of the personality — Educational processes and contexts — Society, family, and school
Discipline teaching	100 ECTS	Teaching and Learning of: — Experimental Sciences — Social Sciences — Mathematics — Languages — Music, plastic, and visual education — Physical education
Placement	50 ECTS	Teaching placements, including the Final Bachelor's degree project — The placement will be done during the three cycles of the Primary Education lessons.
Majors (optional)	30-60 ECTS	

Source: Own elaboration.

With regard to the majors, the Annexe-Section 5 states:

Qualifying majors of 30 to 60 European credits that are pertinent to the objectives, cycles, and fields of Primary Education may be offered in these courses, in accordance with what is stated in sections 17, 18, 19, and 93 of Organic Law 2/2006, of 3 May, on Education, as well as those that train people to perform activities associated with the educational competences stated in this Law.

With regard to teaching placements, the directives require that the students undertake placements as a generalist teacher and one period as a specialist teacher in the case of students who opt to take one of the majors available at the university where they pursue their studies. Accordingly, students may choose not to complete the major on offer, taking the optional subjects (outside the major pathway) that they choose and selecting their own curricular path. As for the final degree project, the rules state that it can be linked exclusively to the major or can be on general educational topics.

The loss of space dedicated to the specialisation in music education in the training of future teachers is considerable. We cannot speak of a specialist teacher with these data, as specialised training for the three training blocks required will not fit into such a short space of time: just a single semester for musical training per se, methodological training, and didactic training.

As for the initial training of the teachers who impart music in secondary edu-

cation and the baccalaureate, the most striking thing is that it has never been regarded as specific training. In 1995, Royal Decree 1692/1995 of 20 October regulated the professional teaching specialism qualification. Music teaching staff in secondary education institutes (IES) had to hold the higher conservatory qualification or a licenciante degree (in the field of musicology or another speciality with music studies) and complete a teacher training course (*Curso de Aptitud Pedagógica*–CAP). From 2007, with Order ECI/3858/2007, of 27 December, Establishing the Requirements for Verifying Official University Qualifications that Entitle their Bearers to Practise the Professions of Teacher in Compulsory Secondary Education and Baccalaureate, Professional Training, and Language Teaching, training became a postgraduate course with a duration of one academic year (60 ECTS), a course that gives access to doctorate courses. According to Royal Decree 1393/2007, of 29 October, Establishing the Planning of Official University Education (Section 11.1), as mentioned above, a doctorate is defined as the third cycle of official university studies, leading to the acquisition of the skills and abilities relating to quality academic research.

The fact that it is necessary to have taken the Master's in Compulsory Secondary Education (MESOB) to be able to sit the competitive exams to become a secondary school teacher or a music and scenic arts teacher has meant that there is a greater number of music professionals taking doctoral courses, and so research in this field has increased. These studies

are based in faculties of education where a specific line has been created for research into the field of teaching of musical expression, as well in the musicological lines present in faculties of philosophy and letters.

Innovation/research in the two areas that underpin our two disciplines, music and music teaching, is limited to the branches of arts and humanities and social and legal sciences respectively. In both of these branches, with the study of different topics and the variety of methodologies used, we must not forget that any innovation/research must respond to the scientific study of human processes, whether they be historical-philosophical, educational-experimental, or compositional-interpretative, that give value to objective data on music as a social phenomenon, as a teaching-learning discipline, and as an art in space and time.

Concentrating on innovation/research into music education and taking into account all of the argument set out so far, there are many topics that can be described, analysed, and studied in the field of music teaching, at any of the educational stages identified above, considering all of the variables present in any educational situation. On this matter, Marchesi and Martin (2000) state:

Methodological problems are also important. The correlational nature of most studies makes it difficult to state that a given variable is a cause or effect of a second variable, or that the changes to both depend on a third one. ... Therefore, it is important to enrich the study methods

used: use longitudinal data; include quantitative and qualitative measures; use measurements with sufficient capacity to detect the differences that occur between schools and within schools; use multivariable and multilevel analysis to limit the influence of the variables; incorporate case studies understand the changes in the variables that have shown a greater occurrence in the prior statistical analyses. (p. 114)

From this viewpoint, any element present in the educational process is a suitable subject for quantitative/qualitative study. These elements include the material resources (centres, spaces, materials, etc.), human resources (the teaching staff and their initial-continuous training, profile, social projection, skills, professional development, etc.), up to the implementation of the curriculum resources (the curriculum, the course plan for the subject, the methodology and didactics used, results, evaluation, etc.), both within the discipline and in informal and/or multidisciplinary contexts.

This special issue of the **revista española de pedagogía**, dedicated to music education, presents various pieces of research, in the framework of the ideas in the overview we have just presented.

The first article is a «Bibliometric analysis of academic output in music education in Spain», in which the academic output in the area of music education is analysed based on different variables, providing a snapshot of the development (in this case from 2000 to the present day) of the real situation in the general academic field in

comparison with other fields and also specifically in different topics in the field. The article's data were gathered from Web of Science's Core Collection database. Evaluation of the different variables studied showed that there is a need to increase training for musician-teaching-research professionals, a need to increase research in the field of music, and music education in particular, and to value a more scientific outlook on the discipline based on research and innovation.

The next two articles are dedicated to primary and secondary education respectively: the first article to «Musical training for Primary Education graduates in the context of Madrid» and the second one to «Music in secondary education: interest in content according to students and teachers in year four of compulsory secondary education». The former argues that initial training for teaching staff under current legislation is insufficient for tackling a specialism like music in primary education, and that it is necessary to create training spaces for specialisation courses to complete the musical training of future teachers. The second article argues that the presence of music in the secondary education curriculum is insufficient, that it should be more interdisciplinary, more practical, and more up-to-date, and rely more on information and communication technologies. One of the conclusions reached in this latter article, which should be grounds for review by authorities and teachers, is that a lack of cohesion in educational sectors is a decisive factor in the support for the presence of music in compulsory education, and as a consequence of this the article

goes on to offer an in-depth study of the curricula in place, their sequence (progress in implementing objectives, content, criteria, and evaluation standards) and their interconnectedness from early years education to teacher training programmes.

In recent decades, many authors (Slovoda, Gardner, Hargreaves, Levitin, Ryan, and Lacárcel Moreno, among the most noteworthy) have researched the benefits of learning and performance of music for the human being in general and in childhood in particular, both with regards to the development of musical intelligence and in relation to emotional intelligence. The article, «Reflections on musical intelligence», continues from the two previous ones, providing an in-depth consideration of the role of music in the integral education of the child and not just in regard to learning music; the authors go further and state that musical intelligence involves a series of skills and capacities that involve different parts of the brain and relate to other skills, capacities, and things learnt by humans beyond learning to play an instrument. Music education is presented as an area that boosts instrumental learning capacities, capacities involved in the development of musical perception. Morales (2008) suggests working on the following musical capacities in the development of sound perception: awareness, observation, attention, concentration, consciousness raising, discrimination, focussing, identification, developing memory, analysis, synthesis, and musical thinking. These capacities are that are also necessary and vital in learning any discipline.

The next article is dedicated to vocal expression in adolescence and the problems caused when the male voice breaks: «The development of the male voice during adolescence: a research-based pedagogy». This article focusses on the areas of expression that, through movement alongside instrumental performance and musical conscience, give sense to the methodologies of the twentieth-century pedagogues Carl Orff (1895, Munich-1982, Munich), Zoltán Kodály (1882, Keskemet-1967, Budapest), and Emile Jacques Dalcroze (1865, Vienna-1950, Geneva). The difficulty of research in the areas of expression lies in the fact that the action (regarding the classroom as a laboratory), from the description of the action itself, might be confused with the methodological description of the teaching process. Tafuri (2004) suggests in this regard that:

One of the main endeavours of teachers is to develop educational projects that shape all of the phases: the pupils' activities, the expected learning, the evaluation. A research project, even if it has some things in common, is fundamentally different and starts from a problem that is to be solved. This paper sets out to underline the basic elements of a research project in the field of music education in comparison with those that are typical of didactic project, to demonstrate the specificity of a research methodology. (p. 27)

This article tackles one of the habitual problems facing teachers (choral conductors) who work with schools to create and promote inclusive choirs. It provides didactic criteria for choosing the repertoire, educational strategies to be used, and

notes the lack of training and the need for it in primary school teaching courses and for secondary-school music teachers.

This special edition concludes with two articles dedicated to information and communication technologies and applying them to music education and blended-learning training on primary school teaching courses: «Technology at the service of music education» and «University musical training in a blended-learning context». The former comprises an analysis of the most stable technological tools available at this time, tools that can be used by music education teachers in compulsory education in their teaching-learning processes, starting from the current situation of how early years and primary education and compulsory secondary education centres are equipped, and how with the smallest possible investment it is possible to create a distinctive technological space for music training in each centre.

It is now a daily reality that information technology must be present in education one way or another, in accordance with its rapidly evolving profile and use in society: using computers as teaching-learning tools, challenges that oblige teachers to train in different musical recordings, score editors, audio generators, audio creators, and sequencers, as well as a long list of programs and options. Among its conclusions, it identifies the need to train teachers in musical tools, proposing that good quality basic specific technological training for music education in compulsory education be offered by the university sector and the relevant authorities.

This article complements a piece of research into the teaching of music in an Education Faculty that delivers blended-learning training on the Bachelor's Degree in Primary School Teaching. The many communication possibilities of new technologies are thus pondered, such as interchange with professionals from all over the world, collaboration with music departments from other universities, research groups, and students from different cultures and so on, that offer the area the opportunity to continue training throughout the professional career of any teacher.

However, the look towards the future in this article's title must go further and ensure that all of the shortcomings identified by these studies can be resolved progressively, whether they relate to research by music professionals, initial teacher training, the challenges of research into educational practice, the voice, or any active proposal, so that they can continue to give shape to our subject in the various curricula as something that has a decisive role in influencing how our students' intellectual capacities develop and understand that information and communication technologies offer endless training possibilities to all music education groups.

As a final observation, I recommend rereading the words of Zaldívar (2008), with the aim of reconsidering whether art in itself, as a performance, is research, research from art:

Researching «from» art is definitively what artists should do as a priority and it can only be done by them: research that allows us to know what otherwise ... we

would never know. Furthermore, in the face of the criticisms that have already been made, ... researching «from art» guarantees the quality of the research in that the artist does research into what they best know how to do (and they do not have to pass through other fields of knowledge in which they are not an expert, where there are perhaps lacunae that are hard to overcome with their creative expertise). And finally, but not least interesting, ... research from art is, obviously, the form that can most directly improve the creative and interpretative practice on which it is based and, therefore, it is the form that will undoubtedly improve most effectively the highest and most demanding teaching of artistic practice. ... The challenge is how to provide this research with the required transparency of process and with the vital communicability of results, so that they can thus be justly viewed as valuable and genuinely scientific contributions. (Extract from the conference paper «Researching from art», presented by Álvaro Zaldívar García on 17 March 2008 in Santa Cruz de Tenerife).

References

- Marchesi, A. & Martín, E. (2000). *Calidad de la enseñanza en tiempos de cambio*. Madrid: Alianza Editorial.
- Morales, Á. (2008). *La educación musical en primaria durante la LOGSE en la Comunidad de Madrid: análisis y evaluación*. Unpublished doctoral dissertation. Madrid: Universidad Autónoma de Madrid.
- Oriol de Alarcón, N. (2005). La Música en las Enseñanzas de régimen general en España y su evolución en el siglo XX y comienzos del XXI. *LEEME*, Revista Electrónica de LEEME, Lis-

- ta electrónica de música en la educación, 16, noviembre. Retrieved from <http://musica.rediris.es>.
- Piaget et al. (1970). *Tendencias en la investigación en las ciencias sociales*. Madrid: Alianza.
- Tafari, J. (2004). Investigación y Didáctica en educación musical. *Revista de Psicodidáctica*, 17, 27-36.
- Zaldívar, A. (2008). *Investigar desde el arte*. Conferencia. Santa Cruz de Tenerife.

Bibliometric analysis of academic output in music education in Spain

Análisis bibliométrico de la producción científica en Educación Musical en España

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Abstract

The aim of this work is to analyse trends in music education research from Spain through bibliometric analysis of the academic output in the Web of Science database, comprising 143 articles published between 2000 and 2015. Several types of variable were analysed: a) structural variables; b) variables relating to the topic being studied; c) variables relating to the sample; and d) variables relating to the research methods and instruments used. The results show increased representation of music education in specialised journals and a broad dissemination in journals from related areas. The data indicate that both the number of articles on music education published and their impact are still limited when compared with other related areas. Measures are proposed to achieve a greater impact of the publications on the career development of the authors and to give the discipline a higher profile.

Keywords: Music Education, bibliometrics, Spain, Web of Science.

Resumen

Este trabajo tiene por objeto analizar las tendencias de la investigación realizada en España en educación musical a través de los 143 artículos publicados entre los años 2000 al 2015, a través de un análisis bibliométrico de la producción científica en la base de datos Web of Science. Se analizaron diferentes tipos de variables: a) estructurales; b) relacionadas con la temática; c) relacionadas con la muestra; y d) relacionadas con los métodos e instrumentos de investigación utilizados. Los resultados muestran un incremento en presencia en las revistas especializadas de educación musical y una amplia dispersión en revistas de áreas afines. Nuestros datos indican que tanto el número de artículos publicados en educación musical como el impacto de estos siguen siendo escasos si se compara con otras áreas afines. Se proponen medidas para conseguir un mayor impacto de las publicaciones en el desarrollo profesional de los autores y para una mayor visibilidad de la disciplina.

Descriptores: Educación Musical, bibliometría, España, Web of Science.

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1. Introduction

The dissemination of scientific findings through academic publishing is an essential activity for producing and sharing knowledge and for making researchers' work credible (Devis-Devis, Antolín, Villamón, & Valenciano, 2003; Hernández-González, Reverter-Masia, & Jové-Deltell, 2017). Bibliometrics is a corpus-based methodology that focuses on analysing information contained primarily in academic research publications, although increasingly it focusses not only on analysis of academic publications but also on analysis of researchers and academic documents (Orduña-Malea, Martín-Martín, & Delgado-López-Cózar, 2016). Analysing activity through bibliometric indicators makes it possible to study the structure and dynamics of the research process in-depth and show research trends and the main lines of action (Olmedilla *et al.*, 2013; Ortega *et al.*, 2014; Palazón, Ortega, & García-Angulo, 2015; Permanyer-Miralda, Hinrichs-Krapels, & Adam, 2016; Peset *et al.*, 2013). These studies can also supply interesting data for shaping a country's scientific policy (Cabezas-Clavijo, 2014; Sanz-Valero, Casterá, & Wanden-Berghe, 2014; Torres-Salinas & Jiménez-Contreras, 2015). Indeed, the use of bibliometric indicators in addition to other academic indicators is increasingly being used to analyse the situation of research in a country, its development over time, and its position in the international setting (Orduña-Malea *et al.*, 2016; Peralta, Frías, & Gregorio, 2015).

In recent years, there has been significant growth in academic output in educational sciences (Azer, 2015; Diem

& Wolter, 2013; Fejes & Nylander, 2014; Maz-Machado *et al.*, 2012; Moreno-Fernández & Moreno-Crespo, 2016). This large increase has led to the birth of bibliometric studies that analyse quality and quantity in research in educational sciences. Accordingly, there are three major lines of research that bring together different bibliometric studies. Specifically, they are studies that: a) analyse scientific journals that specialise in educational sciences; b) studies that analyse academic output in education from an overall perspective in doctoral theses, research projects, conferences, etc.; and c) a third major group that analyses in detail academic output in specific areas within the educational sciences.

The studies in the first group analyse scientific journals related with educational sciences, evaluating their academic output and the most relevant and up-to-date topics in each area, and comparing journals with each other to establish rankings, quality criteria and so on (e.g. Azes, 2015; Fejes & Nylander, 2014; Zurita, Merigo, & Lobos-Ossandon, 2014). For example, in the context of music education, Bansal (2014) performed a study that found a total of 44 open-access journals related to music education, the oldest of which was founded in 1984 (*Pacific Review of Ethnomusicology*) while the most recent ones were from 2011 (*Journal of Jazz Studies*, *Journal of Sonic Studies*, *Musica Docta: Rivista Digitale di Pedagogia*, and *SoundEffects*). This study also found that the country with most journals on music education is the USA, followed by Spain, and that the principal language is English. Similarly, Hancock (2015)

performed a bibliometric study in which he analysed the time of appearance of the first citation of the articles published in a specific music education journal (*Journal of Research in Music Education*). He concluded that the first citation appears approximately one year after publication, that citations of articles published in these journals appear earlier than for the other journals in this area, and that articles with several authors are more likely to be cited than ones by a single author. Finally, it is worth noting the study by Diaz and Silveira (2016) that analyses the academic output of three music journals (*Journal of Research in Music Education*, *Psychology of Music*, and *Music Perception*). They conclude that most the articles in these scientific journals on music are experimental works that analyse the topic of preferences and expression and principally analyse classical music. The most common task in them is listening, the general topic is multiculturalism, and their sample is mainly primary school pupils.

The second large group of bibliometric research works comprises pieces of research that quantitatively evaluate academic output in the field of educational sciences in general by studying works published in journals (e.g. Azes, 2015), works presented at conferences (e.g. Méndez, Amaya, & Rodríguez, 2015), doctoral theses (e.g. Max *et al.*, 2012; Moreno-Fernández & Moreno-Crespo, 2016; Vallejo, Torralbo, & Fernández-Cano, 2015) and, to a lesser extent, funding awarded for research projects (e.g. Ortega, Valdivia-Moral, Hernán-Villarejo, & Olmedilla, 2014), and so on. These works all conclude that the significant increase in academic

output in the major educational areas over the last twenty years require greater specialisation and greater specific knowledge of small areas (Fernández-Cano Torralbo & Vallejo, 2008; Moreno-Fernández & Moreno-Crespo, 2016), areas which are becoming ever more important and which it is necessary to know about and organise.

Finally, the third large group analyses academic output from specific educational specialisms (e.g. Montero-Herrera, 2016). Accordingly, in music education different authors have analysed the academic output contained in various databases (Dialnet, Scopus, and Eric). Furthermore, most of these studies analyse structural variables, in other words, the journals where the articles are published, the most important authors, the year of publication, the number of authors, and the country of publication among others. However, most of these studies do not consider variables relating to the content of the works such as methodological aspects, the type of sample, the topic of the study, the type of music, and the evaluation instruments used, or variables relating to qualitative criteria such as the number of citations received. Similarly, these studies tend to be multinational, analysing academic output relating to music education at an international level and not at the national level.

However, owing to the local specificity of education, there are ever more authors who reiterate the need for bibliometric studies on specific educational specialisms in geographic areas and/or specific countries (Espinet, Izquierdo, & García-Pujol, 2015), studies that make it possible to discover how research into

these specialities is developing in these areas. These studies can be used to establish research policies and academic diffusion and dissemination policies, and for detecting both large clusters of scientific knowledge and possible lacunae that future researchers could cover.

In this sense, bibliometric studies on music education carried out in English-speaking settings are very interesting as they reveal the strengths and weaknesses of the research in a very specific area in a particular territory (Díaz & Silveira, 2014; Hancock, 2015).

The limited number of studies of this type in Spain and the lack of studies that analyse the Web of Science databases (ISI-Thomson) make this piece of work necessary. It has the aim of analysing trends in research on music education in Spain through bibliometric analysis of the Spanish academic output in the Core Collection database of the Web of Science platform, analysing: a) structural variables; b) variables relating with the topic being studied; c) variables related with the sample being studied; and d) variables relating with the research methods and instruments used in the study.

2. Method

The study was carried out using the articles published in journals indexed in the Core Collection database of the Web of Science platform. Two researchers individually carried out the process of selecting the sample. The initial sample comprised all of the articles returned by a search of the Web of Science database using the terms «musi*» and «educat*» in

Topic, and «Spain» in Country ($n = 262$). Next, only academic articles were selected; conference papers, editorials, letters to the editor, and such like were rejected ($n = 168$). A total of 143 articles were selected from this sample. These articles were the ones that corresponded with the study's proposed objectives; 25 studies that were not related to music education were eliminated. To ensure the evaluation of quality in the review process (Wright, Brand, Dunn, & Spindler, 2007), agreement between the two researchers was measured using Cohen's kappa calculation. A score of $k = 0.96$ was obtained. Figure 1 shows the selection process for the study sample. This search was performed on 1 September 2016.

The following groups of variables were analysed in each of the selected articles: a) structural variables; b) variables relating with the topic being studied; c) variables related with the sample being studied; and d) variables relating with the research methods and instruments used in the study. Furthermore, the number of citations listed in the Web of Science database for each of the works was recorded.

In the first large group of variables, the following items were analysed for each article: 1) the title; 2) the name of the journal where it was published; 3) the year of publication; 4) the lead author's institution; 5) the gender of the lead author; 6) the number of authors; and 7) any foreign co-authors. The following categories for foreign co-authors were established: no foreign co-authors, co-authors from the USA, co-authors from European Union countries, co-authors from the UK, co-authors from South American

countries, co-authors from other countries or mixed co-authors.

In the second large group of variables, the following ones were analysed: 9) musical style analysed; 10) the task being performed; 11) broad research lines; 12) general topic; and 13) specific topic. Jazz, folk, world, pop, mixed styles, and other styles were noted in the «musical style» variable. When analysing the «tasks» variable, the following categories were proposed: listening, performance, survey, analysis, listening/viewing, others, and mixed. When analysing the «major research lines» variable, the following categories were analysed: educational resources (pedagogy, methodology, teaching approach, etc.), human resources (teachers-students), material resources (centres, music materials, instruments, etc.), and others. Next, the following categories were established for analysing the «general topic»: studies on educational centres, studies of students, studies of teachers, studies of the curriculum, studies of evaluation, studies of educational practice itself, studies of music education itself, and possible mixed studies. Finally, when analysing the «specific topic» variable, possible studies on multiculturalism, studies on gender, psychological studies, studies that analyse the movement of the body, studies that compare age groups, studies that analyse special populations, studies that analyse socio-cultural factors, and finally studies that analyse aspects related with ethnicity/race were established.

In the third large group of variables, those relating to the sample that is the subject matter were analysed. The following specific variables were analysed: 14)

gender of the sample (male, female, or mixed) and 15) type of sample (early years education pupils, primary school pupils, secondary students, university students, students at centres governed by special regulations —such as music schools, conservatories, and so on— teachers, special populations, adult amateurs, and studies with no sample).

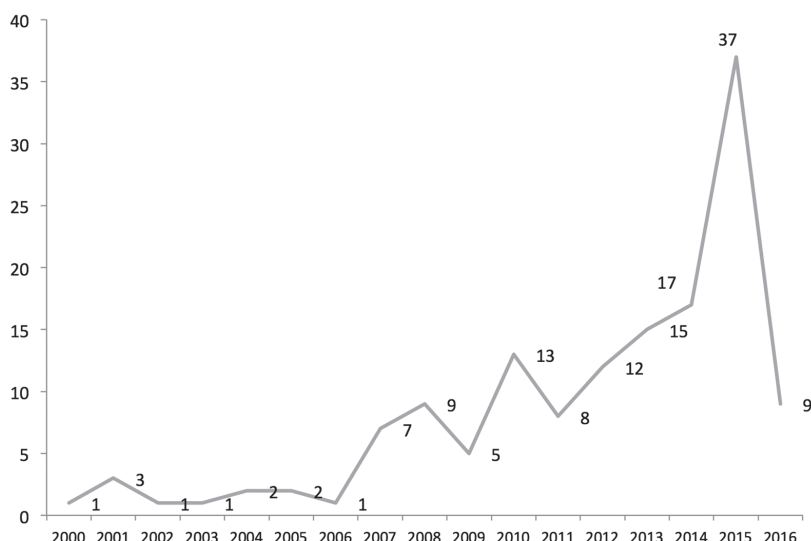
Finally, for the fourth major group, the variables relating to the research methods and instruments used in the studies were recorded. The following in particular were analysed: 16) the research methodology used (experimental, descriptive, case study, literature reviews/theoretical, others) and 17) the instruments used for collecting data (questionnaires, observation sheets, interviews, and/or instrumental/technical).

This research project is an *ex post facto* retrospective study (Montero & León, 2007). Descriptive and frequency analyses were used to identify and classify the different variables, using the SPSS 19 statistics program.

3. Results

Figure 1 shows a gradual increase in the number of publications, with notable figures apparent for 2007, 2010, and 2015. This type of article was especially prolific in 2015 with 25.9% of the publications that appeared between 2000-2016 being from this year. Of the articles published during these seventeen years, 56.7% are from between 2012 and 2015 (both inclusive). It is worth noting that the data collection ended in June 2016, and so the publications for that year are incomplete.

FIGURE 1. Frequency of publication.



Source: Own elaboration.

Table 1 shows the percentage and numbers of the structural variables established for this study.

Articles on music education were published in 88 journals in these years. Specifically, 34 (23.77%) articles were published in specialist music education journals and 109 (76.6%) in non-specialist journals. Regarding the journals where these works were published, three major groups are apparent: a) education journals; b) psychology journals; and c) medicine journals. The following journals stand out from the first large group: *Music Education Research*, *Cultura y Educación*, and *International Journal of Music Education*, who between them published a total

of 24 articles on music education. In the group of psychology journals, the following stand out: *Psicodidáctica*, *Atención primaria*, and *Infancia y aprendizaje* with a total of 11 pieces. Finally, the journals *Medical Problems of Performing Artists* and *Revista de Neurología* stand out in the medicine group with a total of four publications.

Regarding the institution of the lead author, 119 of the works analysed have a lead author from a Spanish institution, while the lead author of 24 is from a foreign institution. The University of Granada on 11.2% and the Autonomous University of Madrid on 10.5% in particular stand out over the rest.

TABLE 1. Music education articles by structural aspects studied.

Variable	Category	Number	Percentage
Gender of lead author	Male	79	55.24%
	Female	64	44.76%
Number of authors	One	32	22.38%
	Two	37	25.87%
	Three	49	34.27%
	More than three	25	17.48%
Foreign co-authors	No co-authors	108	76.06%
	USA	9	6.34%
	European Union	8	5.36%
	UK	7	4.93%
	South America	7	4.93%
	Others	3	2.11%

Source: Own elaboration.

The data in Table 1 show that for the gender of the lead author, men are the lead authors of 55.2% of the articles. Furthermore, the average number of authors for the articles is 2.83 ± 2.61 . Single authors wrote 22.38% of the articles, while 25.87% were written by two authors, and 34.27% by three authors. Finally, Table 1 shows that 76.06% of the works analysed do not

have any foreign co-authors. Almost 25% of the remaining works have co-authors from the USA (6.34%) while a further 5.36% have co-authors from the European Union, 4.93% have co-authors from the UK and the same number have co-authors from Latin American countries. The remaining 2.11% have co-authors from other countries or from more than one country.

TABLE 2. Music education articles by the topic studied.

Variable	Category	Absolute frequency	Relative frequency
Musical style	Not stated	114	91.94%
	Jazz	1	.81%
	Folk	0	.00%
	World	0	.00%
	Pop	0	.00%
	Mixed	6	4.84%
	Others	3	2.42%

Variable	Category	Absolute frequency	Relative frequency
Task performed	Listening	9	7.89%
	Performance	9	7.89%
	Survey	23	20.18%
	Analysis	69	60.53%
	Listening/Viewing	1	.88%
	Others	2	1.75%
	None	10	8.85%
General topic	Centres	1	.88%
	Students	12	10.62%
	Teachers	10	8.85%
	Curriculum	7	6.19%
	Evaluation	2	1.77%
	Educational practices	27	23.89%
	Music education	36	31.86%
	Several topics	8	7.08%
Specific topic	Multiculturalism	6	12.00%
	Gender	2	4.00%
	Psychological	5	10.00%
	Movement of the body	2	4.00%
	Age	4	8.00%
	Special population	7	14.00%
	Socio-cultural	16	32.00%
	Socio-economic	3	6.00%
	Others	5	10.00%

Source: Own elaboration.

Table 2 shows the absolute and relative percentage of the variables related to the topic that is the object of study.

The figures in Table 2 show that when analysing the variables relating to the topic being studied, most articles do not specify the musical style they are analysing (91.4%), 4.8% of the articles analyse

a mix of styles, a single article analyses jazz, and 2.42% analyse other styles. Specific articles on musical styles such as folk, world or pop were not found.

On the other hand, when analysing the «task performed» variable in pieces of research, the data in Table 2 show that in the large majority of cases an analysis

of different variables and topics was performed, with *surveys* being used to a lesser extent. A small number of studies in which *listening*, *performance*, *listening/viewing*, *other tasks*, or *no task* were performed were also noted.

Regarding «main research lines», the data from this study show three major ones: a) *educational resources* (pedagogy, methodology, didactics, etc.) with 50.44% of the articles; b) *human resources* (teachers-students) with 20.35%; and c) *material resources* (centres, musical materials, instruments, etc.) with 14.16%, leaving 15.04% of articles in the *others* section.

When analysing the «general topic», studies on *music education* comprised a

third of the publications from the years under consideration while 23.89% of the studies were on *educational practice* itself. Lower percentages of articles were found on a) education centres, b) students, c) teachers, d) evaluation, and e) mixed studies.

When analysing the «specific topic» variable, sociocultural studies are most frequent, appearing in 32% of the articles while of the specific topics proposed those relating to gender and bodily movement are least frequent with just 4% each.

Table 3 shows the relative percentages of the «sex of sample» and «type of sample» variables, belonging to the third large group of variables that are the object of study.

TABLE 3. Music education articles by sample being studied.

Variable	Category	Absolute Frequency	Relative Frequency
Sex of the sample	Male	1	.85%
	Female	2	1.71%
	Both	74	63.25%
	No gender	40	34.19%
Type of sample	No sample	36	31.30%
	Early years	2	1.74%
	Primary	10	8.70%
	Secondary	14	12.17%
	University	9	7.83%
	Special regulations	15	13.04%
	Teachers	18	15.65%
	Professionals	4	3.48%
	Special population	4	3.48%
	Adult amateurs	3	2.61%

Source: Own elaboration.

The data in Table 3 show that subjects of both genders are used in almost two out of every three studies, while one in three studies do not state gender as they do not study subjects per se. Only one piece analyses males exclusively and two analyse females only.

Furthermore, when analysing the type of sample, the data in Table 3 show that in one in three studies there is no sample strictly speaking as they are theoretical studies, practical proposals, etc. Studies

on teachers, students under special regulations, and secondary school students stand out among the empirical studies that study individuals. There are very few works where the sample that is the object of study comprises early years students, special populations, professionals, or adult amateurs.

Finally, Table 4 shows the absolute and relative percentages of the variables relating with the research methods and instruments used in the studies.

TABLE 4. Articles on music education, by methodology being studied and number of citations received.

Variable	Category	Absolute Frequency	Relative Frequency
Methodology used	Experimental	17	11.89%
	Descriptive	105	73.43%
	Case studies	5	3.50%
	Literature review	10	6.99%
	Others	6	4.20%
Number of citations received	No citations	81	56.64%
	One citation	15	10.49%
	Two citations	9	6.29%
	Three citations	9	6.29%
	More than three citations	29	20.3%
Questionnaire		39	31.97%
Interview		14	11.97%
Instrumental		18	15.38%
Observation sheet		7	5.98%

Source: Own elaboration.

The data in Table 4 show that the research methodology used was *descriptive* in most cases. Other methodologies such as experimental work, literature

reviews, case studies, and others were less common. As for the instruments used for collecting data, the articles mainly used questionnaires, followed to a lesser extent by instrumental/technical, interviews, and observation sheets.

Finally, a mean number of citations obtained by each of the articles of 2.96 ± 7.00 was recorded, although only 62 of the 143 works in the study were actually cited. Table 4 shows that if articles with no citations are disregarded, ones with one, two, or three citations are most common, although seven pieces have over 25 citations and one study stands out with 45 citations (from the Autonomous University of Barcelona published in the journal *Poetics* entitled «From exclusive to inclusive elitists and further: Twenty years of omnivorousness and cultural diversity in arts participation in the USA»). Only one of the articles with over 25 citations was published in a specific music journal, the rest being published in medicine or computing journals (*Dementia and Geriatric Cognitive Disorders*, *Journal of Neuroscience*, *Multiple Sclerosis Journal*, *Applied Intelligence*, *Medical Problems of Performing Artists*, *Transactions on Visualization and Computer Graphics*).

4. Discussion

The objective of this piece is to analyse trends in music education research from Spain through bibliometric analysis of Spanish academic output in the Core Collection database of the Web of Science platform, analysing: a) structural variables; b) variables relating with the topic being studied; c) variables relating to the

sample of the object of study; and d) variables relating to the research methods and instruments used in the study.

Firstly, it is important to note the limited number of works published on music education in Spain compared with other types of works in general or works related with education in particular (Huggett, Gurney, & Jumlet, 2016). It is not until 2010 that we start to see an increase in the number of publications in impact journals in this thematic area. The limited number of works published on music education by Spanish authors is also observed in the studies by Gustems and Calderón-Garrido (2016) based on an analysis of the SCOPUS database, Gustems and Calderón-Garrido (2014) based on DIALNET, and Galera and Pérez (2008) based on the ERIC database.

When analysing the journals in which these works are published, in this study and in the studies by Gustems and Calderón-Garrido (2014, 2016) and Galera and Pérez (2008), journals from the field of music education stand out, for example, *Music Education Research* and *International Journal of Music Education*. This latter journal is one of the journals from the first quartile, being number 11 of 113 and having an impact factor of 0.57 and an h-index of 17. However, while a significant number of non-music journals are found in this study (principally psychology and medicine, representing 56.86% of the total), in the study by Calderón-Garrido (2016), and in the study by García-Sánchez (2016), the percentage of non-music journals is much lower in the works by Gustems and Calderón-Garrido (2014) and Galera and Pérez (2008). This

difference is because in this study and the piece by Calderón-Garrido (2016), the two most significant international databases (SCOPUS and ISI) were searched, while the pieces by Gustems and Calderón-Garrido (2014) and Galera and Pérez (2008) analysed national databases such as DI-ALNET and databases with almost exclusively educational content such as ERIC.

Furthermore, when analysing the institutions of the lead authors of pieces of work on music education, the University of Granada and the Autonomous University of Madrid stand out in this study with values similar to those already recorded by Gustems and Calderón-Garrido (2016) and by García-Sánchez (2016). While there is a small percentage of articles with lead authors from universities outside Spain, no particular university stands out over the others.

Regarding the gender of the lead author, the data in this study show a small majority of men (55.24%) with figures very similar to those recorded by Moreno-Fernández and Moreno-Crespo (2016) in the analyses in their doctoral theses on education in Spain.

When analysing the mean number of authors, the data in this study give a figure of 2.83 ± 2.61 , values which are very close to those recorded by the EC3 research group from the University of Granada that places the average number of authors in the education area for 2015 from Spain at 2.4 and internationally at 3.0. These figures are slightly higher than the 1.85 recorded by Gustems and Calderón-Garrido (2016), but are similar to the 2.35 authors recorded in 2010 by

Fuentes, Luque, and López (2012) when they analysed all of the works in the Spanish education journals indexed in JCR. The ever-greater consolidation of the research teams might be one reason for which the number of authors whose names appear on the articles is increasing.

Finally, the figures from this study show a very low level of joint authorship. As Fuentes, Luque, and López (2012) also note, this low level of joint authorship is closely related to Spanish music education researchers' difficulties with the English language.

Secondly, when analysing the variables relating to the topic being studied, the data from this study show a lack of studies on specific musical styles such as folk, jazz, pop, etc., and a large number of works in which a particular variable is analysed but a low number of articles in which *listening*, *performance* or *surveys* are used. Studies whose general topic is music education and whose specific topic relates to socio-cultural aspects are increasing in number while there appears to be a fall in the interest raised a few years ago by studies on gender relating to music education (Galera & Pérez, 2008) and psychological studies (Gustems & Calderón-Garrido, 2014, 2016). These figures differ significantly from the ones observed by Diaz and Silveria (2014) who when analysing works from three high-impact English-language music-education journals observed a large number of works in which specific musical styles were studied; *listening*, *performance*, and *survey* were found, and multicultural aspects were studied as well as gender and psychological aspects. These differences

might be because of the time period analysed (1990-2009 instead of 1990-2016) and the territoriality, concerns, problems, and needs, and the fact that the Spanish educational system is different from those of English-speaking countries in general and the USA in particular.

On the other hand, when analysing the variables relating to the sample being studied, in this work it can be seen that most studies analyse both genders and that only two out of three studies analyse individuals, in particular studies on teachers, students under special regulations, and secondary school students. These data are quite different from those recorded by Díaz and Silveria (2014), where studies on university students dominate. Again, the explanation might be because of both the time period of the study and the territoriality typical of studies on education.

When analysing the variables relating to the research methods and instruments used, the data from this study, show that virtually the only methodology used in the field of music education is descriptive, mainly using questionnaires. Again, these data differ from those obtained by Díaz and Silveria (2014) who analysed English-language publications and found that the main methodology was experimental and that there was a high number of articles with theory-based methodology, something that was barely found in the articles that comprise the sample for the current study.

Finally, when analysing the number of citations, the articles studied obtained an average of 2.96 ± 7.00 , while only 62 of the

143 works studied were cited at all. These figures are slightly higher than those recorded by Gustems & Calderón-Garrido (2016) who obtained a mean of 2.05 citations per article. Although authors increasingly choose journals with higher impact indexed in the most academically prestigious bibliographies at an international level, the number of citations they obtain is very low.

The low JCR impact factors of the specific music journals might suggest that the journals chosen by the Spanish authors are not very impactful. However, there are many journals in the first quartile in SJR in the area of music: *Psychology of Music*, *Journal of Research in Music Education*, *Research Studies in Music Education*, *Music Education Research*, *Musicae Scientiae*, *International Journal of Music Education*, *British Journal of Music Education*. Nonetheless, if the area of education is analysed, fewer of the journals being examined are in this quartile, even though the area of education has 1066 journals indexed in JCR and SJR compared with 113 for music. None of the journals analysed that are classified as being about medicine or psychology are in the first quartile, although some of them are in the second. Authors should be made aware that, while their publications receive more citations if they are in journals from related areas (principally music), the impact of their publications on their professional development is better if they publish in less specific journals with a low impact factor (psychology and medicine).

In summary, the number of articles published and their impact continues to be limited when compared with other

related areas. It is necessary to boost research in this field among teachers from universities and conservatories. It is logical that for these professionals, instruments and teaching are the two most important activities in their discipline, but it is important to emphasise the more scientific perspective of the discipline based on research and innovation. Making an area visible in the scientific literature helps with its visibility and recognition by the academic community as a whole. In recent years, a growing trend towards publishing articles can be seen that should be consolidated.

References

- Azer, S. A. (2015). The top-cited articles in medical education: a bibliometric analysis. *Academic Medicine*, 90 (8), 1147-1161.
- Bansal, N. (2014). Directory of Open Access Journals, Music: A Bibliometric Study. *International Journal of Scientific and Research Publications*, 4 (1), 1-9.
- Cabezas-Clavijo, Á. (2014). *Estudio bibliométrico de la producción, actividad y colaboración científicas en grupos de investigación: el caso de la Universidad de Murcia*. Unpublished doctoral dissertation. Universidad de Granada.
- Dehdarirad, T., Villarroja, A., & Barrios, M. (2015). Research on women in science and higher education: a bibliometric analysis. *Scientometrics*, 103 (3), 795-812.
- Devis-Devis, J., Valenciano Valcárcel, J., Antolín Jimeno, L., Villamón Herrera, M., & Moreno Doña, A. (2003). Las revistas científico-técnicas españolas de las ciencias de la actividad física y el deporte: inventario y análisis de la calidad de contenido y difusión. *Revista Española de Documentación Científica*, 26 (2), 177-190.
- Díaz, F. M. & Silveira, J. M. (2014). Music and affective phenomena a 20-year content and bibliometric analysis of research in three eminent journals. *Journal of Research in Music Education*, 62 (1), 66-77.
- Diem, A. & Wolter, S. C. (2013). The use of bibliometrics to measure research performance in education sciences. *Research in Higher Education*, 54 (1), 86-114.
- Espinete, M., Izquierdo, M., & García-Pujol, C. (2015). Can a Spanish science education journal become international? The case of *Enseñanza de las Ciencias*. *Cultural Studies of Science Education*, 10 (4), 1017-1031.
- Fejes, A. & Nylander, E. (2014). The Anglophone International: A Bibliometric Analysis of Three Adult Education Journals, 2005-2012. *Adult Education Quarterly*, 64, 222-239.
- Fernández-Cano, A., Torralbo, M., & Vallejo, M. (2008). Revisión y prospectiva de la producción española en tesis doctorales de pedagogía (1976-2006). *Revista de Investigación Educativa*, 26 (1), 191-207.
- Fuentes, J. L., Luque, D., & López Gómez, E. (2012). Análisis bibliométrico de las revistas españolas de educación incluidas en el Journal Citation Report: producción científica y elementos controvertidos. *Teoría de la Educación*, 24 (1), 183-217.
- Galera-Núñez, M. & Ceballos, J. M. P. (2008). La investigación en Educación Musical en la base de datos ERIC. *Revista electrónica de LEEME*, 22, 1-14.
- García Sánchez, M. I. (2016). *La Musicología en las universidades españolas. Investigación, publicación y visibilidad científica*.
- Gustems, J. & Calderón, D. (2014). Estudio bibliométrico de los artículos de educación musical incluidos en DIALNET 2003-2013. *Revista electrónica de LEEME*, 33 (2), 27-39.
- Gustems, J. & Calderón, D. (2016). Scopus: una herramienta para el análisis de las publicaciones.

- nes en educación musical en la década 2006-2015. *Sonograma Magazine*, 31.
- Hancock, C. B. (2015). Stratification of Time to First Citation for Articles Published in the Journal of Research in Music Education A Bibliometric Analysis. *Journal of Research in Music Education*, 63 (2), 238-256.
- Hernández-González, V., Reverter-Masia, J., & Jové-Deltell, C. (2017). Producción científica de los profesores del área de Educación Física y deportiva en Cataluña (quinquenio 2005-2009 versus 2010-2014). *SPORT TK-Revista EuroAmericana de Ciencias del Deporte*, 6 (1), 17-24.
- Huggett, S., Gurney, T., & Jumelet, T. (2016). *Indicadores Bibliométricos de la Actividad Científica Española 2005-2014*. Madrid: FE-CYT. Fundación Española para la Ciencia y la Tecnología.
- Martí-Parreño, J., Méndez-Ibáñez, E., & Alonso-Arroyo, A. (2016). The use of gamification in education: a bibliometric and text mining analysis. *Journal of Computer Assisted Learning*, 32 (6), 663-676.
- Martín-Martín, A., Orduña-Malea, E., Ayllón, J. M., & López-Cózar, E. D. (2016). *The counting house: measuring those who count. Presence of Bibliometrics, Scientometrics, Informetrics, Webometrics and Altmetrics in the Google Scholar Citations, ResearcherID, ResearchGate, Mendeley & Twitter*. Retrieved from: preprint arXiv:1602.02412
- Maz-Machado, A., Jiménez-Fanjul, N., Gutiérrez-Arenas, P., Adrián, C., Vallejo, M., & Adamuz-Povedano, N. (2012). Estudio bibliométrico de la investigación educativa en las universidades de Andalucía en el SSCI (2002-2010). *Revista Iberoamericana de Psicología y Salud*, Julio, 125-136.
- Méndez, S., Amaya, A. & Rodríguez, M. (2015). Análisis Bibliométrico De Clabes 2011-2014. En Congresos CLABES. *Conferencia Latinoamericana sobre Abandono en la Educación Superior 2015*. Universidad Tecnológica de Panamá.
- Montero, I. & León, O. G. (2007). A guide for naming research studies in Psychology. *International Journal of Clinical and Health Psychology*, 7 (3), 847-862.
- Montero-Herrera, B. (2016). Effects of music on physical-motor performance: a systematic review of scientific literature. *ÁGORA para la Educación Física y el Deporte*, 18 (3), 305-322.
- Moreno-Fernández, O. & Moreno-Crespo, P. (2016). Análisis bibliométrico de las tesis doctorales españolas indexadas con el descriptor «Sector de la educación» (1976/2014). *Revista Española de Documentación Científica*, 39 (3), 146.
- Olmedilla, A., Ortega, E., González, J., & Hernán-Villarejo, D. (2013). Análisis de los proyectos de investigación de financiación pública en Psicología del Deporte. *Anales de Psicología*, 29 (3), 714-723.
- Ortega, E., Valdivia-Moral, P., Hernán-Villarejo, D., & Olmedilla, A. (2014). Análisis de los proyectos de investigación concedidos por el Consejo Superior de Deportes (2006-2012), desde una perspectiva de género. *Revista de Psicología del Deporte*, 23 (1), 95-100.
- Palazón, M. A., Ortega, E., & García-Angulo, A. (2015). Análisis bibliométrico de la producción científica en el fútbol sala. *SPORT TK-Revista EuroAmericana de Ciencias del Deporte*, 4 (2), 19-24.
- Peralta, M. J., Frías, M., & Gregorio, O. (2015). Criterios, clasificaciones y tendencias de los indicadores bibliométricos en la evaluación de la ciencia. *Revista cubana de información en ciencias de la salud*, 26 (3), 290-309.
- Permanyer-Miralda, G., Hinrichs-Krapels, S., & Adam, P. (2016). El impacto social de la investigación en cardiología: más allá de la gestión. *Revista Española de Cardiología*, 69 (7), 639-643.

- Peset Mancebo, F., Ferrer Sapena, A., Villamón Herrera, M., González, L. M., Toca Herrera, J. L., & Aleixandre Benavent, R. (2013). Scientific literature analysis of Judo in Web of Science®. *Archives Of Budo*, 9 (2), 81-91.
- Sanz-Valero, J., Casterá, V. T., & Wanden-Berghe, C. (2014). Estudio bibliométrico de la producción científica publicada por la Revista Panamericana de Salud Pública/Pan American Journal of Public Health en el periodo de 1997 a 2012. *Revista Panamericana de Salud Pública*, 35 (2), 81-88.
- Torres-Salinas, D. & Jiménez-Contreras, E. (2015). El efecto Cajal: análisis bibliométrico del Programa Ramón y Cajal en la Universidad de Granada. *Revista Española de Documentación Científica*, 38 (1), 1-9.
- Vallejo, M., Torralbo, M., & Fernández-Cano, A. (2015). Gender Bias in Higher Education Spanish Doctoral Dissertations in Mathematics Education. *Journal of Hispanic Higher Education*, 15, 205-220.
- Yarbrough, C. (1996). The future of scholarly inquiry in music education: 1996 Senior Researcher Award acceptance address. *Journal of Research in Music Education*, 44, 190-203.
- Zurita, G., Merigó, J. M., & Lobos-Ossandón, V. (2016). A Bibliometric Analysis of Journals in Educational Research. En *Proceedings of the World Congress on Engineering 2016 (Vol. 1)* (pp. 403-408). Londres: International Association of Engineers.
- Wright, R. W., Brand, R. A., Dunn, W., & Spindler, K. P. (2007). How to write a systematic review. *Clinical orthopaedics and related research*, 455, 23-29.

Musical training for Primary Education graduates in the context of Madrid

Formación musical de los graduados de Maestro en Educación Primaria en el contexto madrileño

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Abstract:

As a result of the appearance in 2007 of the regulations governing the degree in Primary Teaching (PT), it is now possible that generalist teachers might teach music without having any specific qualification in it. This research is intended to ascertain the extent to which students on the Primary Teaching degree feel that they are enabled to deliver this subject, using an *ad hoc* questionnaire for this purpose, which uses a reference point the music education curriculum content. A total of 301 students from three public universities in the Community of Madrid were surveyed, after they took the music module in the 2013-2014 academic year. The results obtained support the data from other similar international studies (Hallam *et al.*, 2009; Watt, 2000), which reveal a marked shortfall in the music training received by future primary school teachers.

Keywords: Music education, primary education, teacher training, generalist teachers, teacher competence.

Resumen:

A raíz de la aparición en 2007 de la normativa reguladora del Grado en Educación Primaria (EP), cabe la posibilidad de que los maestros generalistas puedan ejercer la docencia de la asignatura de Música sin ninguna cualificación específica para ello. La siguiente investigación pretendió averiguar hasta qué punto los alumnos del Grado de Maestro en Educación Primaria se sentían facultados para impartir la materia musical, diseñando, para ello, un cuestionario *ad hoc*, que tomaba como referencia los contenidos del *currículum* relacionados con la Educación Musical. Así, se encuestaron a 301 estudiantes de tres Universidades públicas de la Comunidad de Madrid, tras cursar la asignatura dedicada a la Música, en el curso académico 2013-2014. Los resultados obtenidos constatan los datos aportados por otros estudios de similar naturaleza de ámbito internacional (Hallam *et al.*, 2009; Watt, 2000), subrayando un marcado déficit en la formación musical recibida por los futuros maestros de Primaria.

Descriptores: Educación Musical, Educación Primaria, formación del profesorado, maestro generalista, competencia docente.

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1. Introduction

From the 1990s onwards, music was taught at primary school level in Spain by a specialist teacher whose training, as well as covering «the basics» of «performing the teaching activity» also included «specific training» comprising seven modules relating to this subject, as well as 32 credits of specific teaching practices (Royal Decree 1440/1991, pp. 33.012-33.014). Since the new Degree in Primary School Teaching (Order ECI/3857/2007) appeared in 2007, and following the disappearance of the teaching specialisms (Royal Decree 1393/2007), graduates have been offered the possibility of taking charge of the music subject if, apart from the degree qualification, they have one of the following qualifications: a degree in music, a postgraduate qualification and/or professional qualification in music, a licenciante degree in musicology or in music history and sciences, or the old musical education diploma (Royal Decree 1594/2011, p. 116.657).

The regulations also allow for two more cases. Firstly, for the discipline to be delivered by a graduate who has majored in music, taking a specific group of modules, with a teaching load of between «30 and 60 European credits» (Order ECI/3857/2007, p. 53.748). Consequently, Spanish universities have favoured the option of majors of around 30 credits. Secondly, and with regards to the core of this research, «the primary school teaching workforce» is taken to be trained in this speciality if they show that «for three years ... and in over 30 per cent of their timetable» (Royal Decree 1594/2011, p. 116.654) they have taught the subject.

This transformation in the configuration of qualifications means that a generalist primary school teacher, who will generally only have taken a single module of music in their four years of training, owing to the 100 credits that the regulations contemplate for all of the subject areas in the «teaching and the discipline» module which it is part of (Order ECI/3857/2007, p. 53.749), could be responsible for teaching this subject as soon as they start at the school.

Regarding teaching training in other nearby European countries, the situation is very similar with no training for specialists in music education. So, for example, in France between 32 and 50 hours, depending on the university, are dedicated to studying music within the optional modules. This is also the case in Italy, where future education graduates have the choice of taking two single modules dedicated to musical instruction (Murua-mendaraz, Ordoñana, & Goldaracena, 2010).

2. Musical training for generalist teachers

The issue of whether music teaching should be left in the hands of teachers who do not specialise in it or be entrusted to a specialist has inspired a long and fertile debate among international researchers (Cevik, 2011; Biasutti, 2010; De Vries, 2013; Jeanneret & Degraffenreid, 2012). For example, Hennessy (2006) suggested that the schools where more importance is given to music as a subject, thanks to both the physical resources available and the teachers' training, would obtain better

results in the learning of the subject. For their part, Yim, Abd-El-Fattah, and Lee (2007) showed that musical skills and the confidence in the skills of the teaching staff increased the more they did it in practice, demystifying the idea that musical learning could not take place if the individual lacked a specific talent for it (Howe, Davidson, & Sloboda, 1998), although their musical self-concept has an influence (Lamont, 2011).

In relation to this problem, Watt (2000) asked whether the generalist teacher was trained to approach music teaching and, in the case of those who deliver this subject, how much security they showed in their performance. The research showed that while primary school teachers delivered other subjects with confidence, they expressed uncertainty about music, something that increased in teaching with children aged between 3 and 6. Consequently, she underlined the fact that while generalist teachers could teach music, their training was insufficient, and she also underlined the need to share the space for teaching with a specialist music teacher.

In a similar piece of work, Hallam *et al.* (2009) set out, among other objectives, to establish whether university students showed greater or lesser confidence teaching music as a subject as they do in other disciplines, find out their opinion about whether it should be in the hands of specialists, and discover whether the knowledge acquired was useful for their future teaching practice, after completion of the Post Graduate Certificate in Education (PGCE). This study involved 341 students from four higher education centres, who

attended sessions of 4 and 4.5 hours per week dedicated to musical learning. The results obtained, alongside those provided by Watt (2000), reveal that, despite the good training received by the students, it was insufficient for teaching music at school as the members of the sample did not display sufficient confidence to teach the subject.

Seddon and Basutti (2008) formulated the hypothesis that through musical practice, primary education students would be able to rate their own musicality, managing, at the same time, to improve their respective artistic talents and skills, both from the perspective of execution and from teaching. To perform their study, they designed six tasks using fragments of music taken from blues standards in MIDI format. Their results showed that:

- The participants could develop autonomous learning as the research was carried out in an elearning context. The presence of the teacher in the sessions was not necessary.

- The participants could expand their musical skills without constraints, given that they did not feel that their skills were being evaluated.

In essence, the researchers underline the need to encourage generalist teachers' learning by using digital educational tools, and at the same time they justified their arguments about not giving music a special status except in an interdisciplinary context.

For their part, Adessi and Carugati (2010) emphasised that social and cultural preconceptions affected the university

students' opinions about the teaching-learning process for music, although their appraisal might change with appropriate training. Starting from this premise and taking social representation (SR) theory as a model, they studied the data they obtained using an open questionnaire which was answered by 855 students. They analysed the correlations between the «music, musicality, musical child, music teacher, and music education» concepts (313). This instrument was administered before and after the subjects took two specific modules in the 2003 to 2006 academic years. The results obtained in this study showed an appreciable change in the subjects' opinions of their social, cultural, and professional context, confirming the influence of the subject areas studied in these ratings, especially with regards to the musicality of the child.

Creativity in artistic education has also been analysed as an element to consider in the training of primary school teachers. For example, Crow (2008) studied the comprehension of this skill associated with musical development and the teaching skill of a group of higher education students, before and after delivering the subject to adolescents aged between 11 and 18. The data obtained showed that the subjects changed their opinions about creativity as their teaching experience increased, showing differences between those who thought that it could be acquired through training and others who understood it as a skill that is inherent to the individual.

Georgii-Hemming and Westvall (2010) analysed whether teacher training in

music is sufficient to teach the discipline with confidence in schools. In this regard, they stated that the teachers and pupils alike seemed not to see a purpose in learning music, as its content was not clearly defined in the curriculum. At the same time, they underlined certain imbalances between the music teaching knowledge acquired while studying at university, and its real application in their subsequent teaching practice. Consequently, the research showed that the theoretical and methodological training in the subject, even in higher education, did not guarantee that new teachers acquired sufficient confidence in their knowledge to teach music in the classroom. Meanwhile, they emphasised the deep need for a major theoretical debate in education as well, from the applicable governmental areas.

In the Spanish setting, critical voices have also appeared asking what the benefits and drawbacks are of eliminating the figure of the specialist teacher. In fact, in a piece analysing the academic curriculum of the old music education diplomas at the Public University of Navarre, Ortiz (2004) completed his study by asking directly why there was no specialist teacher if, according to the legal provisions, the field of artistic education was still being kept. He also asked whether the disappearance of this figure could underpin the broad-based nature of all primary education courses.

On similar lines, Serrano, Lera, and Contreras (2007) have argued that the transformation has been performed as a result of the evaluation of the «professional profiles» of active teachers, the «profes-

sional skills», and the «European qualifications» (551). Furthermore, they state that some subjects, such as music, seem to be more adaptable to methodological and legislative changes, while the appearance of the new majors has been viewed critically, since they are at the mercy both of whether the respective universities provide them and whether the students choose them. In parallel with these ideas, discrepancies have also arisen about the suitability of the new university degrees (Pozo & Bretones, 2015). Furthermore, there is a clear contradiction in the sole presence of generalist teachers with their teaching practice covering a multitude of disciplines that they could only tackle after completing master's degrees in professional specialisation.

Roche (1994) stated that the most urgent problems with music education in Spain before the approval of the General Regulation of the Education System Law (LOGSE), 1990 included:

- The almost complete absence of music education in compulsory education, in which training and appointment of specialised teaching staff and the preparation of curricula, key to accomplishing this, were never agreed.
- The lack of institutions to channel the interest in music of enthusiastic members of the public.
- The disconnection between general education and specialised music teaching.
- The lack of higher courses dedicated to training specialised staff to teach music in the field of compulsory education.

These matters caused the subject to be relegated to the field of leisure, becoming something that formed part of the sphere of the sociocultural entertainment provided by educational centres. Furthermore, the generalist teacher who took charge of delivering the subject until the design of the diploma in music education in 1995, could not be regarded as a teacher who is competent in the discipline, if she only had a theoretical training: the development of certain highly specific methodological skills and competencies was also necessary.

For his part, Aróstegui (2006) is more emphatic in his theoretical study about the belief that music could be covered appropriately by the generalist teacher, even though to do so it was necessary to follow the directives on university education emanating from the European Higher Education Area (EHEA). According to this author, the whitepaper for the new degree in education supported this option, as it stated that the specialist should also undertake all the primary school teaching while at the same time the majors on offer disconnected the student who took them from the real situation of the labour market. In this way, it is suggested that artistic education teaching staff should, among other aims, focus their efforts on transmitting the aesthetic knowledge derived from, in this case, music, and so in this way the curriculum could be left in the hands of the specialist or of the generalist.

More specifically, Casals and Viladot (2010) studied the professional and teaching characteristics of the generalist

teacher in contrast with the music specialist, through the development of creative activities, taking as a reference point both their prior knowledge and their professional experience. To do this, they designed a pilot study in which they analysed the behaviour and the educational initiatives of 24 subjects, including specialist and generalist teachers and their respective pupils. The conclusions of this study demonstrate the importance of teaching experience in the educational specialisation, indicating that this experience is not a vital requirement in teacher training. On the contrary, they emphasised the need to work on and cover in greater depth, from the lowest levels of teaching, on performing creative activities.

Consequently, it seems to be clear that the studies consulted agree on the limited musical training of generalist teachers for their future work teaching music in primary school classrooms. Even so, they show that this problem can be resolved through a greater knowledge of the subject, and so it is necessary to increase the amount of time dedicated to theory and practice in this subject in the curriculum of the degree in primary education.

3. Objectives

The aim of this research centres on the following objectives: firstly, to establish the level of assimilation of musical content attained by primary school teaching students in three public universities in the Community of Madrid; secondly, to examine what music training they have

received depending on the university where they study; and, finally, to establish what value the knowledge of music the students acquired from these courses has for them in their future teaching practice.

4. Method

4.1. Sample and Participants

The participants in this research were 301 students who had taken the music module while studying for a degree in primary school teaching at one of three of the public universities with the largest number of students enrolled in the Community of Madrid. Of these students, 207 were women (68.8%) and 94 men (31.2%), with ages of between 19 and 38 (*Mean* = 21.41). Furthermore, 34 had previous musical studies (11.3%) while 267 said that their knowledge was limited to that acquired during compulsory education (88.7%).

With regards to gender distribution, it should be noted that in Spain most primary education teachers are women (Sebastián, 2006), and so the sample obtained in this study is consistent with the proportion of teachers by gender in Spain (García-Gil & Ríos-Vallejo, 2013).

Consequently, the decision was taken to use stratified random sampling with simple allocation, regarding each of the participating centres as a stratum in which the students who had studied the music module in different morning and afternoon groups were surveyed. To determine the sample size, it was

established that the total number of students enrolled on this subject in the participating centres was 755. Therefore, taking a confidence level of 97%, a sampling error of 5%, and assuming a variance

value of 50%, the minimum size of the sample should be 290 students. However, the final sample was slightly larger than the minimum, comprising 301 students (see Table 1).

TABLE 1. Sample size distributed by centres.

Centres	N (total) students	Final sample
Complutense University (1)	332	101
Universidad Autónoma (2)	288	100
Universidad de Alcalá (3)	135	100
TOTAL	755	301

Source: Own elaboration.

Before continuing, it should be noted that the curricula for the degree in primary education in each of the participating centres contain a compulsory module dedicated to learning music content. At the Complutense University it is worth 6 ECTS credits and focuses on learning of the following aspects: (a) parameters of sound, (b) elements of music, (c) musical listening, (d) improvisation, creation, and interpretation, (e) singing, and (f) rhythm and movement. At the Universidad Autónoma it is worth 9 ECTS credits and its content is structured around: (a) primary education curriculum, (b) developing educational proposals, (c) musical language, (d) history of music and Spanish folk music, (e) vocal education and movement, and (f) programming and teaching units. Finally, at the Universidad de Alcalá, it is worth 6 ECTS credits and covers: (a) elemental metric-rhythmic structures, (b) intervals,

scales, modes, tonalities, and chords, (c) computer resources for basic music reading and writing, (d) acoustics, and (e) musical instruments in primary education. As can be seen, these modules have in common the teaching of content on musical language, physical expression, musical performance, and the application of music teaching resources. These are the basic foundations on which the teaching of the music education curriculum in the primary school classroom is based and are the basis for drawing up the items on the questionnaire. Similarly, to teach all of this content, generalist teachers must not only acquire exclusively musical skills but also educational ones in order to know how to use the resources, plan activities, and relate music to the other subjects in the curriculum in a way that is appropriate to the characteristics of this stage. To do this, they must plan their activities for two

45-minute sessions per week for each of the 6 years that make up this stage.

4.2. Instrument

A questionnaire was used to collect the information, as in other studies intended to establish the musical training of primary school teachers (Russell-Bowie, 2009; Yim *et al.*, 2007).

This questionnaire comprises 14 items that measure students' degree of assimilation of the music content they will have to teach the primary school children in accordance with the established curriculum (LOE, 2006; LOMCE, 2013). A final question is also included in which the students had to evaluate, on a scale of 0 to 10, their perception of the level of musical knowledge they have attained.

The participants had to respond to the statements made in accordance with a 5-point Likert scale, in which 1 meant not at all and 5 meant a lot. Therefore, the items that compose the questionnaire were drawn up in accordance with the content contained in the music education curriculum in primary education, which is organised in three large content blocks:

- Listening: listening to different types of music, analysis of their constituent elements, expressing ideas, emotions, and feelings through music and musical language, or through other artistic expressions. Teachers work with the pupils on developing abilities in sensory, auditory, and physical recognition that facilitate their understanding of the different artistic expressions.

- Musical performance: musical works, creation and improvisation of different musical productions. The aim here is to develop individual and collective creativity in pupils and ensure they experience aesthetic pleasure, playing a leading role in creating their works. In this process, as well as musical instruments, information and communication technologies are used. Finally, cooperative work is encouraged to value, understand, reflect, and favour creativity.

- Music, movement, and dance: rhythmic movement, choreography, physical expression with musical elements, dramatic play, expressing feelings and emotions with the body, symbolic play, etc.

Next, and to be able to determine the psychometric properties of the instrument, the content validity of the questionnaire was measured. Six specialists from the field of musical education participated in this process, making a series of appraisals and suggestions that were included in the final preparation of the instrument. The construct validity was also calculated using factor analysis, which had previously been submitted to the Bartlett and Kaiser-Meyer-Olkin tests to ascertain whether the results obtained matched a factor analysis model, returning a value of .923 (Bartlett's sphericity test $\chi^2 = 2321.079$, $p < .001$), a figure considerably greater than .6, which indicated that performing this type of analysis is valid (Estévez & Pérez, 2007). Therefore, a factor analysis was performed using the principal component extraction method with varimax rotation, by which 3 factors

were extracted explaining 65.62% of the total variance. The first factor, named *Curriculum-Teaching*, grouped items 2, 6, 7, 8, 9, 10, 11, 12, 13, and 14; factor 2,

Vocal and physical expression, comprised items 4 and 5; while items 3 and 1 comprised the *Perception and expression of musical language* factor (see Table 2).

TABLE 2. Results of the factor analysis, using the varimax rotation method.

Items	Component		
	1	2	3
10. Using teaching resources and musical materials appropriate to the educational stage	.829		
14. Using musical resources that can function as teaching strategies in non-musical lessons	.766		
11. Developing basic skills through music	.718		
6. Dramatization with music	.679		
13. Relating music to other curriculum areas, interdisciplinarity	.666		
9. Performing with school musical instruments	.651		
2. Expressing what is perceived through expression through plastic arts, narrative, feelings	.639		
7. Hearing, musical listening	.627		
8. Musical improvisation and creation	.623		
12. Planning group musical activities as a way of encouraging cooperative work, individual work, peer interaction, and independent learning	.606		
4. Singing		.807	
5. Movement and dance		.782	
3. Musical language			.855
1. Perception and expression of basic elements of music			.717

Source: Own elaboration.

To measure the internal consistency of the questionnaire, Cronbach's α coefficient was calculated, giving a value of .922 indicating a high degree of inter-

nal consistency, given that, according to Kerlinger and Lee (2008), the instruments used in educational research are located between .65 and .85.

4.3. Procedure

The students answered the questionnaires in face-to-face surveys, as this was shown to be the most effective data collection strategy (Cea, 2012). This process was carried out during the 2013-2014 academic year, after the students had completed their music modules. So, the students from the Universidad de Alcalá answered the questionnaire in January 2014, while those from the Complutense University and the Universidad Autónoma answered it in May of that year.

5. Results

The information from this research was analysed using the IBM SPSS Statistics 20 program, and the results are presented grouped according to the objectives established in this study.

Initially, an analysis of the descriptive statistics was performed of the factors in which the items from the questionnaire were grouped, the results of which are shown in Table 3.

TABLE 3. Descriptive statistics of the factors analysed.

FACTOR	N	Minimum	Maximum	Mean	Standard deviation
Curriculum-teaching	301	1.00	5.00	3.12	.823
Vocal and physical expression	301	1.00	5.00	2.91	.958
Perception and expression of musical language	301	1.00	5.00	3.14	.919

Note: 1 = not at all; 2 = not really; 3 = a bit; 4 = somewhat; 5 = very much

Source: Own elaboration.

The results shown in Table 2 indicate that the students have assimilated the content relating to the *Curriculum-Teaching* factor ($M = 3.12$), *Vocal and physical expression* ($M = 2.91$), and *Perception and*

expression of musical language ($M = 3.14$) a bit.

Next, a variance analysis of the factors studied by university variable was performed (see Table 4).

TABLE 4. Variance analysis of the factors by university variable.

Factor	University	Mean	Standard deviation	F	P	Eta ²	Post hoc comparisons
Curriculum-teaching	U.1 (1)	3.56	.73	30.707	.000***	.171	1,2>3
	U.2 (2)	3.05	.63				
	U.3 (3)	2.74	.87				
Vocal and physical expression	U.1	3.52	.87	49.408	.000***	.249	1,2>3
	U.2	2.87	.66				
	U.3	2.36	.94				
Perception and expression of musical language	U.1	3.41	.73	44.045	.000***	.228	2,1>3
	U.2	3.49	.87				
	U.3	2.53	.83				

*** $p < .001$.

Source: Own elaboration.

As can be seen in Table 4, the results were statistically significant for all of the factors analysed. Consequently, in the *Curriculum-teaching* factor, the students from universities 1 and 2 rate this aspect higher than those from university 3. With regards to the degree of assimilation of the *Vocal and physical expression* factor, the students from universities 1 and 2 obtain a higher score than those from num-

ber 3. In the *Perception and expression of musical language* factor, the participants from universities 2 and 1 report a greater assimilation of the content of this factor than those from university 3.

In the last item on the questionnaire, the students were asked to give an overall rating, on a scale of 0 to 10, of the musical knowledge they had learnt once they had finished the module (see Table 5).

TABLE 5. Descriptive statistics of the overall rating for music training.

	Minimum	Maximum	Mean	Standard deviation
Overall rating of music training	1	10	6.72	1.77

Source: Own elaboration.

Table 5 shows that the students gave an average rating of 6.72 to the musical

knowledge they had acquired during their university training.

Next, a variance analysis was performed in accordance with the university variable (see Table 6).

TABLE 6. Variance analysis of the overall rating for music training by university variable.

Factor	University	Mean	Standard deviation	F	P	Eta ²	Post hoc comparisons
Overall evaluation of their musical training	U.1(1)	7.79	1.13	39.400	.000***	.209	1,2>3
	U.2(2)	6.52	1.24				
	U.3(3)	5.85	2.16				

*** $p < .001$.

Source: Own elaboration.

The results shown in Table 6 were statistically significant, showing that the students from universities 1 and 2 rate the musical knowledge acquired through their training more highly than the students from university 3 did.

Finally, a Pearson correlation analysis among the ratings given by the students to the different factors of the questionnaire was performed, the results of which are shown in Table 7.

TABLE 7. Pearson correlation analysis.

	Curriculum-teaching	Vocal and physical expression
Vocal and physical expression	.748***	
Perception and expression of musical language	.518***	.534***

*** $p < .001$.

Source: Own elaboration.

According to Salkind (1999), a strong correlation can be seen (if r is between .6 and .8) between the *Curriculum-teaching*

and *Vocal and physical expression* factors ($r = .748$, $p = .000$). On the other hand, a moderate correlation (if r is between

.4 and .6) can be observed between the *Curriculum-Teaching* and *Perception and expression of musical language* factors ($r = .518, p = .000$), as well as between *Vocal and physical expression* and *Perception and expression of musical language* ($r = .534, p = .000$).

6. Conclusions

This research has focused on establishing what musical training is received by generalist teachers during their studies in three public universities in the Community of Madrid.

Consequently, the first objective specifically attempted to establish the degree of assimilation of the music content that, the future teachers must subsequently teach in the primary school classroom. The results obtained indicated that the students had learnt *a bit* of the content relating to the *Curriculum-teaching*, *Vocal and physical expression*, and *Perception and expression of musical language* emergent factors. This situation is clearly insufficient for tackling the teaching of the subject within certain margins of effectiveness, and furthermore, can create a lack of confidence in the performance of the future teachers, with them even avoiding teaching this subject at school (Holden & Button 2006; Rohwer & Svec, 2014; Watt, 2000). Specifically, the students give a lower score to the factor that includes singing and dance, something which shows that the pupils encounter greater difficulties when carrying out classroom activities for working on vocal and physical expression, even when the curriculum provides for covering these

content areas (Cámara, 2005; Royal Decree 126/2014). However, these same graduates state that with regards to the perception and expression of musical language and the aspects referring to the curriculum and their classroom implementation, they acquired slightly more. This piece of data also shows that despite the short training period available, their level of musical competence increased in some cases.

Regarding the differences in training according to the universities where the participants in this research studied, the second proposed objective, it is necessary to note that universities 1 and 2 show the best results in all the factors analysed, namely *Curriculum-teaching*, *Vocal and physical expression*, and *Perception and expression of musical language*. These include: developing content relating to dramatization, improvisation, and musical composition; performance with school instruments; movement and dance; musical perception and expression; cooperative work through music; and singing, among other types of content that comprise the basic foundations on which the area of music in primary school is based (Conway, Eros, Pellegrino, & West 2010; Hennessy, 2009; Hourigan & Scheib 2009; Phillips, 2003; West, 2014). Furthermore, it is also necessary to consider the use of musical strategies that are useful for non-musical learning, as well as evaluating the interdisciplinary treatment of music in its relationship with the other subjects (Pellegrino, 2011).

Nonetheless, the results obtained indicate that it is vital to increase the train-

ing period to encourage an improvement in the learning of the module to help future primary school teachers in their music teaching (Russell-Bowie, 2009). This is because, while it has been shown that there are centres that give a greater teaching load to music teaching, as is the case of university 2 where the module lasts for the whole year, this does not lead to a greater level of knowledge for the students, who only attain better results in the Perception and expression of musical language factor. This reveals that there is a wide methodological range applied to the subject in each of the centres (Cain, 2007; Golombek & Doran, 2014; Strand, 2006), as can be seen in the means obtained. This circumstance also indicates that it is necessary to unify the criteria on the content imparted, so that the students learn all of the basic aspects that must be covered in primary school music teaching, and these are imparted in the same way in all educational centres.

Finally, in relation to the third objective of this work, the results obtained revealed that the overall rating the students give to the musical knowledge they acquired is a pass mark. These results underline the need to go into greater depth in music teaching to increase the students' theoretical knowledge and at the same time develop their teaching strategies to foster the proper discharge of their teaching activity in their future teaching practice (Yim *et al.*, 2007).

As for the results obtained in the Pearson correlation analysis, the relationship existing between the factors analysed was confirmed, emphasising the importance of studying all of them during the

music training for students on the primary education degree, while at the same time serving to reaffirm the arguments put forth in the previous paragraph. Furthermore, the highest level of correlation corresponds to the *Curriculum-teaching* and Perception and expression of musical language factors, something that might coincide with the content that is most accessible to the students.

Ultimately, this piece of work focusses on the music training received by the future generalist teachers who participated in this study, for them to teach the content of the primary school music curriculum, and it concludes that music training must be increased for all of the factors analysed. Having reached this point, it is also necessary to ask what music training generalist teachers should have and, in the Spanish context, reflect on the role that specialists must adopt. Whatever the response, it would be highly advisable to offer specialisation courses to complete the music training of future primary school teachers, through which a quality musical education can be guaranteed that helps primary school children to approach and enjoy music.

References

- Adessi, A. R. & Carugati, F. (2010). Social representations of the 'musical child': an empirical investigation on implicit music knowledge in higher teacher education. *Music Education Research*, 12 (3), 311-330.
- Aróstegui, J. L. (2006). La Formación del Profesorado en Educación Musical ante la Convergencia Europea en Enseñanzas Universitarias. *Revista de Educación*, 341, 829-844.

- Biasutti, M. (2010). Investigating trainee music teachers' beliefs on musical abilities and learning: a quantitative study. *Music Education Research*, 12 (1), 47-69.
- Cain, T. (2007). Mentoring trainee music teachers: beyond apprenticeship or reflection. *British Journal of Music Education*, 24 (3), 281-294.
- Cámara, A. (2005). Actitudes de los niños y las niñas hacia el canto. *Musiker*, 14, 101-119.
- Casals, A. & Viladot, L. (2010). Maestros de música y maestros generalistas frente a un material interdisciplinar: ¿más sabe el diablo por viejo que por diablo! *LEEME*, 25, 26-48.
- Cea, M. A. (2012). *Metodología cuantitativa: Fundamentos e innovaciones*. Madrid: Síntesis.
- Cevik, B. (2011). Personality self-perceptions of Turkish music pre-service teachers in relation to department satisfaction. *International Journal of Music Education*, 29 (3), 212-218.
- Conway, C. M., Eros, J., Pellegrino, K., & West, C. (2010). Instrumental Music Education Student's Perceptions of Tensions Experienced during their Undergraduate Degree. *Journal of Research in Music Education*, 58 (3), 260-275.
- Crow, B. (2008). Changing conceptions of educational creativity: a study of student teachers' experience of musical creativity. *Music Education Research*, 10 (3), 373-388.
- De Vries, P. (2013). Generalist teachers' self-efficacy in primary school music teaching. *Music Education Research*, 15 (4), 375-391.
- Estévez, J. F., & Pérez, M. J. (2007). *Sistema de indicadores para el diagnóstico y seguimiento de la educación superior en México*. México: ANUIES.
- García-Gil, D., & Ríos-Vallejo, P. (2013). Estereotipos femeninos en creaciones narrativas musicales. *Música y educación: Revista trimestral de pedagogía musical*, 96, 92-107.
- Georgii-Hemming, E. & Westvall, M. (2010). Teaching music in our time: student music teachers' reflections on music education, teacher education and becoming a teacher. *Music Education Research*, 12 (4), 353-367.
- Golombek, P. & Doran, M. (2014). Unifying cognition, emotion, and activity in language teacher professional development. *Teaching and Teacher Education*, 39, 102-111.
- Hallam, S., Burnard, P., Robertson, A., Sale, C., Davies, V., Rogers, L., & Kokatsaki, D. (2009). Trainee primary-school teachers' perceptions of their effectiveness in teaching music. *Music Education Research*, 11 (2), 221-240.
- Hennessy, S. (2009). Creativity in the music curriculum. En A. Wilson (Ed.), *Creativity in Primary Education* (pp. 134-147). Exeter, UK: Learning Matters.
- Holden, H. & Button, S. H. (2006). The teaching of music in the primary school by the non-music specialist. *British Journal of Music Education*, 23 (1), 23-38.
- Hourigan, R. M. & Scheib, J. (2009). Inside and Outside the Undergraduate Music Education Curriculum: Student Teacher Perceptions of the value of Skills, Abilities and Understandings. *Journal of Music Teacher Education*, 18, 48-61.
- Howe, M. J. A., Davidson, M. J., & Sloboda, J. A. (1998). Innate talents: reality or myth? *Behavioral and Brain Sciences*, 21 (3), 399-407.
- Jeanneret, N. & Degraffenreid, G. M. (2012). Music education in the generalist classroom. En G. E. McPherson y G. F. Welch (Eds.), *The Oxford Handbook of Music Education* (pp. 399-416). Oxford, UK: Oxford Handbook in Music.
- Kerlinger, F. N. & Lee, H. B. (2008). *Investigación del comportamiento. Métodos de investigación en Ciencias Sociales*. México: McGraw-Hill Interamericana.
- Lamont, A. (2011). The beat goes on: music education, identity and lifelong learning. *Music Education Research*, 13 (4), 369-388.

- Ley Orgánica 2/2006, de 3 de mayo, de Educación (BOE n.º 106, 04 de mayo de 2006).
- Ley Orgánica 8/2013, de 9 de diciembre, para la mejora de la calidad educativa (BOE n.º 295 de 9 de diciembre de 2013).
- Muruamendiaraz, N., Ordoñana, J. A., & Goldaracena, A. (2010). La formación del profesorado de Música en Primaria en Francia e Italia. *Profesorado. Revista de currículum y formación del profesorado*, 14 (2), 83-93.
- Orden ECI/3857/2007, por el que se establecen los requisitos para la verificación de los títulos universitarios oficiales que habiliten para el ejercicio de la profesión de Maestro en Educación Primaria (BOE de 27 de diciembre de 2007).
- Ortiz, H. J. (2004). Situación actual de la educación musical y artística en la formación del profesorado de la UPNA. *Revista de Psicodáctica*, 17, 57-64.
- Pellegrino, K. (2011). Exploring the Benefits of Music-Making as Professional Development for Music Teacher. *Arts Education Policy Review*, 112 (2), 79-88.
- Phillips, K. H. (2003). Creating a safe environment for singing. *Choral Journal*, 43, 41-43.
- Pozo, C. & Bretones, B. (2015). Dificultades y retos en la implantación de los títulos de grado en las universidades españolas. *Revista de Educación*, 367, 147-172.
- Real Decreto 1440/1991, por el que se establece el título universitario, oficial de Maestro, en sus diversas especialidades y las directrices generales propias de los planes de estudios conducentes a su obtención (BOE de 11 de octubre de 1991).
- Real Decreto 1393/2007, por el que se establece la ordenación de las enseñanzas universitarias oficiales (BOE de 30 de octubre de 2007).
- Real Decreto 1594/2011, por el que se establecen las especialidades docentes del Cuerpo de Maestros que desempeñen sus funciones en las etapas de Educación Infantil y de Educación Primaria reguladas en la Ley Orgánica 2/2006, de 3 de mayo, de Educación (BOE de 9 de noviembre de 2011).
- Real Decreto 126/2014, por el que se establece el currículo básico de la Educación Primaria (BOE de 1 de marzo de 2014).
- Roche, E. M. (1994). La enseñanza de la música en el marco de la LOGSE. *Aula de Innovación Educativa*, 24, 5-8.
- Rohwer, D. & Svec, C. (2014). Perceived Value of Research Preparation Opportunities for Future Music Education Professors. *Update: Applications of Research in Music Education*, 33 (1), 57-64.
- Russell-Bowie, D. (2009). What me? Teach music to my primary class? Challenges to teaching music in primary schools in five countries. *Music Education Research*, 11 (1), 23-36.
- Salkind, N. J. (1999). *Métodos de investigación*. México: Prentice Hall.
- Sebastián, A. (2006). *La presencia de estereotipos de género en el sistema educativo como determinante del desarrollo personal y profesional (Estudio descriptivo)*. Madrid: Ministerio de Trabajo y Asuntos Sociales. Instituto de la Mujer.
- Seddon, F. & Biasutti, M. (2008). Non-music specialist primary school teachers' confidence in teaching music in the classroom. *Music Education Research*, 10 (3), 403-421.
- Serrano, J. A., Lera, A. y Contreras, O. (2007). Maestros generalista vs especialistas. Claves y discrepancias en la reforma de la formación inicial de los maestros de primaria. *Revista de Educación*, 344, 533-555.
- Strand, K. (2006). Learning to Inquire: Teacher Research in Undergraduate Teacher Training. *Journal of Music Teacher Education*, 15, 29-42.
- Watt, H. (2000). *The teaching of music in the primary school by the non-specialist*. Unpublished doctoral dissertation, University of

- Durham, United Kindom. Retrieved from http://etheses.dur.ac.uk/4196/1/4196_1715.pdf?UkUDh:CyT (2017-01-25).
- West, C. (2014). First-Generation Mixed Methods Designs in Music Education Research: Establishing an Initial Schematic. *Bulletin of the Council for Research in Music Education*, 199, 53-67.
- Yim, H. Y. B., Abd-El-Fattah, S., & Lee, L. W. M. (2007). A Rasch Analysis of the Teachers Music Confidence Scale. *International Education Journal*, 8 (2), 260-269.

Music in secondary education: interest in content according to students and teachers in year four of compulsory secondary education

Música en Secundaria: interés por los contenidos, según el alumnado y el profesorado de 4º de ESO

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Abstract:

In this work we start from the hypothesis that there is a lack of connection between what students find interesting and the content set by the curriculum because the curriculum was set by taking into consideration professional and/or political interests. In this article the level of interest of students in year four of compulsory secondary education in the content of the music subject are described, as interest is a factor that influences learning. This is a descriptive study based on survey methods and qualitative research, and it examines which types of content are most interesting for students and which ones inspire little or no interest in them. After analysing the results, we make some proposals that might help to increase students' interest in the content of music as a subject.

Keywords: Secondary school, music, interest, content.

Resumen:

En esta investigación partimos de la hipótesis de que existe desconexión entre los intereses del alumnado y los contenidos que fija el currículo, ya que éste se realiza desde intereses profesionales y/o políticos. En este artículo se muestran los intereses que tiene el alumnado de 4º curso de Secundaria por los contenidos de Música, al ser el interés uno de los factores que influyen en su aprendizaje. Se trata de un estudio descriptivo basado en métodos de encuesta e investigación cualitativa, y en él se analizan qué contenidos resultan más interesantes para el alumnado y cuáles suscitan menos o ningún interés. Tras el análisis de los resultados, sugerimos propuestas que creemos podrían contribuir a mejorar el interés por los contenidos de la asignatura de Música.

Descriptores: Educación Secundaria, música, intereses, contenidos.

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1. Introduction

At present music is the most important mass art form and is one of the most significant identifying references for young people. Therefore, one of the aims of the subject of music in Spain's Compulsory Secondary Education (ESO) is to be a point of contact between the outside world and the music imparted in the classroom. One important way to achieve this end is to start from students' interests in the content presented to them using a teaching model based on dialogue, where context is of fundamental importance.

In addition, in ESO special attention must be paid to the acquisition and development of basic skills, including artistic and cultural ones, such as: «appreciating, understanding, and critically evaluating different cultural and artistic expressions, using them as a source of pleasure and personal enrichment and seeing them as part of the cultural heritage of a people» («apreciar, comprender y valorar críticamente diferentes manifestaciones culturales y artísticas, utilizarlas como fuente de disfrute y enriquecimiento personal y considerarlas como parte del patrimonio cultural de los pueblos», Decree 231/2007 of the Junta of Andalusia).

The music curriculum, like that of any other subject, comprises objectives, content, activities, means and resources, and evaluation, all of which should be directed towards the development of artistic and cultural competences, among others. Therefore, in this piece we describe how interested fourth-year ESO students are in the different types of content of this subject, with the assumption that an understanding of this will help with and improve the

work of the teachers and the music education of the students, through the preparation of a more personalised curriculum.

2. Theoretical framework

Interest can be understood as a means for achieving learning and as an educational aim. The pedagogues of the classical world believed that interest could be awoken by making lessons enjoyable and appealing and by getting to know the students. According to Dewey (1925), making the subject interesting means presenting it in such a way that students can appreciate its importance, its connections, its value and how it relates to what is meaningful to them, anticipating what Ausubel proposes in his theory of significant learning (cf. Pozo, 1989) and Freire in his idea of dialogic learning based on interaction and communication. Freire maintains that it is important to educate curiosity, something indispensable for the cognitive process, suggesting dialogue as a way of doing this — asking and answering questions (1997, p. 19) — and making teaching, learning, and studying serious acts but also sources of joy.

As an aim, interest transcends didactics to be educational. To achieve this, it has been proposed that students' interest in the values contained in the ESO curriculum and in respect for the differences that integrate the various curricular and extracurricular contexts be awakened, as «we should not forget that the general curricular framework must connect with the real needs and interests of the students, at all levels of education» («no hay que olvidar que el marco curricular general ha de conectar con las necesidades e intereses reales de los estudiantes, en todos

los niveles educativos», Díaz & Ibarretxe, 2008, p. 100). Ultimately, it is a case of awakening an interest in everything in the music classes that leads to the overall education of the students.

It is important to note that the universal interest to which Freire refers agrees with Herbart's concept of multiple interests (1923), according to which anything can be of interest.

We cannot neglect the very important role of motivation in everything proposed above, as both concepts are interrelated. As García Hoz (1982) notes, when a student is interested in a certain subject or activity, the problem of motivation is solved, and, more recently, Bonetto and Calderón (2014) affirm that students who are motivated show more interest in the activities to be performed in the classroom.

We agree with Cerezo and Casanova (2004) when they say that the treatment received from teachers affects students' motivational orientations, and we also agree with Guillén (2012) who states that as teachers we should encourage the required motivation among students, arousing their interest and connecting with their desires for autonomy, progress, recognition, or simply well-being (initial motivation). Following on from this, the entire process must be managed so that the stated objectives can be attained, providing strategies for approaching the different tasks (achievement motivation). To do so, effort — so little valued at present — is vital. Furthermore, we must assume that not everything we do will be interesting and appealing for our students, and so we should optimise the learning, starting from their prior knowledge and interests.

It is also important to be able to transmit our enthusiasm for what we do and to be responsible for creating a positive emotional climate that favours the continuous acquisition of appropriate knowledge and social habits. The interdisciplinary role with other subjects is crucial in this aspect, as supporting it means supporting a new more open, flexible, supportive, democratic, and critical type of person. The contemporary world needs people to have an ever more adaptable education so they can cope with a society where the future has a degree of unpredictability that has never before been seen in the history of humankind.

As Gilbert (2005) observes, we should ask ourselves the questions every student asks when entering the classroom: «What is in it for me? What is it for? Why should I bother learning this?» (p. 27). We should discuss these questions with the students, to make it possible for them to be motivated based on how they can benefit from the subject, and especially knowledge of its content.

Focussing on content, Coll (1992) defines it as the set of cultural forms and knowledges selected to form part of the different curricular areas, the assimilation and ownership of which is vital for the development and socialisation of the students.

Subject-specific content, as in the case of the content of music, must be seen as a means for developing competences in the students as these are more lasting and transferable than the content itself. Accordingly, it is important to approach it through projects where teachers can motivate the need to explore new things through an initial activity that awakens

interest and encourages questions. This could be a video, a debate, a guest in class, a book, etc. (Pereira, 2014).

Nonetheless, like the curricula from other eras, the current secondary education curriculum — the definitive implementation of the LOMCE (Organic Law for Improving the Quality of Education) is on hold — was prepared based on political interests, ignoring the psychological and social focus in the design of the curriculum. This means that it lacks a full connection with the students' interests, something that occurs in practically all subjects.

Gil de la Serna and Escaño (2010) note that the content delivered in the centres comprises cultural forms that society, through its educational institutions, has selected independently of the interests of specific students. Teachers play a fundamental role, as they make the students see the interest of this content, but to achieve this they must consider students' expectations, prior knowledge, and the contexts in which they live, as it is they who interpret the new information. Ultimately, «it is necessary to explore the ways in which content can be inserted that is consistent with the characteristics of the students, the teaching staff, and specific educational groups» («hay que indagar en las maneras en que se posibilita la inserción de contenidos acordes con las particularidades de los estudiantes, los equipos docentes y los colectivos educativos concretos», Díaz & Ibarretxe, 2008, p. 101).

Furthermore, since the implementation of the LOGSE (Organic Law on the General Organisation of the Educational System), music has been an optional subject in year four of ESO, and it is striking

how little motivation some students have as they enter a year where, as well as completing compulsory education, they must choose some subjects. Turning this lack of motivation into epistemological curiosity, as Freire proposes, is what we have attempted to do by investigating the interests of the students based on their experience and the curiosity of the teachers, since the education of the twenty-first century most needs «an in-depth theoretical reflection based on one's own experience of practical and intellectual work» («una profunda reflexión teórica realizada desde la propia experiencia de trabajo práctico e intelectual», see Flecha, 1997, p. 9). Also, as Rusinek states (2004), we should note that in secondary school, students have an attitude of consumerist passiveness and lack of motivation towards acquiring the information that the teacher offers them.

3. Aim and objectives of the research

The aim of this work, based on knowledge of what content is of more or less interest to students in year four of ESO, is to make proposals that might contribute to boosting interest in the subject and to preparing a curriculum that is more connected with the students. Taking the students' interests as a starting point means considering their knowledge, something which is necessary for dialogic learning and for the principle of quality teaching, as stated in the educational legislation.

This research intends to consider the voices of students and teachers, who, as learners and agents in education respectively, can provide ideas and vital data for improving the teaching and learning

processes of music. The proposed aim is broken down into the following objectives:

- To discover the interests of year-4 ESO students from centres in Seville regarding the content of music as a subject, from their own perspective.
- To analyse the interests of these students regarding the content, according to the teachers.
- To examine the possible reasons for any lack of interest or lack of motivation regarding certain content.
- To make proposals to improve interest levels in the content of ESO music, based on how it is rated by students.

Taking the objectives proposed in this research as a starting point, we start to carry out the study with some prior assumptions, that is to say, proposals or hypotheses that relate our empirical data to theories previously adopted in the theoretical framework. We emphasise the following:

- a. We believe that it is necessary to know and analyse the students' interest in the content of the music subject in ESO, as well as the opinion of their teachers on this matter.
- b. We believe that there is a disassociation between content and interests, as these interests are not known or taken into account as much as they should be when planning the teaching methodology.
- c. We think that there is a lack of interest among students about anything that is not contemporary to them, is not topical or that they do not see as clearly useful in their everyday life.

4. Research methodology

The focus of the work we present is framed within a descriptive methodology, which, according to Best (1970, p. 61), «refers to what it is in detail and interprets it. It relates to existing conditions or connections; prevailing practices, opinions, perspectives, or attitudes that are maintained; ongoing processes; effects that are felt or trends that develop». We see our research as descriptive owing to its proposed objectives, which are none other than to describe a specific reality which we are studying when it has already taken place without the intervention of the researcher. In other words, it represents a descriptive methodology defined as *ex post facto*, meaning «after the fact», which alludes to the event occurring first and its possible causes and consequences being analysed afterwards. We performed the research with a quantitative focus using surveys, and qualitatively with interviews. This is a case of methodological complementarity, as both methods provide information about different aspects of reality: the students' interests, and the teachers' perspectives. As Bericat notes (1998), the strategy of complementarity is based on examining a given social reality from two different viewpoints, combining them to enrich our understanding of the facts.

The survey was carried out using a questionnaire in which the students were asked to state freely their level of interest in the content of the subject. The criterion followed for preparing the questionnaires was to list the content contained in the legislation in force that covers the fourth year of ESO and formulate questions relating to the level of interest in this content (see Table 3). Each question has four possible

answers: not at all interested (1), not interested much (2), reasonably interested (3), and very interested (4). There is also an open question. Similarly, the interviews were carried out by asking the teachers a series of questions relating to the level of interest which, according to them, students show in the content delivered in the classroom and the possible justification for this.

It is then a matter of being able to compare and complete the answers given by the students with those given by the teachers to find common features and differences. In this way, we can reach conclusions with the hope of improving levels of student interest and their learning processes and of reducing the lack of alignment between their interests and the content delivered.

The target population of the study is the students taking music in the public and private schools in the city of Seville that offer it as an optional subject in year four of ESO. Of the 50 public centres, 37 offer it (74%), while only three of the 61 private schools offer it (4.90%). This very low percentage could be because other

subjects are offered, as they feel that the musical education received in the first two years of secondary education is sufficient. In total, 40 centres in Seville offer music in year four of ESO and these form the population of our research. The sample comprises 30 centres, as we believe that it was not necessary to include all of them given that some of them are fairly close to each other, and so there are zones with more centres than others. In any case, the 30 centres represent 75% of the population; of these, 27 are public (72.90%) and 3 private (100%). The centres selected correspond to different areas in the city, thus representing a range of socioeconomic profiles and the ten school zones established by the Department of Education. Within each zone, the criterion followed was to try to choose the centres that are furthest from each other, and, in this way, achieve a greater level of representativeness. The sample comprises 405 students, of whom 354 (87.41%) attend public centres and 51 (12.59%) attend private centres. Of those surveyed, 224 are girls (55.30%) and 181 boys (44.70%). These data are shown in Table 1.

TABLE 1. Centres of the population and schools and students in the sample.

ESO centres in the city of Seville		Population (schools offering music in year 4 of ESO)	Sample		
			Schools	Students	
				Male	Female
Private	61	3	3	14	37
Public	50	37	27	210	144
Total	111	40	30	224	181
				405	

Source: Own elaboration.

The schools where the questionnaire was distributed were used for selecting the teachers, and the criterion followed for this process was the representativeness of the different zones, the different socioeconomic contexts, and, obviously, the teachers' willingness to participate in the study.

In Table 2 the distribution by zones and schools of the 20 teachers selected can be seen, as well as their sex and teaching experience. They are all from public centres, since, as noted above, the number of private centres that offer music in the fourth year of ESO is of low significance.

TABLE 2. Distribution and characteristics of the teachers in the sample.

Zones	Teachers selected	Characteristics of the teachers
Zone 1	IES «G.A. Bécquer»	Male, 25 years' experience
	IES «Carlos Haya»	Male, 15 years' experience
Zone 2	IES «San Isidoro»	Male, 11 years' experience
	IES «San Jerónimo»	Female, 16 years' experience
	IES «Miguel de Cervantes»	Female, 14 years' experience
	IES «Inmaculada Vieira»	Female, 9 years' experience
Zone 3	IES «Pino Montano»	Male, 13 years' experience
Zone 4	IES «San Pablo»	Female, 25 years' experience
	IES «Joaquín Turina»	Male, 19 years' experience
Zone 5	IES «Pablo Picasso»	Female, 11 years' experience
	IES «Valle Inclán»	Male, 15 years' experience
Zone 6	IES «Torreblanca»	Female, 12 years' experience
Zone 7	IES «Luis Cernuda»	Male, 25 years' experience
Zone 8	IES «Murillo»	Female, 11 years' experience
	IES «Luca de Tena»	Female, 24 years' experience
	IES «Ramón Carande»	Male, 25 years' experience
	IES «Nervión»	Female, 12 years' experience
Zone 9	IES «Bellavista»	Male, 13 years' experience
	IES «Punta del Verde»	Female, 16 years' experience
Zone 10	IES «Romero Murube»	Female, 11 years' experience

(IES = Instituto de Educación Secundaria, Secondary School)

Source: Own elaboration.

As Table 2 shows, the teachers interviewed included 11 women and 9 men. The average experience was slightly over 14 years in the case of the women and was almost 18 years in the case of the men, and so we believe that the sam-

ple comprised teachers with minor differences regarding gender and teaching experience. Given the differing number of schools in each zone, some zones were represented by just one while others needed four.

TABLE 3. Content of the questionnaire related to the thematic blocks from the official curriculum.

Thematic blocks	Thematic units	Content of the questionnaire
Music, society, and technology	Basic elements of music	Reading and writing musical notation on the staff
		Analysing a song or piece of music
	The importance of music	Music criticism through textual commentary
	Electronics and computing in music	Electronic music in general
	Music in the media	Music on the radio
		Film soundtracks
Concert music	Concert music in Spain	Spanish music from several centuries ago
	Concert music from around the world	Gregorian chant
		Music with several voices or polyphonic music
		Music from the Baroque period (Bach, Vivaldi)
		Music from the classical period (Mozart)
		The music of the Romantic period (Brahms, Wagner)
		The concert music of the 20th century (Ravel, Falla)
Traditional music in Spain and around the world	Traditional music in Spain	Folk music or traditional Spanish music
		Andalusian popular music
		Sevillana dancing The music of Holy Week
	Flamenco	Flamenco
Popular urban music	Traditional music around the world	Folk music from the rest of the world
	Jazz	Jazz
	Popular urban music since jazz	Rock music
		Pop music
		Disco music
		House music
		Hip-hop music
		Reggaeton music
		Rap

Source: Own elaboration.

For collecting the data, we prepared a Questionnaire on students' interests regarding content with 27 items complemented by an open question about how they would like music classes to be. The items refer to the different thematic units in year-four ESO music, units which in turn derive from the established thematic blocks. This is shown in Table 3. We should note that the questionnaire was administered during the third term to ensure that a greater number of content areas had already been covered by the teachers during the academic year.

To analyse the data, the answers were given numerical codes from 1 (not at all interested) to 4 (very interested) as appropriate. After this initial coding process, they were analysed and the values were entered in the SPSS computer program, giving the first tables of results. More specifically, basic descriptive studies were performed for each of the items; frequencies and percentages of answers for those

surveyed were calculated for each item, as well as its average and standard deviation.

For the interviews, we used the Nudist program and we codified the answers, paying special attention to the most significant answers.

5. Data analysis

5.1. Students' interest in the content of music as a subject

In Table 4 we show the results of the analysis of the answers, the reliability of which calculated as 0.83 by applying Cronbach's α . They refer to the level of interest for each of the pieces of content. These results expressed in percentages are complemented by the average and the standard deviation so that the most significant values can be selected. The content is ordered from highest to lowest level of interest.

TABLE 4. Frequency distribution and descriptive statistics for level of interest in the course content.

Item	Interest in the content	Answers (%)				Mean	S.D
		None	Little	Fairly	A lot		
22	Disco music	9.18	17.62	31.51	41.69	3.06	.980
20	Pop music	8.44	20.10	37.72	33.75	2.97	.937
25	Reggaeton music	18.86	10.92	25.06	45.16	2.97	1.148
24	Hip-hop music	10.42	28.29	29.28	32.01	2.83	.996
15	Flamenco	15.00	24.75	30.50	29.75	2.75	1.042
2	Music on the radio	6.20	34.00	40.20	19.60	2.73	.845
23	House music	12.94	27.61	33.33	26.12	2.73	.991
1	Film soundtracks	6.68	34.41	39.11	19.80	2.72	.856

Item	Interest in the content	Answers (%)				Mean	S.D
		None	Little	Fairly	A lot		
17	Sevillana dancing	19.11	28.54	24.07	28.29	2.62	1.090
26	Rap	18.36	29.53	26.30	25.81	2.60	1.062
3	The music of Holy Week	25.00	25.50	19.80	29.70	2.54	1.160
27	Electronic music in general	17.12	34.74	26.55	21.59	2.53	1.013
16	Andalusian popular music	17.62	33.75	28.78	19.85	2.51	1.001
21	Rock music	26.93	39.65	19.20	14.21	2.21	.995
9	Music with several voices or polyphonic music	23.02	43.07	26.98	6.93	2.18	.864
18	Folk music from the rest of the world	32.01	44.91	16.13	6.95	1.98	.872
19	Jazz	37.47	36.72	18.86	6.95	1.95	.917
4	Reading and writing musical notation on the staff	39.95	40.45	14.14	5.46	1.85	.860
5	Analysing a song or piece of music	39.85	40.59	14.11	5.45	1.85	.859
6	Music criticism through textual commentary	39.45	43.18	14.14	3.23	1.81	.794
11	Music from the classical period (Mozart)	46.27	31.84	17.41	4.48	1.80	.882
14	Folk music or traditional Spanish music	44.53	38.06	14.18	3.23	1.76	.813
10	Music from the Baroque period (Bach, Vivaldi)	52.87	28.68	14.96	3.49	1.69	.851
12	Music from the Romantic period (Brahms, Wagner)	49.50	36.57	10.45	3.48	1.68	.798
8	Spanish music from several centuries ago	51.24	34.16	10.89	3.71	1.67	.814
13	20th century concert music (Ravel, Falla)	51.49	35.57	9.95	2.99	1.64	.780
7	Gregorian chant	64.60	27.97	5.69	1.73	1.45	.683

Source: Own elaboration.

By examining Table 4 we can see that 13 of the 27 items exceed the mid value on the scale (2.5). These correspond to the content that most interests the stu-

dents. The content that inspired the most interest was disco music (3.06), followed by pop and reggaeton, both on the same score (2.97), hip-hop (2.83), and flamenco

(2.75). In contrast, the items with the lowest scores are those relating to historical topics, with Gregorian chant standing out (1.45). Other types with similar scores include twentieth century concert music (1.64), Spanish music from several centuries ago (1.67), music from the Romantic period (1.68) and Baroque music (1.69). Going into more detail, it is worth noting that 45.16% of those surveyed said they were very interested in reggaeton music, 41.69% in dance music, and 33.75% in hip-hop. As well as these, a considerable percentage of students also said they found flamenco, music on the radio, house music, and film soundtracks very interesting. With regards to flamenco, it is worth noting that in the open question most of the students said that it had little presence in the classroom and wanted it to have a greater weight in the curriculum with a greater focus on practice. This is understandable as the questionnaire was distributed in Seville. It is also important to note the interest shown in the music of Holy Week, electronic music and Andalusian popular music, albeit with somewhat lower scores than the previous types.

They showed little or no interest, as stated above, towards content of a historical nature, in particular Gregorian chant which was identified by over 64% of the students. Furthermore, 51% of those surveyed did not have an interest in Spanish music from several centuries ago or Baroque, classical, or Romantic music or twentieth-century music from outside Spain. The lack of interest in writing musical notation or analysing a song or piece of music is also noteworthy, with 40% showing no interest.

5.2. Teachers' views on students' interest in the content

The main topics covered by teachers in the interviews, through five general questions and six more specific ones, were as follows:

- Interest in the areas' content and whether they need modifying.
- Students' motivation, starting from their prior interests and knowledge.
- The preparedness and motivation of the teachers, as well as their methodology.
- The question of whether to tackle the history of music.
- ICT and its application in the classroom.
- Music in the media.
- The importance of music education for the government and society in general.

A considerable percentage of the students said that they have little interest in the content, as just over 50% of the items (14 of 27) scored below 2.5 on the table, according to the teachers the content of the music subject is interesting for the students and so they do not believe that it is necessary to modify it.

When evaluating the students' interest in the content, many teachers commented that it depends to a significant extent on the preparation of the teachers and their interests in the content, as in general what the student essentially wants to do is get a pass mark. One teacher said:

The student's level of interest mainly relates to passing, the most dedicated ones do what they are told and the least

dedicated also try ... I see that how much the students' interest is inspired depends quite a lot on how inspired the teacher is on that day.

Consequently, the motivation that the teacher transmits to the students is fundamental and is of significant importance in turning something which might be expected to be boring into appealing content. In one interview a teacher said:

In the blocks of content the teacher's enthusiasm has an impact, because with something the students really don't know about, but I really like, I can see that it hooks them better.

Large amounts of theory bore the students, but they do like to sing or cover pop songs or other songs that they know, something we already saw in the information provided in the questionnaires. Motivation is fundamental. One teacher commented:

They get bored more in the theoretical part, they are more motivated in the practical part. Although a student who lacks motivation will lack motivation in everything, ... they always love singing, seeing any pop song they already know.

Some teachers emphasise the importance of instrumental practice, especially the use of carillons, going so far as to say that:

what they like most is playing instruments, especially with the carillons. ... They are very interested in making music, more than in studying.

Regarding this, we should note that Scoppola (2012), in the light of the results

of some research, says that playing an instrument can help to develop an interest in music as a subject.

They also like listening, although they find it harder than playing:

They like playing most. At first they find listening hard, but they come to like it too.

According to the interviewees, it is a good idea to work on contemporary music, as it is much requested by the adolescents, albeit moving backwards while analysing it to explore its origins. One teacher said:

With pop, rock, and jazz music, I try to focus on it backwards. In other words, I said to them: You see this? Well this comes from this group from the 70s, it did something similar to this, and that really caught their attention; listening to different versions of lots of songs from the 60s or soul music, they liked that.

Similarly, it is important that the students see the content as relevant to them, and so are more interested in it:

Obviously, rock and pop music are very relevant and there is lots of interest in it. I also try to get students hooked on a type of content because they see it as relevant.

Some teachers start by reviewing musical language and then they move on to pop music, with the students playing it on instruments. One teacher said:

I start with content relating to musical language, and then, from the second term, pop music with a theory part and exercises in oral classes, and this alternates with playing songs from different periods on the keyboard.

Other teachers said:

I think it is very important that they know where the music they listen to now comes from.

When you start to come to the most recent stuff, this is what they like most, they like it when you talk about rap, hip-hop, DJs. When you start telling them about where this has come from, they are interested.

Therefore, not only is explaining certain contemporary musical topics gratifying, but the process by which they were formed is even more so.

What the teachers have said has an implicit methodology based on the principles of significant and dialogic learning, which we mentioned above in the theoretical foundations, as well as the importance of arousing students' interest through their motivation.

When establishing whether the types of content delivered by the teachers match the types that most interest the students, we can see that historical content inspires little interest. One of the reasons for this problem might be the elimination of music as a subject in year three of ESO. This means that the historical topics must be covered in the second year and so might not coincide with the content of history for that year. This can cause problems with comprehension if students who do not know what the Baroque is because they have never covered it have to study the music of that period in history. One teacher said:

The students are not as well prepared for covering historical content, because,

also, it does not run in parallel with what is covered in general history.

Furthermore, the students do not understand very well why they must study historical content, as was stated in one interview:

What appeals to them the least is the history of music, and what they like most is music in the media and contemporary music.

Nevertheless, most of the teachers cover the history of music, focussing on the musical history of the twentieth century, ranging from jazz to pop, and in some cases touching on contemporary concert music. We note the following opinions:

A bit of history, but mainly from the twentieth century, from the birth of jazz and its evolution until we reach music from now.

We cover twentieth century music, jazz, musical genres. Other content as well, but basically music from the twentieth century.

Knowledge of general historical context is important and this is one way of boosting levels of interest in topics in history of music. One teacher argued:

Really there is a lack of interest and knowledge of history, and I often must do a history class to explain the context, the reason why these things develop from here.

Faced with the problems caused by the history of music, it is worth reviewing the historical content, seeking interdisciplinary connections with the social sciences, as we can see in one interview:

I revise the content of second-year social sciences ... then we start on history of music and then we move on to new technologies.

As we can see, teachers say that they are in favour of covering the history of music, alternating with contemporary music in an attempt to make the subject more appealing. Most start by reviewing the content studied in the second year because of the elimination of the subject in the third year. Among a variety of opinions, we note:

In the fourth year, I try to make the subject more attractive; so, in the first term I spend some time on general revision, then we do «The Carnival of the Animals» (El Carnaval de los animales), which is a very interesting piece.

I do an overview of content from previous years, with a foundation in harmony and then I try to do practical things, based on music they like.

It is a good idea occasionally to alternate historical music with tasks performed by the students on more recent musical groups, presenting them in class. Here are the answers of two teachers:

In the second year we do pop music and they do a piece of work on a group or a soloist and present it. ... They find their concerts, they bring in their posters, they read about the group they have chosen.

And in the other hours they carry on doing history of music, where I lean towards tasks they do relating to styles of music they like.

With regards to this, Frega (2000) considers that contemporary music should be a frequently-used material in our class-

rooms, especially if, as we always maintain, the school must be connected to the setting to which our students belong.

As for IT, the students are more interested in how the content is approached, and knowing this helps with the approach to any type of content, to ensure it is more interesting for them. One teacher said in an interview:

The students worry if the approach is too open, if they have to think. They are not concerned with the content, but rather the form ... they much prefer to use computers.

Therefore, the most appealing types of content are those that encourage the use of new technologies and those relating to the music they demand and consume on a daily basis. However, it is also important to bring them closer to music they do not usually request, especially from past eras, and this is where the teacher's task becomes difficult.

Other teachers have said that they find it very fruitful to cover content relating to music in the media, such as film, radio, and television, engaging in dialogue with what is seen and heard in these media. For example:

We look at music in the cinema, in advertising, on the radio, on TV.

And then in the last trimester we cover music in the cinema. First I give them some notes, and then we watch some films and I give them questionnaires about films, I ask them which sequence was most interesting to them, so that they pay attention.

It is also interesting to look at analysis and interpretation midway through the year. One teacher said to us:

In the second and third terms, we look at analysis and interpretation.

On the other hand, the possibility that some students might do a Baccalaureate which includes music as a subject makes it vital, if applicable, to cover certain content in depth, such as harmony, melody, and rhythm. Consequently, one teacher argued:

What I try to do is prepare them so that the next year, if I have classes with them in Baccalaureate, they have basic knowledge of harmony, melody, rhythm.

In summary, the teachers believe it is vital to use the students' previous knowledge as a starting point, giving an overview of what they have already learnt to connect it to the new material. They generally start with an overview of what was covered in the first and especially the second years, and then alternate with historical content from inside and outside Spain, with other content relating to music in the media, and popular music. This last type, along with new technologies, is in high demand from the students, although, as we have seen, it is not just important to know what content to cover, but also how to cover it. Furthermore, attention is given to interpreting and analysing scores.

Finally, regarding the importance of music education for society, which López-Quintás discusses acutely (2013), the teachers are aware that it is not valued highly enough and that the subject is somewhat side-lined by the authorities. Here are the views of some of the interviewees:

A musical education can give us a lot, and I think it is criticised and insulted a fair bit.

We are very badly treated by the authorities. I even have colleagues who have said that the music department should be closed.

It is vital to work on emotions and feelings, and our subject covers them in an elemental way. And well, we need more support from the authorities, to give our subject some recognition.

6. Conclusions

We have grouped our conclusions around the four research objectives.

Regarding the first objective, the interests of students from year four of ESO regarding the content of the music subject, are as follows:

— Disco music is the genre that raises the most interest among those surveyed, followed by pop music, reggaeton, hip-hop and flamenco.

— Music on the radio, house music, and film soundtracks were also rated as very interesting by a large percentage of students.

— The interest shown in the music of Holy Week, electronic music, and Andalusian popular music also stands out, albeit with somewhat lower ratings than the previous types.

— Little interest was shown in writing musical notation or analysing songs or pieces of music.

— Historical topics received the lowest ratings, in particular Gregorian chant, followed by twentieth-century

concert music, Spanish music from several centuries ago, music from the Romantic period and Baroque music.

As for the second objective, regarding the teachers' views of the students' interest in the content:

- The teachers do not believe it is necessary to modify the content delivered.

- They believe that it is up to them to arouse the students' interest, although this depends on the teachers' motivation and preparation.

- They think that the students will be more interested if:

- Their motivation is boosted through a methodology based on a practical focus.

- Music is experienced by performing and creating it.

- Contemporary music is linked to music from the past.

- Historical music is given less coverage, albeit without side-lining it.

- Technological resources are used.

- The students' surroundings are taken into account.

- They recognise that music should have a greater presence in the curriculum and a greater weight in society.

Regarding the third objective concerning the possible causes of lack of interest in certain areas of content of the curriculum:

- Logically, certain less appealing content areas should not be eliminated, but instead they should be linked to

the students' interests and surroundings. This involves connecting with the students' prior knowledge, making them understand that it is important for them to expand their knowledge, using the full range of musical styles, and modifying the methodology. Consequently, the first and second hypotheses are confirmed relating to the need to know the interests of the students to avoid the separation between these interests and the content delivered.

- The mass media barely broadcasts music connected with the historical content of the curriculum, which contributes to the lack of knowledge and lack of interest in it by the students. This justifies our third hypothesis regarding their lack of interest in anything that is not new.

- Some teachers have little motivation to stay up-to-date with musical styles and teacher training so that they can apply the different options and methodological resources that encourage motivation and interest among the students.

- Limited use of new technologies to avoid lecture-style classes and boost significant learning.

- Limited cooperation between other subjects and music to make initial motivation of the students possible.

- Lack of interest in choosing the subject in year four because of its elimination in year three.

- Lack of unity in educational settings to defend the rights and importance of the presence of music in compulsory teaching.

As for the fourth objective, regarding coming up with ideas to increase interest in the content of the subject:

— We reiterate that teachers do not favour modifying the content, as all the parts of it are to a greater or lesser extent important for students' cognitive and cultural development. What should be done is to prioritise those that are most fruitful. The focus on different periods should depend on the students' interests.

— It is vital to encourage motivation, starting with the teacher, as a motivated teacher will connect better with the students.

— The students' continuing consumption of music through the mass media (radio, internet, TV, etc.) should not be forgotten, as it is essential to connect with their musical tastes, and by using their consumption as a starting point they can get to know and enjoy other musical styles.

— Encouraging the importance of understanding the cultural value of music, as this way the subject will be more highly valued and regarded, something that has been lacking on the part of the authorities for some time.

— Covering historical content and setting activities that are more process based, where the students experience knowledge for themselves with the help of ICTs and where music can also have a recreational character and help them relate to their classmates.

— Not delivering a subject as universal as music from a purely theory-based perspective but instead

including meaningful experiences of musical practice so that students experience it through performance and playing instruments, making it part of their personal and social life, since, as Rusinek states (2004), motivation is related to the meaningfulness of musical experiences in the classroom.

— Connecting music as a subject in an interdisciplinary way with other subjects, especially social sciences, language, English, and physical education, taking part in projects in the school where creativity is the common link so that music can enjoy the role it deserves in the curriculum.

As a final reflection, we should ask ourselves what as teachers we expect of our students in relation to the purpose we expect music — considered by many to be the most popular art form — to have in their lives, in contributing to both their happiness and their personal fulfilment. If we are not concerned with raising the students' cultural level and we deny them the opportunity presented by introducing them to something unknown, we probably contribute to them not valuing, feeling, or enjoying music from a critical and reflexive perspective. Ultimately, as teachers we must inspire this interest, not just in mere areas of content, but in learning to learn and being happier and more cultured at a time when culture does not seem to generate enough interest in society.

References

Bericat, E. (1998). *La integración de los métodos cuantitativo y cualitativo en la investigación social*. Barcelona: Ariel.

- Best, J. W. (1970). *Cómo investigar en educación*. Madrid: Morata.
- Bonetto, V. A. & Calderón, L. L. (2014). La importancia de atender a la motivación en el aula. *PsicoPediaHoy*, 16 (1). Retrieved from <http://psicopediahoy.com/importancia-atender-a-la-motivacion-en-aula> (2016-04-24).
- Cerezo, M. T. & Casanova, P. F. (2004). Diferencias de género en la motivación académica de los alumnos de Educación Secundaria Obligatoria. *Revista Electrónica de Investigación Psicoeducativa*, 2 (1), 97-112.
- Coll, C. et al. (1992). *El contenido de la reforma: enseñanza y aprendizaje de conceptos, procedimientos y actitudes*. Madrid: Santillana.
- Decreto 231/2007, de 31 de julio de la Junta de Andalucía (BOJA de 20 de junio), por el que se establecen las enseñanzas correspondientes a la Educación Secundaria Obligatoria en Andalucía.
- Dewey, J. (1925). *El interés y el esfuerzo en la educación*. Havana: Librería Cervantes.
- Díaz, M. & Ibarretxe, G. (2008). Aprendizaje musical en sistemas educativos diversificados. *Psicodidáctica*, 13 (1), 97-110.
- Flecha, R. (1997). *Compartiendo palabras*. Barcelona: Paidós.
- Frega, A. L. (2000). Acerca de «comprender» la música contemporánea. *Eufonía: Didáctica de la Música*, 18, 16-20.
- Freire, P. (1997). *A la sombra de este árbol*. Barcelona: El Roure.
- García Hoz, V. (1982). *Sobre la motivación*. *Revista Escuela Española*. Madrid.
- Gil de la Serna, M. & Escaño, J. (2010). Motivación y esfuerzo en la Educación Secundaria. En C. Coll (Coord.), *Desarrollo, aprendizaje y enseñanza en la Educación Secundaria*. Barcelona: Ministerio de Educación/Graó.
- Gilbert, I. (2005). *Motivar para aprender en el aula: las siete claves de la motivación escolar*. Barcelona: Paidós.
- Guillén, J. (2012). *La motivación en el aula. Escuela con cerebro*. Retrieved from <https://escuelaconcerebro.wordpress.com/2012/05/09/la-motivacion-en-el-aula> (2016-05-15).
- Herbart, J.F. (1923). *Bosquejo para un curso de Pedagogía*. Madrid: Ediciones de la Lectura.
- López-Quintás, A. (2013). El poder formativo de la Música. *revista española de pedagogía*, 254, 49-58.
- Pereira, M. A. (2014). Ocho claves del aprendizaje por proyectos. Centro Nacional de Desarrollo Curricular. Retrieved from <http://cedec.educalab.es/noticias-de-portada/15598-claves-del-aprendizaje-por-proyectos> (2016-08-17).
- Pozo, J. I. (1989). *Teorías cognitivas del aprendizaje*. Madrid: Morata.
- Rusinek, G. (2004). Aprendizaje musical significativo. *Revista Electrónica Complutense de Investigación Musical*, 5 (1), 1-16.
- Scoppola, L. (2012). *Knowledge and musical ability at the end of lower secondary school*. Unpublished doctoral dissertation. Sapienza-Università di Roma.

Reflections on musical intelligence

Reflexiones sobre la inteligencia musical

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Abstract

This article analyses the characteristics of musical intelligence within the framework of the multiple intelligences model with the aim of moving forward the relationship between development, learning, and the optimisation of these intelligences. The skills and capacities that are developed in interaction with musical intelligence are analysed as are the main lines of teaching work in schools, especially in the case of people with a specific educational need. Similarly, a brief overview of the proven effects of musical practice and the development of musical intelligence is provided, identifying some of the cortical and sub-cortical areas involved in these intelligences and the modifications that musical training generates, with some suggested criteria about its pedagogical uses.

Keywords: Multiple intelligences, musical intelligence, education, development, educational needs.

Resumen

En el marco del modelo de las inteligencias múltiples, se analizan las características de la inteligencia musical, con el objetivo de avanzar en la relación entre el desarrollo, el aprendizaje y la optimización de estas inteligencias. Se analizan las habilidades y capacidades que se desarrollan en interacción con la inteligencia musical y las principales líneas de trabajo docente en la escuela, especialmente en el caso de personas con alguna necesidad educativa específica. De igual forma haremos un breve recorrido por los efectos contrastados a que da lugar la práctica musical y el desarrollo de la inteligencia musical, identificando algunas áreas corticales y subcorticales implicadas en estas inteligencias y las modificaciones que genera el entrenamiento musical, sugiriendo algunos criterios sobre los usos pedagógicos.

Descriptores: Inteligencias múltiples, inteligencia musical, educación, desarrollo, necesidades educativas.

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Within the academic community and in educational fields, the concept of multiple intelligences has been known about for a long time. This concept was proposed and developed by Howard Gardner, and although initially it was simply a theoretical concept, studies currently show this theory's possible applications to education. This article refers to multiple intelligences in general, but focusses specially on musical intelligence and on the importance of developing this at an educational level. At the current time when it seems like the arts are vanishing from curricula and from the educational system, it is necessary to underline the importance of music and the arts in general in the cognitive and emotional development of our children and adolescents.

1. Multiple intelligences

The multiple intelligences theory, developed by Howard Gardner in 1983, is a very interesting idea about how we can change our understanding of intelligence and above all of human beings' capacity to learn. From the educational perspective, the recognition that people do not all learn the same way, or learn the same things at the same pace has been particularly important. Accordingly, Gardner (2011b) asks why we continue teaching and evaluating everyone in the same way when we understand that everyone learns differently. Gardner (1994) considers that the field of human cognition should embrace a more universal range of talents, accepting that human beings have evolved to display different intelligences and not to rely in different ways on a single flexible intelligence. This con-

cept leads to the suggestion that multiple intelligences exist instead of the old idea that all human beings share a single type of intelligence. Gardner (2011a) initially proposed seven different types of intelligence, as shown in Table 1; however, in the subsequent expansion of his work, he added naturalist intelligence, although there is also the possibility of contemplating other types of intelligence such as existential or pedagogical intelligence.

TABLE 1. Types of intelligence.

Frequency
88
60
28
13
1
190

Source: Gardner, 1998.

Taking this concept of intelligence as a starting point, it is apparent that there are different forms in which each person can better perceive, understand, and interpret the information that provides them with the socio-cultural spaces in which they develop. For example, people with a greater capacity for bodily-kinaesthetic intelligence learn and perceive information better through their body and its movement, and make connections between information through the body and its movements. These people are much more adept at sports and dance than, for example, people with greater logi-

cal-mathematical intelligence. This does not mean that each person can only have one type of intelligence or is unable to develop a given type, but this will largely depend on the type of education they receive and on the setting in which they develop. The most interesting thing about this concept is understanding that no given intelligence is more important than any other and that all people can develop the different intelligences in one way or another if they are appropriately cultivated (Gardner, 2011a). In Gardner's words, each of these intelligences is «a biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture» (Gardner, 1999, p. 45).

In the years since the publication of his theory of Multiple Intelligences, Gardner has expanded his work in this area to include the concept that could be called «multiple minds». This is a very interesting concept to develop and use in the different teaching practices of the school. Gardner (2008) notes the importance of educating children and young people in the development of five different types of minds as a way of reinforcing the multiple intelligences, thus raising the really important challenges of current education. He mentions three types of cognitive minds and two emotional types of mind (2008). From the cognitive perspective, he describes the creative mind, the disciplinary mind, and the synthesising mind, and from an emotional or possibly human perspective, as Gardner calls it, there are the ethical mind and the respectful mind. The disciplinary mind

refers to the tendency of humans, and in particular schools, to turn people into specialists in a single area or topic, such as playing an instrument. Learning to play an instrument correctly requires years of practice, dedication, and study to acquire this specialisation; therefore, high levels of discipline are required. There is also the synthesising mind, which is the one involved, for example, when solving a specific task, and can take a broad range of resources and use only that information that it identifies as important and useful for solving the task in question. In the current digital era and with all the information available, processes of specialisation are becoming shorter and a rapid evaluation of all available information —or much of it— is becoming very necessary with the aim of using only the information that is genuinely relevant to synthesise it and use it appropriately. Finally, from the cognitive perspective the creative mind is described; this might not be present in all people but schools should foster it. Gardner (2008) suggests boosting it by providing challenges and obstacles to learners in different subjects so that they can develop new ways of understanding and learning. This obviously does not involve encouraging competition between students; rather, the idea is that teachers are also creative when coming up with the topics and the way of working in the school. The aim is that students, by using the different minds and intelligences, develop an approach to knowledge that motivates and interests them and so they acquire meaningful learning. From the more emotional perspective, Gardner describes ethical and respectful minds which are closely linked to moral develop-

ment. Developing these minds is related to education in values and education for citizenship, considering these areas as vital for the development and well-rounded education of a human being, beyond the basic subjects on the curriculum.

Given that the different intelligences can be cultivated and developed, Gardner, like Montessori, believes that teachers must prepare the learning environment so that it favours active and constructive learning (Ferrándiz *et al.*, 2006). This model makes it possible to value critical thinking by children when they face tasks that are very different than the ones they are used to doing. The main objective is not to evaluate how much knowledge they possess, but rather their skills, attitudes, and working habits relating to the different curriculum or learning areas. However, in schools, the differences between the intelligences are still ignored, or in simple terms only one or two of them is encouraged: linguistic and logical-mathematical, with the development of the other intelligences being neglected, and the five minds mentioned above not being considered. The problem of ignoring the differences between types of intelligence in students affects all of the educational community: schools, families, teaching staff, students, and their sociocultural setting. The different learning styles and the various intelligences are not regarded as being of equal importance (Bedoya & Amaris, 2007), resulting in the loss of talents and skills in the youth population.

At present one of the areas that is most neglected in schools and in the curriculum in Spain is the arts. Since the most recent legislative update —the Law for

Improving Educational Quality (LOMCE, 2013)— arts and music are no longer compulsory subjects and how they are delivered and the amount of time dedicated to them have become the competence of each autonomous region, meaning that there is less and less space in the curriculum and in the class hours per week for the arts.

We will now see why it is a priority to give the arts the prominence they deserve, especially music, if we want to improve our educational system and promote the development of our students.

2. Musical intelligence

Musical intelligence and the development of the so-called «musical brain» are fundamental topics in child development. A definition of musical intelligence will first be provided, then its implications for the pedagogic and emotional development of people undergoing education will be described, and finally the implications at a pedagogical level will be discussed.

Musical intelligence comprises an individual's sensitivity to melody, harmony, rhythm, timbre, and musical structure (Gardner, 1998). This skill is not just expressed in the composition and performance of pieces with pitch, rhythm, and timbre, but also in listening to and discerning them. It can be related to other intelligences, such as linguistic, spatial, and bodily-kinaesthetic (Gardner, 1998). According to recent studies (Levitin, 2014), we know that the human brain is capable of learning and deriving the rules and structure of any type of music with which it comes into contact at an early age, in a similar way to how it does

with languages. This does not mean that it cannot be learnt throughout the individual's life, but as with second-language learning, exposure and early contact with the different structures produces significantly better results. According to Levitin (2008, 2014), the neuronal developments of the human brain shows the cognitive capacity that characterises musical intelligence:

- The cognitive capacities of theory of mind, representation and reorganisation that we have as human beings are what allows the development of musical intelligence.

- The aim of art is to represent human experience selectively, emphasising the most striking elements of it or the sensations it produces.

- Having a creative brain indicates cognitive and emotional flexibility.

Gardner also states (1994) that the three skills relating to musical intelligence —perception, execution, and production— are skills that are developed from very early ages, before receiving any type of instruction or training in the topic, but consistency is required in the influence of music from the socio-cultural area to ensure better future development.

Creating art is a specifically human skill, both in its production and in the importance given to it in the development as a person (Levitin, 2008). In this sense, music, as well as setting us apart as humans, in our ability to produce, appreciate, and enjoy it, enables us to gain access to teaching and learning different key skills for relating with our surroundings, such as empathy and social relations, as

well as helping regulate different emotional states. Consequently, playing an instrument or singing can modulate levels of production of dopamine (Levitin, 2008), a neurotransmitter that helps to lift the mood and stimulates the immune system. This is very important when working in the classroom with children and adolescents as it can help regulate their emotional states, thus improving interpersonal relationships among the student body and between students and teachers. The development or stimulation of musical intelligence can be a way of helping to improve this and other aspects that interfere in the everyday process of teaching practice. Furthermore, rhythmic, patterned music has a greater mnemonic effect for codifying knowledge, the vital shared information that all members of society should know. It has also been shown that singing in a group releases oxytocin, a neurochemical substance that helps to create links of trust with other people (McNeill, 1995).

Studies also show that each part of the brain has specific functions that enable the development of musical intelligence. Without going into too much detail, we can note that the motor cortex controls the tactile feedback required for playing an instrument or for dancing, the auditory cortex makes it possible to perceive and analyse tones, the hippocampus is involved in remembering music and its experiences and contexts, the visual cortex is involved in the processes of observing dance and reading music, while the cerebellum integrates all of the movements and emotional reactions associated with playing, listening to, or dancing to mu-

sic. This shows how different parts of the brain are involved in musical processes and even how the two hemispheres interact, leading some authors such as Lacarcér (2003) to state that musical intelligence uses all of the brain, given that the interaction between the two hemispheres is necessary for performing a piece of music, using the voice in a piece of music, and for musical expression and performance. All of this leads to harmonious learning and development.

3. Pedagogic implications

After reviewing the importance of multiple intelligences, and musical intelligence in particular, it is interesting to see how this model can and should be applied in the field of education and its possible benefits for students. Accordingly, it is important to set out what we are doing and we will refer to musical intelligence in school settings, but not relating directly to music teaching. In other words, musical intelligence involves a series of skills and capacities that involve different parts of the brain that are related to other skills, capacities, and learning by human beings beyond learning to play an instrument, dance, or sing. Participating in musical activities can help children improve their skills in different learning areas such as reasoning and problem solving, lateral thinking, memory, social skills, and team work (Hobson, 2009). Similarly, it is not our aim to discuss people with extraordinary talents, or with intelligence quotients above the average; in fact, our aim is to provide tools, models, and guidelines for developing and boosting this intelligence in all students.

Accordingly, we note that Gardner (1998) suggests speaking of learning centres as a way of evaluating and developing cognitive competences. These spaces are set up within the classroom to ensure that all children have the same opportunities and explore the available materials in the eight types of intelligence. In a learning centre, topics are presented according to the interests and capacity of each group. This requires teaching that is both comprehensive and individual. Learning centres are created as spaces based around each of the intelligences, so that the children work and learn with the materials appropriate to each intelligence. The objective of learning centres for musical intelligence is to value the children's capacity to maintain intonation, rhythm, and a continuous tempo within a particular melody, developing the skills of sensitivity to tone, rhythm and musical capacity (Ferrándiz *et al.*, 2006).

Despite its independence, musical intelligence has a close relationship with interpersonal intelligence. Regarding the former, one of the most interesting implications relates to bilingualism. It is known that numerous authors maintain that language and music are two capacities with similar origins (Brow, 2001, Mithen, 2005, & Patel, 2003), with melody and speech as their connecting point, linked through intonation (Fonseca-Mora, Toscano-Fuentes, & Wermke, 2011). The areas where they show important similarities include:

- Their status as capacities that are universal and are specific to the human being.
- Both allow three forms of expression: oral, written, and gestural.

- They are learnt in childhood without specific instruction.
- They make it possible to create an unlimited number of new sequences with musical elements or words.
- They have a structure with a fixed order and grammatical rules.
- In both dimensions, the receptive capacity is followed by the productive capacity.

From this perspective, it is clear that there are major similarities between language learning and learning music. Some authors claim that structured musical training helps develop phonemic awareness and auditory and rhythmic discrimination (Toscano-Fuentes & Fonseca, 2012), facilitating children's reading ability. The use of music in language teaching boosts the development of reading, writing, listening and speaking skills (Toscano-Fuentes & Fonseca, 2012). Being able to apply the pedagogical possibilities of music education helps with balanced and comprehensive training (Leganés, 2012), as well as being a very useful medium for developing children's linguistic capacity, both in comprehension and expression. In turn, the use of music in language teaching helps the development of reading, writing, listening, and speaking skills in second languages.

4. Inclusion and music

The act of discussing multiple intelligences, as Gardner notes throughout his work, means accepting that each person has a different way of learning about the world, understanding it, and representing it to themselves. Therefore, whenever

planning learning activities, it is always advisable to take these possibilities into account. However, it is also true that some people who show particular difficulties when faced with learning and school, either on an occasional or permanent basis, and it is here that we believe that the development of musical intelligence might be of great use in schools and for teaching staff.

One constant concern in schools is what we can do to make them more inclusive, especially for people with special educational needs (SEN). It is important note that this refers not only to people with a diagnosed disability or condition, but that we must also include people who for different reasons require more or less intermittent extra support in their learning process. For example, a person of migrant origin who still does not know the language of the host country.

Since the 1990s, various types of study have been performed that note the influence of music on psychological and biological areas, especially in people with language difficulties (Leganés, 2012). Processing of language and of instrumental music are superimposed in the brain, suggesting that music education might help children with learning disorders like those affecting reading (dyslexia), and children with serious developmental disorders, such as those with autism, given that musical activity activates different circuits and specific special connections in the brain (Schlaug, Altenmueller, & Thaut, 2010). Similarly, it has been found that musical training improves sound processing for language and emotions (Kraus, 2010). Therefore, we can use music as a way of capturing the

interest of motivating participation by children with special educational needs who, as a result of the condition, are often isolated and do not participate actively in the different classes. Evidently this situation requires a much greater commitment than usual from teachers, as what is sought is the ability to adapt the normal materials and methodology to the use of music in the different subjects.

Part of the evidence for how music can help to improve the inclusion and development of people can be found in cerebral modifications. For example, the cerebral cortex has a clear ability to reorganise itself in line with its own needs, something which involves significant modifications. In the case of music, anatomical differences have been encountered in musicians who have developed skills such as absolute pitch (Soria-Urios, Duque, & García-Moreno, 2011). Another example can be found in blind people who have developed auditory skills, leading to a greater size of the auditory space in their cerebral cortex as they use visual areas for locating sounds (Soria-Urios, Duque, & García-Moreno, 2011). Other studies note that learning and acquiring a new skill produces changes in the cortical representation, such as for example, reorganisations of the motor cortex when learning to play an instrument (Soria-Urios, Duque, & García-Moreno, 2011). On these lines, it is worth mentioning a longitudinal study by Schlaug (2005) which found that children aged between 5 and 7 who started playing an instrument had better performance in fine motor skill and auditory discrimination tasks fourteen months after starting their musical training.

As stated above, processing music involves various cognitive functions and is linked to improving attention, emotion, cognition, behaviour, communication, and perception (Soria-Urios, Duque, & García-Moreno, 2011).

5. Interpersonal intelligence and music

Finally, we would like to underline the importance of focussing less on subjects and returning to a more wide-reaching sense of education. As Giroux (2001) notes, education is, above all, a process of socialisation. A process in which we learn to be citizens, relating to our surroundings in different sociocultural, political, and economic spaces. In all of this process, interpersonal and emotional development is vital but is often relegated to the background, as knowledge linked to the subjects on the curriculum that focus more on knowledge and less on skills is favoured. Musical intelligence involves emotional development that promotes empathy and expressing feelings, a process that involves knowledge and improvement of language and its expression, including sociocultural identity aspects (Rodríguez, Ezquerro, Llamas, & López, 2016). In addition, we should consider that when music is performed in a group, especially when improvised, it requires a high level of understanding of the other, empathy, and verbal and non-verbal expression (Davis, 1990).

Toscano-Fuentes and Fonseca (2012), in a study performed at the University of Salamanca, found that working in classrooms with music created a change in

behaviour among students and towards the teaching staff. Including music relaxes students, improves the classroom atmosphere, facilitates communication, provides greater social cohesion, and benefits inclusion in class. According to the information set out, we believe that the development of musical intelligence, above all the use of music and the other arts, in class in the different subjects is an interesting source of emotional and personal development for our students. This directly and indirectly involves work on self-esteem as the possibility of recognising the self and the other and working on empathy allows children and adolescents alike to evaluate and improve their levels of self-esteem. Furthermore, when boosting their different capacities and taking into account their different ways of learning through multiple intelligences, we avoid stigmatising and isolating them or separating them from the educational system and so from society.

6. Conclusions

The concept of multiple intelligences is key to contemporary education, as we cannot continue educating the children of this century using techniques from the nineteenth-century. And yet it seems that this is what we do when we treat their intelligences and consequently their ways of learning as the same. If we consider that every person understands, interprets, and relates with the world and their surroundings in different ways, we should clearly understand that they learn in different ways. The theory of multiple intelligences seeks to help us guide these new pedagogies aimed at meeting the

needs of a diverse population that might include people with special educational needs and definitively takes into account all of our educational population. In this vein, this theory states that no particular type of intelligence is better or worse than any other, but that they are all interrelated and can be strengthened through practice.

From this perspective, we should return to Gardner's idea of multiple minds, noting that not only do we have multiple intelligences, but that we have five types of mind that can help us to develop better each one of the intelligences. Of the minds he describes, we particularly concentrate the respectful and ethical minds as these are the ones that have the emotional and human component that is so important for children's development and which is connected to the development of musical intelligence in particular. As we have seen, musical intelligence is a very important source of emotional, social, and communicative development, for all types of student. Studies have noted the improvement in relationships and empathy in the cases in which it has been worked on in the school with and through music.

In addition, it is important to recall that musical training has very significant effects at a cerebral level. As has been shown, the musical mind is developed in different cognitive functions and different parts of the brain, and as more training is received, it is apparent how this causes physiological changes to adapt to the new needs, something that is highly desirable and important in the case of people with some type of special educational need, for example, a disability.

In this article, we have tried to make it clear that we are not just referring to the importance of music teaching and arts in themselves within the school, but to the use and development of musical intelligence in all areas of education, looking to strengthen different skills, including cognitive, emotional and social.

References

- Brown, J. D. (2001). *Using Surveys in Language Programs*. Cambridge: University Press.
- Davis, M. (1990). *Miles*. Toronto: Simon and Schuster.
- Ferrándiz, C., Prieto, M., Bermejo, M., & Ferrando, M. (2006). Fundamentos psicopedagógicos de las inteligencias múltiples. *revista española de pedagogía*, 233, 5-19.
- Fonseca-Mora, M., Toscano-Fuentes, C., & Wermke, K. (2011). The relation between Language Aptitude and Musical Intelligence. *Anglistik: International Journal of English Studies*, 22 (1), 101-118.
- Gardner, H. (1983). *Inteligencias múltiples. La teoría en la práctica*. Barcelona: Paidós.
- Gardner, H. (1994). *Estructuras de la mente. La teoría de las inteligencias múltiples*. Barcelona: Fondo de Cultura Económica.
- Gardner, H. (1998). A multiplicity of intelligences. *Scientific American*, 9, 19-23.
- Gardner, H. (1999). *La inteligencia reformulada: Las inteligencias múltiples en el siglo xxi*. Barcelona: Paidós.
- Gardner, H. (2008). The five minds of the future. *Schools*, 5, 17-24.
- Gardner, H. (2011a). *The Theory of Multiple Intelligences: The Battle-Scarred Journey (An excerpt from The theory of multiple intelligences: As psychology, as education, as social science)*. Discurso de investidura como Dr Honoris Causa por la Universidad Camilo José Cela, Madrid, 29 de octubre de 2011.
- Gardner, H. (2011b). *Multiple intelligences: Reflections after thirty years*. National Association of Gifted Children Parent and Community Network Newsletter: Washington, DC.
- Giroux, H. (2001). Los profesores como intelectuales transformativos. *Revista Docencia*, 15, 60-66.
- Lacárce, J. (2003). Psicología de la Música y emoción musical. *Educatio*, 20-21, 213-226.
- Leganés, E. (2012). La música como terapia complementaria en la mejora de la comunicación y el lenguaje autista. *Psicologia.com*, 16 (1).
- Levitin, D. (2008). *Tu cerebro y la música*. Barcelona: RBA.
- Levitin, D. (2014). *El cerebro musical: seis canciones que explican la evolución humana*. Barcelona: RBA.
- LOMCE, Ley Orgánica 8/2013 de 9 de diciembre, para la mejora de la calidad educativa. BOE, de 10 de diciembre de 2013, núm. 295.
- Mithen, S. (2005). *The Singing Neanderthals: The Origins of Music, Language, Mind and Body*. London, Weidenfeld y Necholson.
- Patel, A. (2003). Rhythm in Language and Music: Parallels and Differences. *Annals of the New York Academy of Sciences*, 999, 140-143.
- Rodríguez-Díaz, E., Ezquerro-Cordón, A., Llamas-Salguero F., & López-Fernández, V. (2016). Relación entre creatividad e inteligencias múltiples en una muestra de estudiantes de Educación Secundaria. *Ulu*, 2, 7-11.
- Schlaug, G., Norton, A., Overy, K., & Winner, E. (2005). Effects of music training on the child's brain and cognitive development. *Annals of the New York Academy of Science*, 1060, 219-230.
- Schlaug, G., Altenmueller, E., & Thaut, M. (2010). Music listening and music making in the treatment of neurological disorders and impairments. *Music Perception*, 27 (4), 249-250.

Soria-Urios, G., Duque, P., & García-Moreno, J. (2011). Música y cerebro (II): evidencias cerebrales del entrenamiento musical. *Neurología*, 53, 739-746.

Toscano-Fuentes, C. & Fonseca-Mora, M. (2012). La música como herramienta facilitadora del

aprendizaje del inglés como lengua extranjera. *Teoría de la Educación. Revista Interuniversitaria*, 24 (2), 197-213. Retrieved from <http://revistas.usal.es/index.php/1130-3743/article/view/10361>

Toward a pedagogy informed by research about the boy's changing voice

El desarrollo de la voz masculina durante la adolescencia: una pedagogía basada en la investigación

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Abstract:

The changing voices of adolescent boys have been included within the broad aims of vocal music education during mid-20th century. During these years, teachers gradually shifted the focus of their work from detailed representation of their own teaching experiences to increasingly rigorous research studies. This research has collectively yielded many findings important for choral teachers and their students. With this knowledge, choral teacher-conductors can confidently guide all boys with all kinds of differences. Ultimately, the goal is that these boys understand their own voices and expand their musicianship, so that they can partake in choral singing throughout their lifetimes, whenever and wherever they choose.

Keywords: Choral singing, boy's changing voice, adolescence.

Resumen:

Las voces en desarrollo de los adolescentes masculinos se han visto incluidas dentro de los amplios objetivos de la educación de la música vocal a partir de mediados del siglo XX. Durante estas décadas, los profesores cambiaron gradualmente el foco de su trabajo, desde la representación detallada de sus propias experiencias docentes, hacia la consecución de distintos estudios de investigación, cada vez más rigurosos. Esta investigación ha generado colectivamente muchos hallazgos importantes para los educadores corales y sus estudiantes. Con este conocimiento, los docentes musicales actuales pueden guiar con confianza a todos los chicos hacia la práctica coral. En última instancia, el objetivo es que estos muchachos comprendan sus propias voces y mejoren su musicalidad, para que así puedan participar en distintas actividades relacionadas con el canto coral a lo largo de su vida, cuándo y dónde quieran.

Descriptores: Canto coral, muda de la voz, adolescencia, chicos.

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1. Foundational information about adolescent boys and singing

The changing voices of adolescent boys have existed since the dawn of humanity, yet their incorporation within the broad aims of vocal music education took on new life in the mid-20th century. During these years, the foremost contributors to the conversation were Duncan McKenzie (1956), Irvin Cooper (1965), and Frederick Swanson (1977). These teachers gradually shifted the focus of their work from detailed representation of their own teaching experiences to increasingly rigorous research studies. This shift from experiential to objective data prompted vigorous debates between Cooper and Swanson that spilled onto the pages of the *Music Educators Journal* and other print sources (Freer, 2008). John Cooksey's work then followed with an examination of the commonalities among existing theories and data, concluding in a decades-long series of highly regarded research studies (see Cooksey 2000a, 2000b). Cooksey's research drew upon a broad cross-section of boys, including boys with little or no prior experience with singing and those who experienced difficulty with phonation as part of the voice change process. Cooksey's focus on the general population of boys with changing voices, not solely the changing voices of boys who sing in choirs, is an oft-overlooked yet critically important aspect of his contribution to research (Cooksey, 1989).

This research has collectively yielded many findings important for choral teachers and their students. For instance, male puberty begins as early as age 9 and as late as age 14, and the onset of puberty

is trending younger over time. A recent study of over 4,000 boys found that male puberty now begins, on average, during the 10th year of life — up to two years earlier than in the 1980s. All normally healthy boys pass through the five stages in a sequence that is predictable, even though we may not notice all five stages. Each stage is characterized by a period of growth followed by a period of stabilization. When boys enter a new stage of voice change, the most apparent shift is the appearance of newly gained lower pitches. These lower pitches are just part of the overall change process. The most reliable indicator of a stage of voice change is the total range of the singing voice, excluding falsetto (falsetto begins to emerge in the third stage of change). There is some anecdotal evidence that voices that change rapidly are likely to become basses while those that change slowly or begin late will become tenors. All male voices go through all stages, but some «rebound» to a higher pitch level after the final stage, resulting in the adult distribution of tenor and baritone voices.

Teachers should know that while voice training cannot alter the stage of change, it does assist boys in building the musculature that will support their singing during the change process. Boys may seem as though they sing an octave lower than desired when the reality is that the boy is singing correctly. Generally, the apparent low-octave singing either an auditory issue of the teacher (not the student) who hears the pitch an octave lower than it really sounds, or the student simply sings at the bottom of his range because he is imitating a teacher who sings at the bottom

of his/her range. Research indicates that vocal modeling is more about production than pitch (Hendley & Persellin, 1996).

A common issue during the voice change is when the vocal apparatus produces a substantially different pitch than was intended. This vocal «cracking» is simply a byproduct of laryngeal muscles growing at different rates. Excessive vocal cracking can be expected in boys who have had minimal singing experience, continue to use the same singing techniques as before puberty, and/or continue singing mostly in head voice/falsetto after the voice is capable of lower pitches. Another issue is that some boys seem to have gaps in their vocal range where they cannot phonate. Recent research indicates that this is most common toward the end of vocal change as boys gain weight at the end of the peak of puberty (Willis & Kenny, 2008). Some boys experience the effects of changes in the auditory system during adolescence. Some boys, for a period of time, temporarily cannot distinguish between different pitches during this period. Research indicates that this is temporary (Demorest & Clements, 2007).

What did the efforts of these teacher-researchers have in common? They confirmed that the adolescent male voice change occurs in a predictable series of stages, but in a timeframe that is not predictable or uniform. Each concluded that multi-part repertoire is required, and that teachers need to know how to work with boys at each step along the change process. McKenzie, Cooper, Swanson, and Cooksey each addressed distinct aspects of the boys' changing voice, studied starkly dissimilar populations of boys,

and made use of increasingly sophisticated research technologies to yield detailed information about the vocal physiology of adolescent males. With this knowledge, choral teacher-conductors can confidently guide all boys with all kinds of differences. Ultimately, the goal is that these boys understand their own voices and expand their musicianship, so that they can partake in choral singing throughout their lifetimes, whenever and wherever they choose.

2. Recent research about boys and singing

If we want to teach young people about their voices and choose musical activities that are optimal for these adolescents, then we need to be knowledgeable about what vocal change involves and the challenges it presents. This section focuses on a few of the more recent research findings about adolescent boys and singing.

Some research has confirmed that vocal training during the voice change may delay the progression of the voice change or at least minimize the vocal difficulties associated with it (Fisher, 2014). Even so, many choral teachers are unaware of either the biological or sociological differences between adolescent boys and girls, and are therefore unable to differentiate instruction accordingly (Campbell, 2016; Warzecha, 2013; Wicks-Rudolph, 2012). This lack of vocal pedagogy is a major factor in the self-labeling of many adolescent boys as «non-singers» (Graf, 2016; Stephens, 2012). Some boys who found success as sopranos during childhood try to retain that singing quality during and

following the adolescent voice change, leading to *puberphonia*, a medical condition wherein an older adolescent or adult male is unable to speak or sing using his changed voice (Kothandaraman & Thiagarajan, 2014). Several studies have concluded that choral teachers ought to foreground the study of vocal technique, using repertoire as practice material (e.g., Gebhardt, 2016; Simpson, 2013).

Researchers have found that once boys are enrolled in choir, they are unlikely to withdraw because of the voice change alone (Fisher, 2014), though they occasionally find themselves assigned to an inaccurate voice part, such as a baritone who is assigned to the tenor part or vice versa (Nguyen, 2015). Still, once boys value themselves as singers and are committed to the art of singing as a normal and normative activity for males, they find ways to resist and subvert societal norms traditionally associated with male singing (Beynon & Heywood, 2014). Other researchers have explored the singing identities of adolescent males in relation to instruction about vocal improvisation (Hirschorn, 2011), and within the general music (non-choral) classroom (Willow-Peterson, 2016).

3. Two pedagogical implications for teachers

This section describes two broad pedagogical implications of current research concerning the adolescent male changing voice. First, we will consider how vocal instruction can take place within the warm-up component of choral rehearsals. Then, we will consider how to begin vocal in-

struction with boys who are in the midst of change and/or are reluctant to sing at all. In any case, one principle remains constant: When we are able to relay our knowledge of the change process in terms they understand, boys know what to expect and can eagerly anticipate the next steps in their vocal development.

Adolescence encompasses the years during which each individual forms his/her adult personality, basic values, and attitudes — those things that determine one's behavior. If we want a person's behaviors to include participation in singing and choral music, we need to provide students with the knowledge and skills to sing successfully through adolescence and into adulthood. There is increasing evidence that adolescents who view themselves as unsuccessful singers will only rarely seek choral music experiences in adulthood. Adolescent boys undergo a more dramatic vocal maturation process than adolescent girls, and this may account for the declining number of adult males who sing in choirs worldwide — the so-called «missing males» phenomenon in choral music. Students view themselves as unsuccessful when they experience embarrassment while singing, are asked not to sing because of their changing voice, or are not given opportunities to sing in choirs. It is the student's perception of these issues that is most influential in future decisions about participation in musical activities.

Changing voices are affected by many easily overlooked musical issues. For example, boys, usually «tenors», who have been reading pitches from the treble staff for years are suddenly presented with

the conundrum of singing those pitches an octave lower than they are printed. «Baritones» may have to learn to sing in a completely new clef — the bass clef. Also, the standard warm-ups at the beginning of the rehearsal may need to be adapted for changing pitch levels.

4. Choral warm-ups as group voice lessons

The following are some key points about warming up choirs with changing voices. Warm-ups are singing, and the unison singing that won't work for repertoire won't work for warm-ups. The composite unison range of any adolescent school choir is approximately a sixth, from G to E in octaves. Even when beginning with a pitch that every student can sing, any Do-Mi-Sol vocalize will have left some students behind after the third ascending repetition.

At the most basic level, a choral warm-up is a sequence of activities focused on the coordination of vocal skills in preparation for the challenges of a specific rehearsal. Key components of a successful warm-up session for young adolescents include a logical sequence that remains consistent from day to day, an allowance for student choice and experimentation within the procedures, a clear pedagogical relationship between the tasks of the warm-up session and the repertoire to follow, and an allowance for a variety of student groupings, bodily movements, and physical locations within the warm-up session.

There are five sequential stages of an effective choral warm-up session. Begin-

ning with relaxation, teachers should use imagery encountered during daily activities such as the weather, getting ready for school, sporting events, etc. Teachers might ask students to act out some actions that stem from these ideas, such as shivering, wiping sweat off of the brow, opening and closing an umbrella, and so forth. Carefully chosen physical activities will both relax the musculature of the students and gradually draw their focus toward following the directions of the teacher. These are essential for the effective functioning of a choral ensemble.

Following relaxation activities, students will be ready to focus on their alignment, or physical posture. Some choral conductors insist on strict posture for singing, but the extreme variations in adolescent bodies makes this impractical. Rather, focus each singer on his or her own optimal posture by drawing their attention toward areas of the body that are in or out of alignment. For example, «standing proudly like you've just won an Olympic medal» may achieve a better outcome than a set of rules and restrictions about correct posture.

The establishment of an optimal physical alignment will then make breathing easier. Choral conductors should always remember to have students exhale before inhalation. If they do not exhale first, an excess of air may accumulate in the lungs, resulting in a raised chest and shoulder position. Rather, use a motion such as an underhand softball toss where the toss is the exhalation and the wind-up is the inhalation. This motion also both relaxes the shoulder muscles and reinforces the concept of breathing low in the body.

There is one more step before the singing of vocal exercises begins. Students need to coordinate their breath flow with their vocal mechanism. This can begin by having students hum on a pitch of their own choosing. This will accommodate voices at all stages of change. From a pitch in the middle of the range, have students descend in pitch before ascending. This will gradually «invite» the breath and vocal folds to work together before the coordination necessary for singing specific pitches and rhythms.

Vocalizes can be finally be introduced as the final step. These vocalizes may not always be sung in unison when there are many different voice parts represented by the students. Look for ways that students can achieve the intended goals even though they don't sing on the same pitch. One approach is to have students sing a national song or folksong starting on a pitch of their choice. The result may sound like cacophony, but it's also a challenge for students to maintain their own part while others are singing something similar but not identical. For all sequences of vocalizes, it is wise to gradually move toward higher pitches, to gradually sing at louder volumes, to gradually increase the speed of singing (especially when there are leaps and skips in the exercise), and to end with a calming vocalize that relaxes the voice into the lower range.

Some choral teachers find it helpful to repeat a vocalize when they get to the moment in rehearsal where that vocalize would help students with a musical passage in the repertoire. This will help students understand the relationship between the vocal techniques experienced in

the warm-up process and the technique used to sing passages in their repertoire. The choral warm-up sequence presents an opportunity for teachers to teach skills and present solutions to problems that will arise as students learn their repertoire. In other words, the warm-up process offers an opportunity to *prepare* for the rehearsal to follow.

5. Approaching vocal technique with adolescent boys

The vocal challenges of adolescent boys with changing voices are well documented. We know the stages of male vocal development, the singing ranges that accompany those stages, and much of the sociology and psychology that influences the likelihood that a boy will continue singing during this period (e.g. Cooksey, 2000a, 2000b; Freer, 2016). We often don't know how to gain the trust of boys who are reluctant to sing during their voice change (Hollien, 2012; Thurman, 2012).

Research tells us that adolescent boys crave control (Freer, 2011, 2012). They seek to control their voices while singing just as they are fascinated by the physical control that results from the developing musculature throughout their bodies (Freer & Elorriaga, 2013; Freer & Tan, 2014). After all, singing is a physical, athletic activity that draws upon muscular coordination and its related bodily sensations. We often begin our work with adolescent male singers by focusing on matching pitch and identifying vocal range and tessitura. This is not always optimal, and it is frequently futile and frustrating for both singer and teacher.

We must redefine our work with these boys away from an emphasis on pitch, repertoire, and performance. Instead, we can embrace boys' need for physical control by orienting our instruction toward vocal technique. When boys are able to confidently meet the musical challenges presented to them (i.e., sing the repertoire), they are more likely to continue singing because they view themselves as able to exert a measure of physical control over their rapidly developing musculatures (Fuchs, Meuret, Theil, Täschner, Dietz, & Gelbrich, 2009). Once they have experienced success in singing, boys feel more comfortable singing in choral ensembles and public performances. Jackie Wiggins has written about the need for music teachers to find «doorways in» where students seamlessly pass from one room (what they know) to the next (what they need to know). Wiggins states that «doorways in» help teachers «create lessons that will maximize student understanding of the music and of the ways in which music operates» (2009, pp. 70-71). Randall Allsup (2003) has drawn upon the arts education philosophy of Maxine Greene as he has similarly written of our need to create «opening spaces». These metaphorical spaces provide opportunities wherein «students and teachers are free to define and redefine who they are, where students can come together to speak (or perform, or sing) about a common world» (p. 165).

How, then, do we begin the process of teaching vocal technique to boys? Much of the professional literature emphasizes a pitch-related approach. Instead, the «doorway in» often lies in the precursor to

phonation itself: breath control. The word «control» is key here, since singers can control the processes of exhalation and inhalation. A quick Internet search reveals that the term «breath control» is broadly used throughout the professional literature in a wide array of settings and contexts. While it is common in our specific discipline of vocal-choral music to instead use the phrase «breath management», management implies control. If control is what boys seek, then let's give them a sense of control over the respiratory process that is the foundation for all genres and styles of singing. We need to shift from thinking of ourselves as choral music teacher-conductors toward thinking of ourselves as singing teachers who use choral literature to help students practice and refine the vocal techniques they have learned. Yes, it's a bit like a game of semantics, shifting subtly from «choral music teacher» to «group voice teacher». But, the shift is completely aligned with how adolescent boys learn and build positive images of who they'd like to become in the future.

There are many reasons for beginning with a focus on breath; five of them are listed here. They are equally relevant for male and female singers. The point is that breath control is the logical place to begin the exploration of vocal technique for boys with changing voices — rather than beginning with pitch matching. Female singers obviously need to breathe, too, and these reasons are equally true for them.

First, the vital capacity of the lungs — the maximum amount of air that can be expelled — increases concurrently with the adolescent boy's adolescent voice

change. Expelling the air begins with a contraction of the abdominal muscles. Instead of asking students to «exhale» or «breathe out», we can more specifically ask students to «contract your abdominal muscles». We can lead students to notice how much air they can expel. This is often a surprise to them, and we can tie the physical sensation to the concept of sustained breath flow for musical phrasing.

Second, the rate at which air is expelled is controlled by the rate at which the abdominal muscles are contracted; this has a direct effect on dynamics. Instead of exhorting students to «sing more loudly» or asking for a decrescendo, we can ask them to vary the speed of the airflow by varying how they contract their abdominal muscles as they exhale. Players of woodwind and brass instruments learn these techniques early in their training, and many of the boys in our vocal/choral music classes will be familiar with the principles.

Third, we know that inhalation follows exhalation. The process of exhalation creates a vacuum in the lungs. Inhalation is a response to that vacuum. Drawing students' awareness to breath control is easiest when they are asked to notice something that they are already doing. So, focus on inhalation after exhalation rather than asking students to «take a deep breath» without first asking for a conscious exhalation. Students will be able to notice how their abdominal muscles expand as they inhale and that the inhalation process can be slow or rapid. This approach achieves the intended goal of singing «from your diaphragm» but is more immediately effective since the ab-

dominal musculature can be voluntarily controlled and diaphragmatic control is involuntary.

Fourth, a sustained and controlled airflow during exhalation is necessary for efficient phonation. The edges of the vocal folds are drawn together during exhalation to produce a pitched singing sound. The more that adolescent boys can create a steady airflow through conscious control of their abdominal musculature, the more that they will increase the opportunity for easy phonation on the pitches they intend to sing. The length and, to a lesser degree, the thickness of the vocal folds change during adolescent male development. Vocal-choral teachers can build on students' awareness of airflow during exhalation to begin discussions of phonation, changes to the vocal folds, and the resultant changes to singing pitch during adolescent development.

Finally, concepts of vowel shape, consonant production and pharyngeal space become more tangible if singers think of how airflow interacts with the articulatory structures of the mouth (tongue, teeth, soft palate, etc.). What begins as airflow into the body during inhalation is transformed into sound waves during exhalation/phonation. Still, air passes outward through the pharynx and oral cavity during singing, and vocal-choral teachers can speak about «shaping or interrupting the airflow» as a way to enable understandings of vowels, consonants, and resonance.

Teaching vocal technique to adolescent boys in the midst of voice change may seem like an oxymoron. How is it

possible to teach principles of technique when the voice is changing, sometimes in seemingly unpredictable ways? Breath control is perhaps the most reliably stable component of vocal production during the adolescent vocal development. Breath control is exclusive of pitch, vocal register, timbre, and music reading skills. Breath control is relatively silent, allowing boys to experiment on a component of vocal technique without risk of embarrassment or failure. When boys are made aware of the muscular activity behind exhalation and inhalation, they can experience an immediate change of sensation and perception that makes the un-tactile process of singing seem more tangible.

Moreover, a focus on breath control with adolescent male singers affords teachers and students a common vocabulary about musical concepts and vocal skills. It allows for specific conversation about a large percentage of the body's muscular/skeletal system. These conversations can begin to explore the relationship between physical movements both small (abdominal contraction) and large (swinging of arms, etc.) and their effects on vocal production. Such conversations can lead to student understandings about the connection between a conductor's gestures and the resulting singer response.

Ultimately, though, the goal is one that the teacher-conductors of young adolescent boys will not see. The goal is for these boys to be singing — perhaps in choirs — as they mature through high school, into adulthood, and into their later years. Our goal must be to provide adolescent boys with the musical confidence and vocal skills to sing whenever and wherever they

choose. Focusing on breath is a starting point in the conversation, a «doorway in» to the application of vocal technique that will endure across the years.

6. The need for research-informed pedagogy

A popular slogan among many music educators since the early twentieth century has been «Music for every child and every child for music» (Heidingsfelder, 2014). But, while classroom music and instrumental ensemble opportunities have frequently been extended to every child, there has been a noticeable problem in choral music education — a lack of boys singing in choral ensembles. There are a number of reasons for this, but common among them has been uncertainty about how to work with the adolescent changing voice. In many cases, music teachers have been concerned that they would somehow harm the adolescent voice by unintentionally instructing students to do something that caused injury. Since many music teachers don't feel confident in their knowledge of vocal pedagogy, two approaches have been most common: 1) simply tell boys that this period will pass and offer no special instruction, or 2) entirely omit boys with changing voices from adolescent choral ensembles.

Neither of these options is acceptable, especially in light of our desire to provide musical opportunities for every child. A teacher's knowledge of how a boy singer progresses from his child voice through his adolescent voice and toward his mature adult voice can provide the foundation for musical experiences that are enjoyable

from aesthetic, artistic, intellectual, and social perspectives. We want students to gain the knowledge, skill and experience that will enable them to sing in vocal and choral music activities throughout their lives. We can help ensure that these happen through the ways we adapt to the changing voices and changing needs of our adolescent boys, build toward the future musical experiences they may encounter, and challenge them to achieve success with each step of the process. Doing so will help us assure that the young musicians of today will become the adult musicians of tomorrow.

7. Choral education with adolescents in Spain

A review of recent Spanish research literature (2006-2016) reveals the existence of a main line of research (Elorriaga, 2010; Elorriaga, 2011; Elorriaga, 2011; Freer & Elorriaga 2013) that provides objective evidence of the limited role of adolescent choral education in Spain. Though there are several articles on choral singing for children and young people (Elizasu Lasa, 2005; Hurtado Llopis, 2011; Perez-Aldeguer, 2014; Sotelo, 2009), choral singing with adolescents lacks a category of its own. Traditionally, in the different regions of Spain, the main pedagogical concerns have involved the formation of youthful choirs of girls, or the integration of male adolescents within children's and/or youth choirs. Although in some countries, as in the USA (for instance) where the American Choral Directors Association has two distinct categories to clearly differentiate a mixed chorus of adolescents from a youth choir, no major

Spanish choral association has such a distinction. The lack of adolescent-specific emphasis continues in festivals and contests throughout the country. On the other hand, it is well known that the great majority of so-called «youth choirs» have a minority of their members who are adolescents aged 12 to 14. Moreover, it is unclear how choirs for these singers should be organized, whether in schools or in community-based ensembles. Spanish adolescents do not usually sing in adolescent choirs with singers of the same age and with their same vocal characteristics. Usually they have no choice but to join choirs with older or younger singers.

8. The male teen singer in the context of school music education in Spain

It is important to emphasize that the way to get adolescents to explore and develop their vocal possibilities is through the promotion of basic vocal skills during puberty. Students already sing (or croon) their favorite songs at home. School-based instruction should be about learning to sing well, developing knowledge about the voice and vocal technique, and the varied possibilities for singing throughout the lifespan. The development of these meta-cognitive skills is fundamental for choral education with adolescents.

This is a relatively easy goal to achieve if students have already received a previous choral education during their childhood, which can obviously be complemented with school instrumental practice (Ferrer Miquel, 2009). Unfortunately, in countless primary schools this is not the

case. One possible reason is that many music instructors, paradoxically, do not use their voices as models and feel insecure when teaching and rehearsing with their students. Many teachers of primary music have knowledge of the curricular aspects of what should be taught, but they lack training in the pedagogy of vocal technique (Alessandroni & Etcheverry, 2012).

This is important because male adolescents who lack previous vocal experience usually present poor vocal output, do not know how to sing down, or are reluctant to attempt singing on pitches beyond those in the range of the spoken voice. These students need to perform short, ascending, vocal exercises, starting from pitches close to the spoken voice range, that stimulate the emission of a sustained air flow, accompanied by breathing exercises that strengthen the conscious control of the abdominal musculature. In addition, sometimes these students present an extremely low and narrow range which can lead to classifying them erroneously as basses, when they simply sing low because of their lack of vocal technique. Although this provisional classification might be valid to make them participate and sing, later it will be necessary to reconsider it while they are extending their vocal range. In adolescence, in general, no categorization should be taken as definitive.

Precisely because of this circumstance, from a methodological point of view, it must be taken into account that the goals that can be achieved should be based on the awareness of each student about the positive qualities of his voice. In fact,

many of them choose to sing in a school choir precisely because they already have a positive view of their vocal instrument (Ferrer, Tesouro i Cid, & Puiggalí, 2015). But for those who do not yet possess it, it is necessary to remember that this involves a process of self-learning and self-listening. In reality, it is the pupil who must correct himself, as long as he knows the reason and how to do it.

Only then we may lead students on a pathway toward singing in future stages of their lives. The work of the teacher, the choral educator, is to provide tools to make this process possible, and to manage it intelligently, taking into account the vocal needs of each student: what each young singer needs to learn in each specific moment of the process. It is very important that each boy can verify, on this basis, that some progress is made — real and, above all, measurable progress — that can be verified by comparison in relation to an earlier point in the past.

This fact is crucial in 7th and 8th grades (1st and 2nd of Compulsory Secondary Education in Spain), the time when students build a vocal identity that will be crucial for their entire lives. The perception of the voice is influenced by many factors related to self-efficacy and self-esteem. If a teenager has generalized low self-perceptions, it is very possible that he has low vocal self-perceptions, as well. If the adolescent has low self-esteem, he might have also a very distorted view of himself, which will psychologically hamper his ability to accurately evaluate his musical capabilities. It is for this reason that the implementation of a series of vocal exercises is not usually enough for

this group of students, who also require an intervention in the affective plane. These young men need specific knowledge about their developing voices so that they can come to recognize possibilities for present and future singing activity. The linking of the exercises with certain emotions, as well as the dramatization of them, will help these students in a very special way. Another interesting practice for this group of students is to listen to their own voice through the recording of a short melody. These young men will be able to use their growing vocal awareness to discover the singing opportunities open to them.

9. Didactics of choral singing for Spanish high school

The choral activities designed for adolescent group instruction should fulfill the following characteristics:

- They must have objectives specifically designed for the development of the adolescent male voice.
- They must be sequentially instructed about the different aspects of vocal technique: breathing and posture, phonation, resonance, diction and expressiveness. This is also true for the repertoire, which should progress from simple to more complex.
- They must be able to count on an adequate vocal modeling, provided by the choral educator. Boys are more attracted to singing when they can hear a quality vocal model, which does not have to be contributed by someone of the same genre, but by someone who takes into account the way they sing

and perceive their voices, more based on the sonorous presence than on the acoustic beauty (Elorriaga, 2011). In addition, this model is best accepted when it is good enough but at the same time close. The choral educators who are training singers should be able to modulate their voice, in the first instance, towards a more popular model and close to adolescents, and on the contrary, choral educators who lack vocal training should be able to acquire a minimum of vocal skills that can show them in a vocally attractive position for their students.

– Choral teachers should be able to instruct and evaluate their choir through interactive techniques that encourage the sense of community within the ensemble. This is fundamental for developing metacognitive skills in young adolescents. It is not enough for the choral educator to know what needs to be improved. Students should be aware of this as well. For this purpose, it is important to work with recordings, mental maps for each piece (delimiting the objectives and their achievement in a timeline), performing partial group castings (where some sing and others act as judges), etc.

– Repertoire must be sufficiently varied, both in form (methodology) and in content. In this sense, repertoire must meet the needs of the students, who must be able to participate in the selection of repertoire and other group singing activities. It is especially important to include choral improvisation and/or interpretation of open-ended vocal pieces where students can test

and contribute their creative ideas, as well as to make formal and interpretative decisions.

— Boys should be able to learn and perform both in single-sex grouping and in groups that include girls.

— The repertoire must be meaningful in the context of the social and personal life of the students. The lyrics of choral repertoire often tell stories of some kind. Students should be able to comment on the stories with their peers, deduce and discover the lyrics' meaning and seek relationships between the repertoire and their own lives. This will also help students sing with expressiveness appropriate to each piece.

— The repertoire should be able to encompass both the music students know (choral arrangements on modern or popular themes) as well as repertoire they do not know (choral pieces from the repertoire of common and traditional use). The first type will help students to connect choral music with «their music», while the second type will bring them the possibility of expanding their musical experience and therefore their aesthetic awareness. For this reason it is fundamental to include both types of choral music in the curriculum so that students can evolve musically. Doing so will establish bridges and connections between different styles, focusing on the content of music, rather than on its origin. In this way students will learn to value the quality of music based on its choral complexity, regardless of the musical style to which each one belongs.

Choral repertoire contains the elements of vocal curriculum, but it is the teacher's responsibility to present these elements in the right way and at the right time for their particular students. Analytical exercises or complementary information can be linked to the repertoire that students are experiencing in the choir.

Students should participate in singing activities that include a wide range of different groupings, whether in pairs, in small or large groups. It is important that the space be organized differently for each grouping. Each though incorporate some corporal activity since physical inactivity inhibits the necessary bodily functions related to singing. In addition, it is important that not all students sing at the same time, but that they have different opportunities to listen and evaluate others. Most of the time pupils accurately assess specific achievements of their peers. This leads to a clearer awareness of the pursued goal.

Lastly, it is necessary that while some activities include the whole group, not all students will always share the same objectives. In this sense it is essential to learn to work in «two directions» simultaneously. Rehearsing with a choral group does not mean that all are doing the same at all times, but all are engaged, at all times, in complementary objectives. In the same way that music is polyphonic, the instruction should also be so. Choral instruction with adolescents must be, simultaneously, multi-activity and multi-task while maintaining curricular goals and musical progress. In this sense, the planning of lessons should be consistent with this principle, allowing for boys and

girls to work both separately and together, even when in the same classroom and following the same schedule.

10. Implementation of a specific choral didactic model for adolescents in Spanish schools

Possible interventions and actions to be considered in order to improve choral practice in relation to the male voice in adolescence in schools and institutes could be the following:

1. To promote a curricular reform based on the practice of music, understanding the subject of music as a discipline, and not as a substitute of the humanities, which would imply a substantial change of the materials, using more the concept of repertory fiches and musical activities, rather than a textbook. These records should contain a variety of practical approaches to vocal technique and choral activities of the classroom («a classroom group: a choir»), and be organized from the music most known by the students, towards the most unknown, from the simplest repertoire to the most complex. Instruction should progress sequentially from the most elemental vocal skills to the most demanding. Each new element should be related to previous knowledge, and all elements should be taught through experience. This way, the students will be able to acquire a specific musical lexicon that they can understand and organize by categories. This will serve as a means to developing metacognitive skills related to their musical learning.

2. From the above, it is fundamental to promote the evaluation of the practical contents of the subject of music in both primary and secondary, facilitating the creation of vocal groupings that arise naturally from the daily vocal practice of the classroom. These groupings can be organized through extracurricular activities, or through optional subjects integrated in the curriculum (choral singing), or both.

3. To promote the creation of choirs in the faculties of education, which are necessary components in the training of teachers for working in secondary schools. In some centers of higher education in music education is already taking into account the choral formation of their students, as in the area of didactics of musical expression of the University of the Balearic Islands (Gelabert Gual, 2016). However, there are still important training gaps in this area (Chaves-Cordero & Escamilla-Fonseca, 2017).

4. To promote the creation of choirs of teachers of primary and secondary music in each region, as well as training activities in choral education for teachers of active music.

5. To define clearly the types of practice and existing choral groups, with new attention to choral education in adolescence as distinct from choral singing in youth and inter-generational choirs.

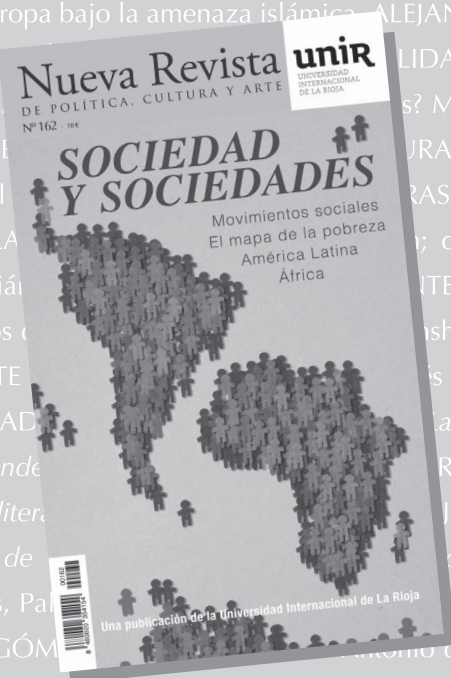
6. To promote a common research line in the teaching of choral singing in puberty and adolescence, open to the participation of different professionals and researchers.

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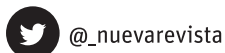
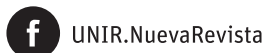
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References

- Allsup, R. E. (2003). Praxis and the possible: Thoughts on the writings of Maxine Greene and Paulo Freire. *Philosophy of Music Education Review*, 52 (2), 157-169.
- Alessandroni, N. & Etcheverry, E. (2012). Dirección coral y técnica vocal: ¿un diálogo posible? Reflexiones metodológicas para un trabajo vocal eficiente. *European Review of Artistic Studies*, 3 (2), 1-11.
- Beynon, C. & Heywood, A. (2010). Making their voices heard: A social constructivist study of youth and men who choose to sing. *Multi-Disciplinary Research in the Arts: e-Journal*, 2 (1).
- Campbell, J. C. (2016). *Attitudinal differences of choral music teachers in regards to vocal change type*. Unpublished doctoral dissertation. Kentucky University.
- Cooksey, J. (2000a). Male adolescent transforming voices: Voice classification, voice skill development, and music literature selection. In L. Thurman & G. Welch (Eds.), *Bodymind & Voice: Foundations of Voice Education* (pp. 821-841). Iowa City, IA: National Center for Voice and Speech.
- Cooksey, J. (2000b). Voice transformation in male adolescents. In L. Thurman & G. Welch, (Eds.), *Bodymind & Voice: Foundations of Voice Education* (pp. 718-738). Iowa City, IA: National Center for Voice and Speech.
- Cooksey, J. (1989). Understanding male-adolescent voice maturation: Some significant contributions by European and American researchers. In G. Paine, G. (Ed.), *Five Centuries of Choral Music: Essays in Honor of Howard Swan* (pp. 75-92). Hillsdale, NY: Pendragon Press.
- Cooper, I. & Kuersteiner, K. O. (1965). *Teaching junior high school music*. Boston, MA: Allyn and Bacon.
- Chaves-Cordero, C. F. & Escamilla-Fonseca, C. (2017). La formación académica del director coral para el desarrollo de coros infantiles. Situación actual en Costa Rica y España. *Revista Electrónica de Educare*, 21 (1), 1-23.
- Demorest, S. M. & Clements, A. (2007). Factors influencing the pitch-matching of junior high boys. *Journal of Research in Music Education*, 55 (3), 190-203.
- Elorriaga, A. (2010). El coro de adolescentes en un instituto de educación secundaria: un estudio de fonación. *Revista Electrónica Complutense de Investigación en Educación Musical* 7, (1), 1-20.
- Elorriaga, A. (2011). La construcción de la identidad masculina en la adolescencia a través del canto coral. In J. H. Llopis (Ed.), *Contextos Corales*. Valencia: Germania.
- Elorriaga, A. (2011). La didáctica del canto colectivo en la adolescencia: Un estudio de intervención en un IES. *Lista Electrónica Europea de Música en la Educación*, 28, 37-77.
- Elizasu Lasa, I. (2005). Situación actual del mundo coral infantil en el País Vasco. *Musiker, Cuadernos de Música*, 14, 35-46.
- Hurtado Llopis, J. (2011). Hacer música para el desarrollo personal y social. *Eufonía: Didáctica de la Música*, 51, 24-33.
- Ferrer, M. (2009). El canto coral y las orquestas infantiles, una educación en valores. *Eufonía: Didáctica de la Música*, 45, 30-38.
- Ferrer, R., Tesouro i Cid, M., & Puiggalí, J. (2015). Las principales motivaciones para cantar en un coro infantil o juvenil según la opinión de algunos directores. *Eufonía: Didáctica de la Música*, 64, 66-72.
- Fisher, R. A. (2014). The impacts of the voice change, grade level, and experience on the singing self-efficacy of emerging adolescent males. *Journal of Research in Music Education*, 62 (3), 277-290.
- Freer, P. K. (2016). The changing voices of male choristers: An enigma ... to them. *Music Education Research*, 18 (1), 74-90.

- Freer, P. K. (2015). Perspectives of European boys about their voice change and school choral singing: Developing the possible selves of adolescent male singers. *British Journal of Music Education*, 32 (1), 87-106.
- Freer, P. K. & Elorriaga, A. (2013). La muda de la voz en los varones adolescentes: Implicaciones para el canto y la música coral escolar. *Revista Internacional de Educación Musical*, 1 (1), 14-21
- Freer, P. K. & Tan, L. (2014). The self-perceptions of young men as choral singers in Singaporean secondary schools. *Research Studies in Music Education*, 36 (2), 165-178.
- Freer, P. K. (2012). The successful transition and retention of boys from middle school to high school choral music. *Choral Journal*, 52 (10), 8-17.
- Freer, P. K. (2011). Weight lifting, singing, and adolescent boys. *Choral Journal*, 51(4), 32-41.
- Freer, P. K. (2008). Boys' changing voices in the first century of MENC journals. *Music Educators Journal*, 95 (1), 41-47.
- Fuchs, M., Meuret, S., Theil, S., Täschner, R., Dietz, A., & Gelbrich, G. (2009). Influence of singing activity, age, and sex on voice performance parameters, on subjects' perception and use of their voice in childhood and adolescence. *Journal of Voice*, 23 (2), 182-189.
- Gebhardt, R. M. (2016). *The adolescent singing voice in the 21st Century: Vocal health and pedagogy promoting vocal health*. Unpublished doctoral dissertation. Ohio Central State University.
- Gelabert Gual, L. (2016). Música Viva: un proyecto integral a partir del canto colectivo. *Dedica. Revista de Educação e Humanidades*, 9, 247-261
- Graf, G. G. (2016). *Shared insights: A survey of postsecondary and adult men's chorus directors*. Unpublished doctoral dissertation. Maryland University.
- Heidingsfelder, L. (2014). The slogan of the century: «Music for every child; Every child for music». *Music Educators Journal*, 100 (4), 47-51.
- Hendley, J. A. & Persellin, D. C. (1996). How the lower adult male voice and the male falsetto voice affect children's vocal accuracy. *Update: Applications of Research in Music Education*, 14 (2), 9-14.
- Hirschorn, D. N. (2011). *Vocal improvisation and the development of musical self-efficacy in adolescent choral musicians*. Unpublished doctoral dissertation. Georgia State University.
- Hollien, H. (2012). On pubescent voice change in males. *Journal of Voice*, 26 (2), 29-40.
- Kothandaraman, S. & Thiagarajan, B. (2014). Mutational falsetto: A panoramic consideration. *Otolaryngology Online Journal*, 4 (1).
- Mckenzie, D. (1956). *Training the boy's changing voice*. New Brunswick, NJ: Rutgers. University Press.
- Nguyen, A. T. (2015). *How vocal classification affects young singers*. Unpublished doctoral dissertation. Portland University.
- Perez-Aldeguer, S. (2014). El canto coral, una mirada desde la educación musical. *Revista de Estudios Pedagógicos*, 15 (1), 389-404.
- Simpson, T. (2013). *Vocal technique and repertoire choice for middle school students*. Unpublished doctoral dissertation. Liberty University, USA.
- Sotelo, C. (2009). Les trobades de corals a secundària a Catalunya. *Guix: Elements d'acció educativa*, 360, 26-27.
- Stephens, E. G. (2012). *Formation and prediction of the singing perceptions of self-labeled singers and non-singers*. Unpublished doctoral dissertation. Miami University.
- Swanson, F. J. (1977). *The male changing voice ages eight to eighteen*. Cedar Rapids, IA: Laurance Press.

- Thurman, L. (2012). Boys' changing voices: What do we know now? *Choral Journal*, 52 (9), 8-21.
- Warzecha, M. (2013). Boys' perceptions of singing: A review of the literature. *Update: Applications of Research in Music Education*, 32 (1), 43-51.
- Wicks-Rudolph, M. (2013). *Choral directors' knowledge of biological and sociological sex differences in the secondary choral classroom*. Unpublished doctoral dissertation. Auburn University, USA.
- Wiggins, J. (2003). *Teaching for musical understanding*. New York, NY: McGraw Hill.
- Willis, E. C. & Kenny, D. T. (2008). Relationship between weight, speaking fundamental frequency, and the appearance of phonational gaps in the adolescent male changing voice. *Journal of Voice*, 22 (4), 451-471.
- Willow-Peterson, K. (2016). *Identity development among adolescent males enrolled in a middle school general music program*. Unpublished doctoral dissertation. Boston University.

Technology at the service of music education

Tecnología al servicio de la educación musical

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Abstract:

Technology is part of our everyday lives, whether we like it or not. Learning to live with it is not just a requirement but is also necessary if we are to avoid succumbing to a new form of illiteracy: technological illiteracy. As teachers we must contribute through continuous training to the computer literacy that contemporary society demands of us in the day-to-day performance of our activities. In the following pages, we present and analyse some of the tools available for use in music education, applying criteria of quality, stability, and, above all, freedom of use.

Keywords: ICT, musical education, music software, new technologies, free software, education.

Resumen:

Las tecnologías, queramos o no, forman parte de nuestra vida cotidiana. Aprender a convivir con ellas no solo es una obligación, sino una necesidad para no caer en un nuevo analfabetismo: el tecnológico. Los docentes debemos contribuir con nuestra formación permanente a la alfabetización digital que la sociedad actual impone en el desarrollo diario de nuestras actividades. En las siguientes páginas presentaremos y analizaremos algunas de las herramientas disponibles para su utilización en la educación musical, desde criterios de calidad, estabilidad y, sobre todo, libertad en su utilización.

Palabras clave: TIC, educación musical, *software* musical, *software* libre, nuevas tecnologías, formación.

1. Introduction

When discussing the use of Information and Communication Technologies (ICT) in music education, in broad terms, the first issue is how to define them. What resources are we discussing when we discuss these technologies?

At certain points in the history of education, coloured chalk, photocopiers, whiteboards, tape and CD players, televisions, video, etc. might have been seen as «new technologies». However, the most important medium in current society is undoubtedly the computer, allowing

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collaborative use of computer applications specific to the field of music and sharing work on the internet.

Therefore, new technologies in music education are currently defined as those using internet-connected computers as the focus of the various on-line and off-line possibilities they offer: playing audio and video, presentations, simulations, and searching for information.

While not all specific music technology might be integrated into ICT resources, we now face a degree of globalisation that, in our opinion, makes this separation difficult and unnecessary. Resources such as microphones and speakers are currently part of the hardware of the great majority of computer resources, and the internet provides online tools and software resources that make it possible to create activities and musical resources with applications that previously had to be installed on the computers as well as sharing their own resources on websites, blogs, etc.

Consequently, it is difficult to establish clear distinctions between the different technological elements that feature in music education experiences with ICT. On similar lines to Marqués (2011, pp. 17-35), in this article we include in the term ICT all musical technologies associated with computing, both hardware and software, as well as a wide range of technologies that enable the transformation of information, in particular the use of computers and computer programs to create, modify, store, administer, protect, and recover this information.

The presence of ICTs in music education, as in education in general, is initially dependent on two basic aspects: equipping schools and classrooms, and the teaching staff's training in and use of them.

This piece presents the tools teachers might use in the compulsory education centres which have basic ICT provision. Knowledge and in-depth use of them should be part of the digital training and skills of teachers specialising in music.

2. ICT resources in music

The emergence of and standardisation on MIDI technology and its language in the 1980s was a technological revolution in music. The development of it meant that we can now all use its potential in particular in our personal computers. It is just a few decades (1985) since Atari¹ launched the Commodore Amiga, a computer-games console that included Notator, a MIDI interface and software for music sequencing and score editing. Since then, technological development has made it possible for individuals to have their own small home recording studio at a cost that would once have been unimaginable, thus making it accessible to much of the population.

This development has meant that we can have sound sequencers-editors and sufficient technology to make recordings and mixes at our disposal, as well as technological resources for simulating performances by instrumental groups that previously were only possible live and in recording studios.

Numerous technological resources are available for musical activities, and new ones appear every day. We will, therefore, attempt to classify them, making an initial distinction between online, or Web 2.0, resources and off-line ones, in other words resources that can be used without an internet connection. Within this classification, a secondary classification will consider whether the resources are proprietary, and so the corresponding licences must be obtained to use them, or whether they are resources from the free software or open source movement, which can be shared and used freely.

Any attempt to list all of the available software related to music and its possible use in education would be extremely prolix, and so we will basically focus our attention on free-software resources available. The reasoning behind limiting the sample to resources from the free software field is, on the one hand, the need for resources in education that can be used without a significant investment by schools and students, and, on the other hand, the need for lessons on values and respect for other people's work: «intellectual property».

Authors like Adell and Bernabé (2007, p. 185) identify the following educational reasons for using free software in education, taken from the ideas of Richard Stallman:

Free software can be copied and redistributed at cost price. Educational authorities can provide all of their educational centres with software at a very low price and use the resources saved in other nec-

essary areas in education: more computers, teacher training, etc.

Education in values. Schools should promote the use of free software for the same reason they promote recycling: because it benefits us all.

Free software encourages students to learn how computers and software itself work. Future programmers start programming in their adolescence. By allowing access to the source code, free software helps enormously with their learning.

The mission of schools is to teach people to be cooperative, supportive, and critical citizens. These are the foundations of society. In computing, cooperation means, among other things, sharing, being able to make copies for all of their classmates or taking home the software used in class. And with proprietary software all of this is unlawful.

Finally, teaching students to use free software and participate in the community of software users/developers is a practical lesson in civics. It teaches students that the ideal is the model of public service and solidarity, not the profit-at-any-cost model of some corporations. All levels can and should use free software.

Among the tools we find for carrying out musical activities in education, we will pay particular attention to sequencers. Sequencers, whether audio or MIDI, offer broad possibilities for manipulating and creating music that are available to everyone, especially music teachers. These tools make it possible to generate musical ideas and turn them into sound with great versatility. Writing a musical

idea, motif or phrase, whether invented or transcribed from a piece by a composer, and instantly being able to listen to it with different timbres, tempos, and intensities is something that is only possible with the use of technology. This is an example of meaningful learning from individual or collective experimentation.

MIDI sequencers allow us to play anything from a simple melody to a symphony with all of its instruments, to write a song to sing in class, to be able to change its tonality with a few mouse clicks to adjust it to the tessitura of the class as a group, to prepare an accompaniment that acts as a harmonic support to singing, as well as an endless list of possibilities that we can discover with creativity and experience, all of this with limited resources.

Technology has also reduced costs to the extent that we can now have audio sequencers to record our musical activities inside and outside class and carry out postproduction work on the recording that was previously solely in the hands of the recording studios. YouTube is a clear example of how many musicians and artists have publicised their work through their home recordings with this type of tool, achieving professional recognition as artists and on many occasions finding a career opportunity in the world of music.

Sequencers are tools that make it possible to organise sound information, either MIDI or audio, on independent tracks, thus allowing manipulation of the information from each of them independently until the desired result is attained, finally

achieving a master audio track in stereo like any CD recording.

Having defined the limits of this analysis, we will now divide the tools we will consider into two categories: on-line resources and off-line resources.

2.1. Off-line music resources

This section considers music software resources that must be installed on the computer to be used. From the free code applications, we can find on the internet, the most important and stable are: Audacity², Ardour³, Denemo⁴, Muse-score⁵, Hydrogen⁶, LMMS⁷ (Linux Multi Media Studio), GNU Solfege⁸, and Phonascus⁹.

The Audacity and Ardour sequencers make it possible to create and manipulate audio files. These applications make it possible to record live musical activities for subsequent mixing in postproduction while also allowing the mixing and manipulation of ready-created audio files in WAV or MP3 formats.

The opportunity to manipulate the audio of a previously-created song or to sequence a new one by tracks with these tools makes it possible to record a song where each instrument is recorded individually with its panning in the stereo signal, create songs and structures based on loops, manipulate the frequencies of the sounds of the instruments (as long as they are sequenced on individual tracks), alter the tempo and the dynamics, or equalise each track to obtain the best result in the final mix.

FIGURE 1. Example of the Audacity desktop.

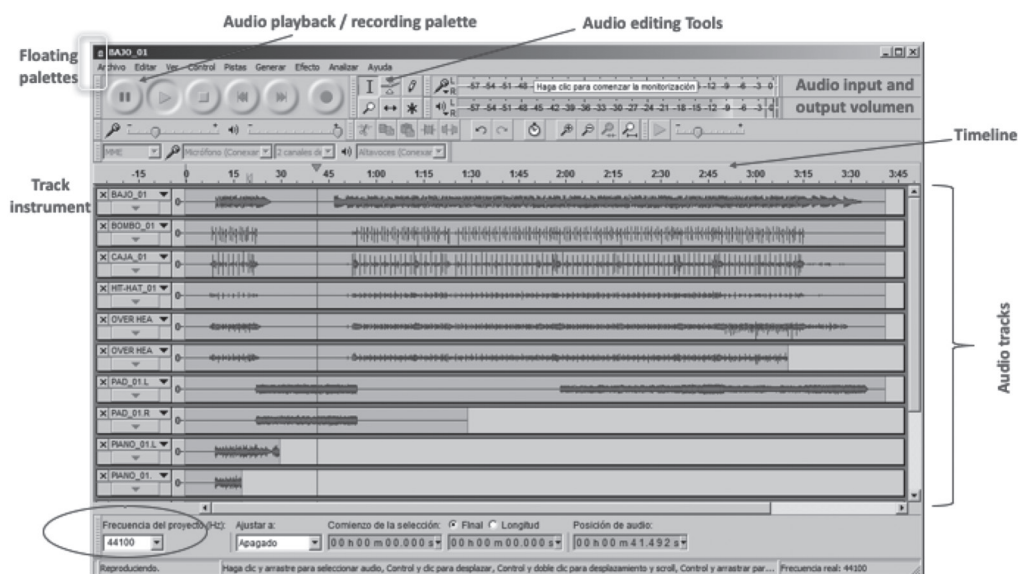


Figure 1 shows a generic example of the Audacity desktop: each instrument has a track for manipulating it, in some cases even recordings of the same instrument differentiated by its position in the stereo signal, right (R) or left (L); various graphics palettes are available for working with the recorded audio information; and there are floating palettes that can be placed anywhere on the desktop as the user prefers. Similarly, we can see the total duration of the audio for our recording on the timeline. We can zoom in on this gradually to see on-screen in more detail the part of the audio on which we want to work. At the bottom, we can see the quality of the audio with which we are working, 44,100 Hz. This is the sampling frequency established for the recording quality of a commercial CD.

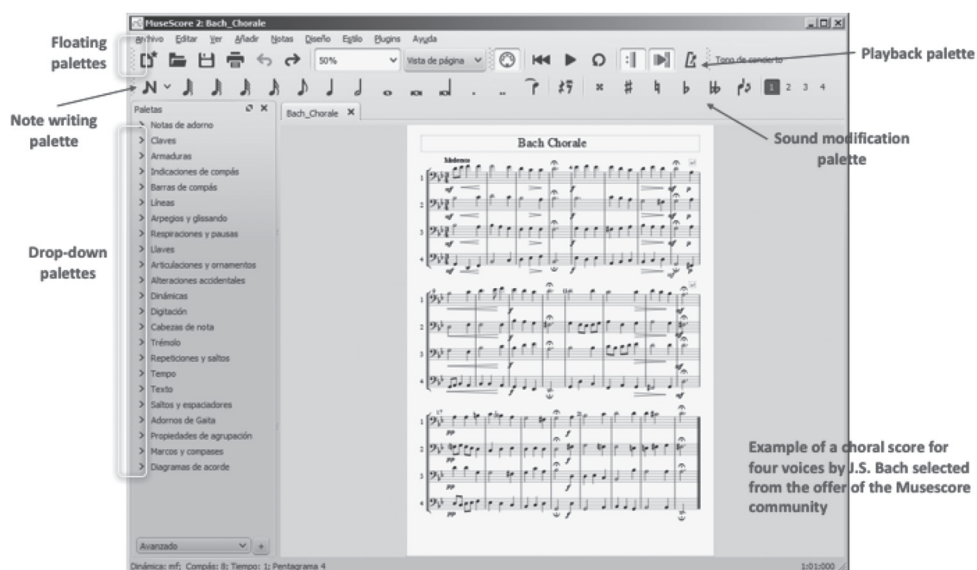
Audacity and Ardour are two applications which, despite being free software, have professional features for creating, editing, and publishing quality audio, albeit with some limitations compared to professional software. The most significant ones, at present, are that they cannot record more than one track at the same time and that effects to the recordings cannot be applied in real time and simultaneously to all of the tracks.

Denemo and Musescore are two MIDI sequencers with a blank sheet of staff paper as a desktop. These two applications amply cover the requirements for publishing and editing printed music. Within the professional sphere there are numerous applications for creating and then printing scores such as Final, Sibelius, Logic, and Cubase, but these have a

significant licensing cost. With these free applications, we can not only create quality scores but also ensure that the computer can perform them with the criteria we choose at each moment, as well as having the option of performing the same score with different instrumental groupings, according to the needs of the classroom experiences.

Musescore is very intuitive — much more so than Denemo — and gives excellent results in very little time, as with a little dedication the great potential in comparison to the paid programs of the same name of this application for preparing scores of any type can be uncovered.

FIGURE 2. Musescore desktop.



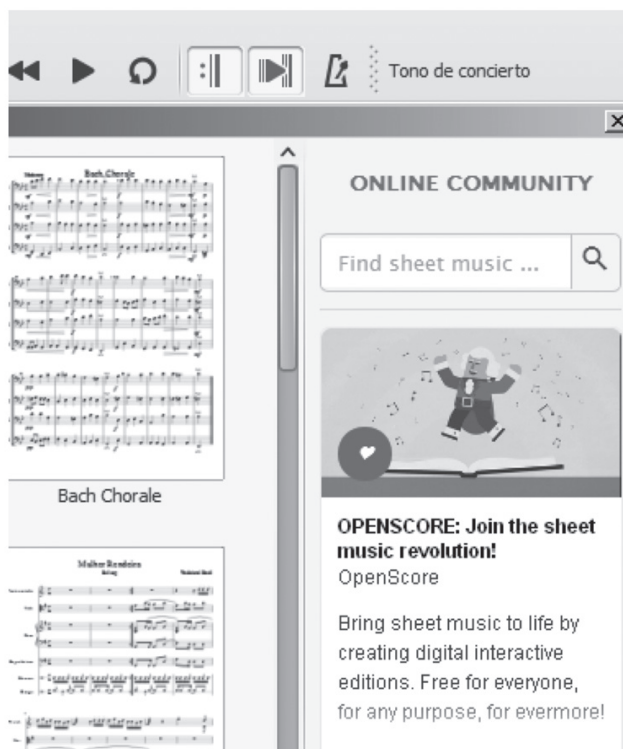
The example in Figure 2 clearly shows how almost all of the options necessary for making a score are visible and available in different palettes with just a few clicks.

Musescore also has a social network where users can share their work. Finding that someone has already written the score that you need for your class can save time in planning.

Musescore has recently launched an initiative called OpenScore with the aim of digitising the greatest possible number of musical copyright free works through Musescore.

Another feature this tool is developing is the possibility of playing PDF files and turning them into scores. This feature still needs more development, but it offers good results when the performance uses PDF files prepared by a sequencer.

FIGURE 3. Musescore online community.

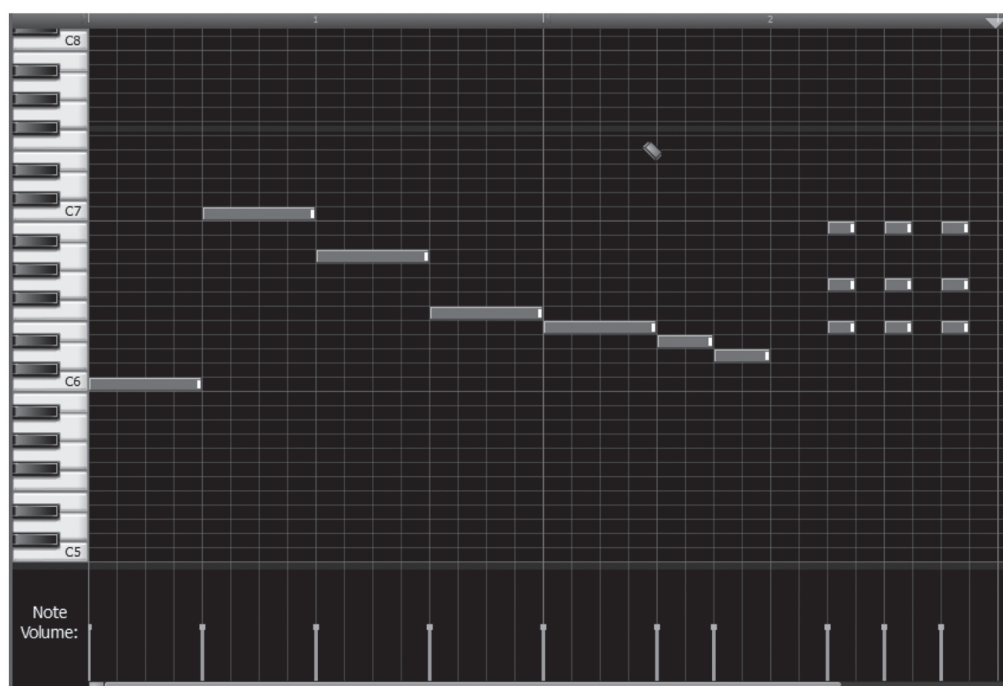


Musescore's features are very good compared with those of the proprietary version. If we had to criticise something, it would be the possibility of communicating with other sound sources and doing so simultaneously with all them. At present, linking the application to other peripherals, essentially sound modules, has been done using the JACK¹⁰ supplementary sound connection tool. This involves installing and configuring another program, something that is not always easy.

Hydrogen and LMMS are two applications that enable sequencing in MIDI language. By using them, we can experience

the creation of sequences under different graphic parameters than the ones discussed above. In this case, instead of writing notes and rests on a staff, the music is created and organised by marking the sounds graphically on a pattern editor according to the rhythm and pitch we want to create. The duration of the sounds is defined by the horizontal extension of the image and its tuning by its location on the vertical axis. This was how, until the option of writing on a score appeared, music was written on sequencers, allowing many people to access musical practice and composition with limited musical-theoretical knowledge.

FIGURE 4. LMMS 1.1.3 music writing window.



Hydrogen is essentially an application for creating and composing percussion rhythms by combining the different sounds of a drum set or other percussion instruments such as claves to accompany our creation, for example, a rap. LMMS offers many more options: as well as the possibility of creating combinations of rhythms and including sounds from tuned instruments, it makes it possible to delve into the area of the qualities of the sound, allowing us to modify the wave patterns of the original sounds, and reworking new sounds and timbres based on the original sound chosen. This is undoubtedly an application that can help us to develop the imagination and creativity of our students, but its use

has a steeper learning curve than Hydrogen and so it requires prior experience with this type of tools. This is something to consider when using it with the students.

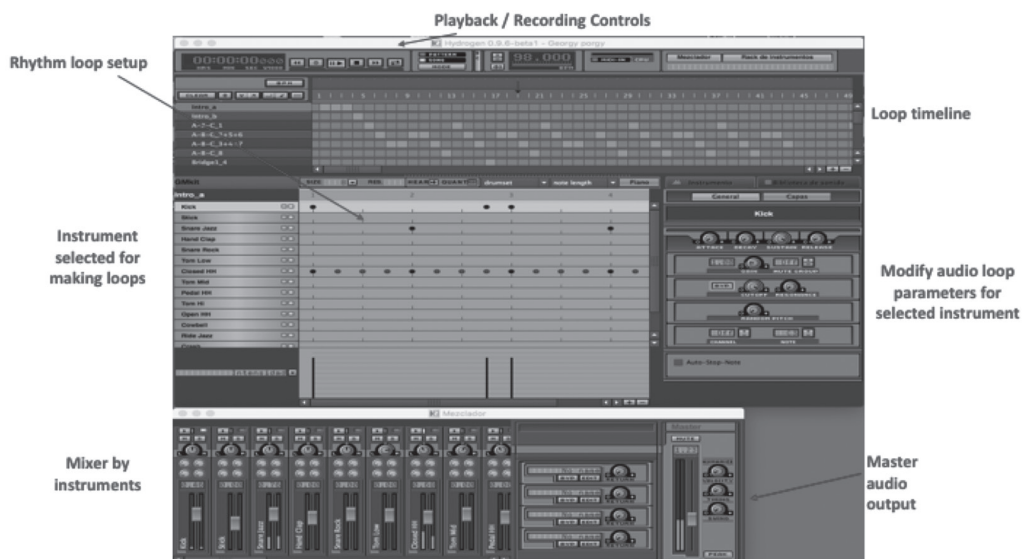
In Figure 5 the Hydrogen desktop shows a timeline at the top where we can set and order the different rhythm loops so that they sound at the desired moment in the sequence. Above the timeline are the resources for playing the created piece, and below the timeline there is a space for the rhythmic design of each loop.

As this image shows, the different beats or percussion instruments available for preparing the accompaniment

are shown on the left. In the centre, the beats in a loop are shown where the user can graphically place the intervention by each instrument, forming different polyrhythms on the timeline to repre-

sent the pulses that make up each loop. On the right, it shows the possibility of adjusting different audio parameters of the sound sample for the instrument used.

FIGURE 5. Hydrogen desktop.

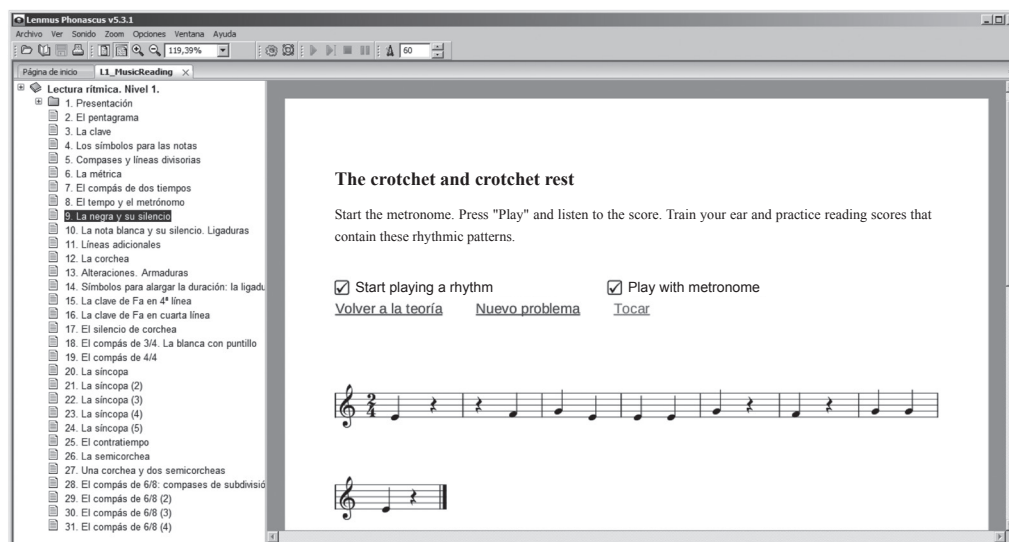


In another floating window, there is a virtual mixing desk for controlling the final mix of the rhythm created.

Finally, programs for training and learning musical language include GNU Solfège and Lenmus Phonascus. These two applications allow students to work independently and progressively on theory, rhythm, and musical ear, and depending on the exercises they receive immediate correction of the musical training proposals provided.

Lenmus Phonascus has a section for general exercises, two levels for rhythm reading, and a section dedicated to theory and harmony. As shown in Figure 6, the application displays the lessons for each instruction section and within each section it offers different training exercises. This may seem like a very basic application for musical training and education, but looking around it and using it is a pleasant surprise thanks to its potential application as a teaching resource with students of all levels and its possibilities for autonomous learning.

FIGURE 6. Lenmus lessons window.



2.2. Online music resources

As the previous section has shown, there are enough tools to be able to approach students' learning and our learning as teachers using ICT music resources in class. However, the internet's rapid movement towards the so-called Web 2.0¹¹ has made it possible to access similar tools in the «cloud»¹². Obviously in this case, the vital requirement is to be able to have a stable and permanent internet connection.

Among the online resources with a philosophy akin to free software there are applications that allow the use of resources similar to installed software. In this case they are applications that first appeared as free-use developments whose evolution and improvements mean that the developers offer various subscription levels, while keeping an open and free

offer of a large part of the application. These resources include: Noteflight¹³, Soundation¹⁴, Audiotools¹⁵, Incredibox¹⁶, and Music Theory Web¹⁷.

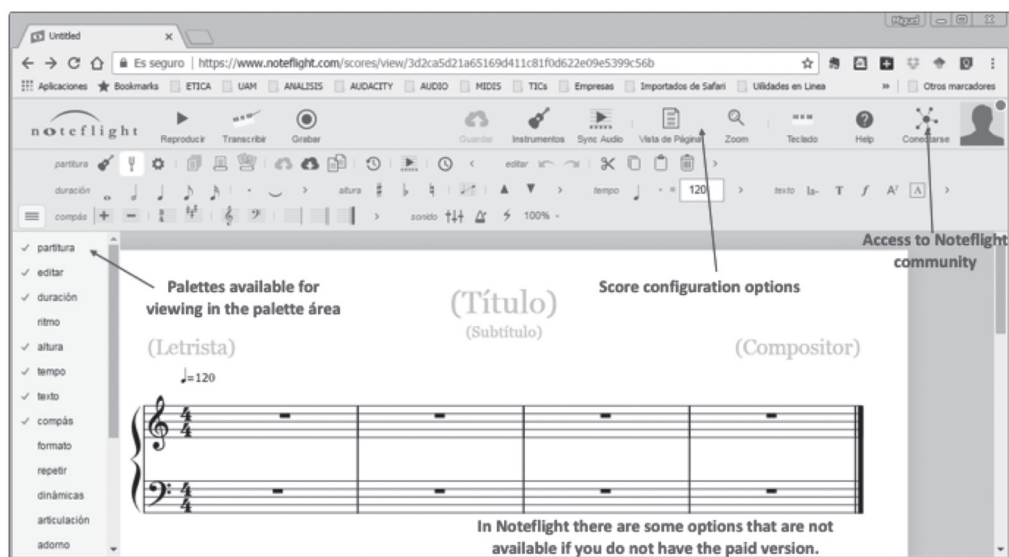
Noteflight is the free version of the Crescendo online sequencer. Although its features are limited compared with the paid version, it is a score editor that extensively covers the basic requirements for editing with various instruments and percussion.

As is normal in music editing programs, its control through contextual graphic palettes, as shown in Figure 7, makes it very easy and intuitive to use from the first moment. Despite being a reduced version, it allows MIDI and XML format files to be imported. This enables users to access the musical score that is saved in this format quickly.

Like Musescore, it has a community of users who share their works online and where we can upload and share our own works. Furthermore, they generate html codes to be able to show the scores on educational websites or blogs.

Noteflight is free and obviously has certain limitations that can only be overcome by subscribing to the paid version. These include the number of scores that can be generated and saved online.

FIGURE 7. Noteflight desktop.



Soundation and Audiotools are online audio sequencers. Soundation has a limited free-use option in which all of the sounds from the free library, virtual instruments, and audio effects can be used for composing, saving, and publishing; the only restriction is that if audio is recorded directly using the application or is imported, the completed project cannot be saved without the paid version.

Soundation is an application that allows the creation of songs through musical sequences using loops¹⁸ in MIDI or pre-recorded audio formats. In the free version, melodies can be created with virtual instruments and effects added to them. Having completed the composition, it can be saved in the application format and exported in audio format (WAV) to be shared or used in other audio applications.

FIGURE 8. Soundation desktop.

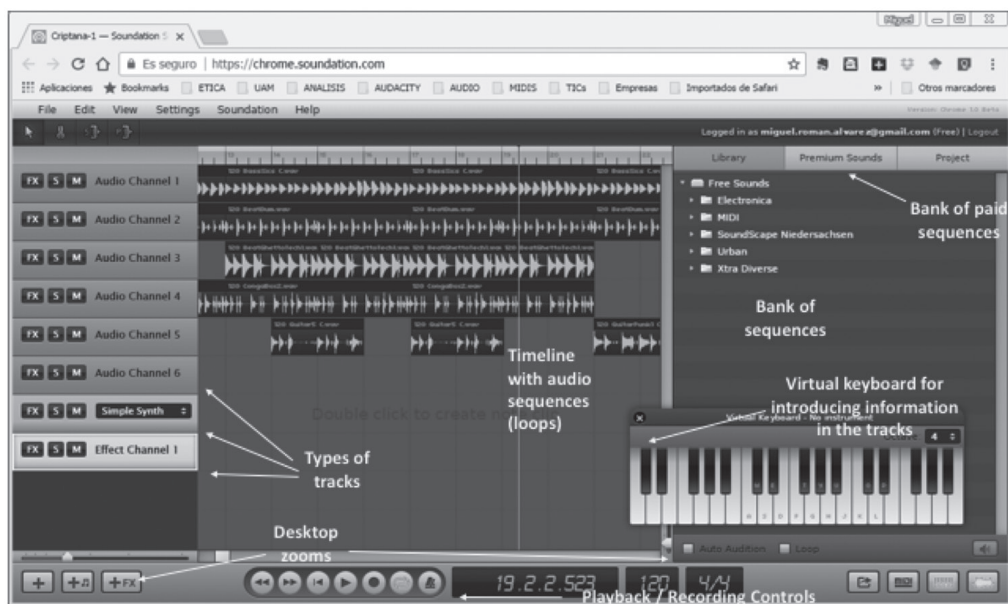


Figure 8 shows how by placing the resources that the program provides in its sound bank onto the different tracks we can create a song using loops, add effects, and even add sequences created directly through external or virtual MIDI instruments.

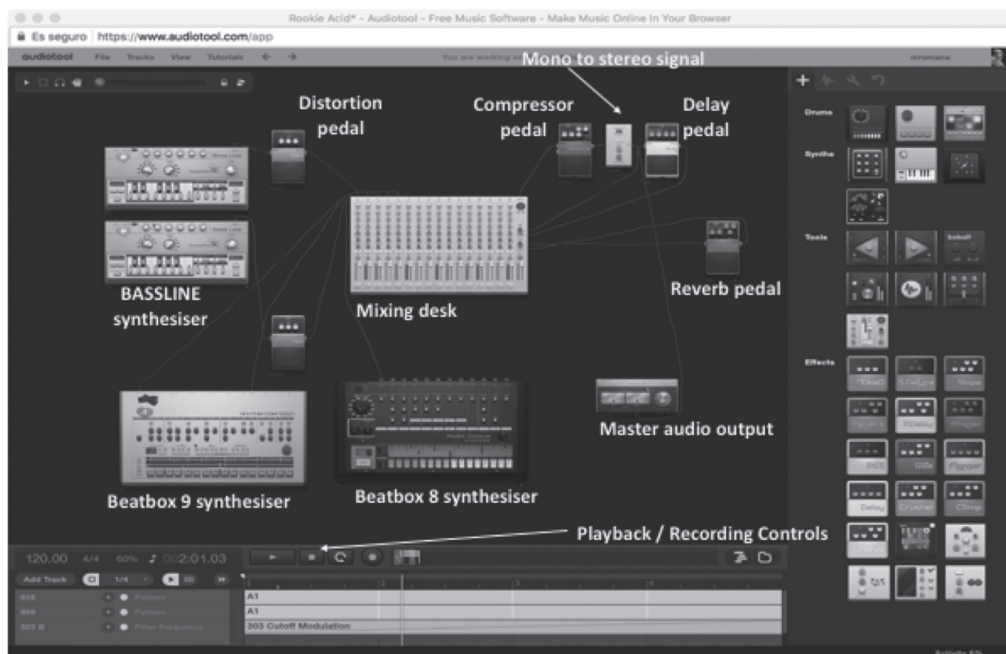
Audiotools, for its part, is a very powerful tool which is slightly more complex to use depending on the user's level of experience in the use of digital and virtual instruments.

This application features a flexible desktop where users can place and connect a series of modules: instruments for generating sounds and manipulating

their timbre, mixer modules for channeling the sound and mix of all of the instruments, and modules for sound equalisation and generating effects.

The playback and recording tracks are located at the bottom of the desktop. The modules and connections controlling and channelling the tracks played by the different modules are positioned in the middle, and on the right of the desktop there are various types of module that can be used in the mix to create new instruments. As shown in Figure 9, there are modules dedicated to percussion sounds, synthesiser modules for creating different timbres, and a large quantity of effects modules.

FIGURE 9. Audiotools desktop.



The image shows a small virtual digital sound studio with which we can experience the manipulation and creation of all sorts of timbres and sound levels, but it is necessary to know about or find out about audio concepts in general and digital audio in particular to use it.

Incredibox is an online tool that makes it possible to creatively make multiple accompaniments emulating the method of beatboxes by combining the sound loops available to it. It has a very interactive interface where several effects can be combined simultaneously with the group of virtual musicians in the accompaniment. The result can be exported to an audio file for use outside Incredibox.

Using this tool, students can develop their creativity and create a melodic-

rhythmic mix with the audio fragments that the tool provides in its different styles, with a minimum of 10 loops per sequence and an approximate maximum duration of around three minutes. Users can also choose to export the audio loops for each musician separately and combine them with more elaborate postproduction work in an audio sequencer such as Audacity.

Finally, in the field of musical training, «Teoría.com» is a website for learning and practising musical language online. This website allows continuous assessment of the work done by the student throughout the year, but for this function the centre must subscribe to the website. However, the exercises that the webpage offers can be used for free, making it possible to

practice individually; furthermore, the application corrects the exercises in real time, although it does not save the student's development over time. This is undoubtedly a good option for learning and practising the basic concepts of musical language.

To summarise this section, we can set out the need to train teachers in the use of free musical tools as part of their basic initial training. This will encourage collaborative work between teachers, between students, and between teachers and students, given that they will all be able to use the same tools without restrictions and with a minimal economic cost while respecting the lawfulness of the intellectual property and copyright, so often called into question by software piracy.

3. Reflection and proposal

Having identified the proposals for the inclusion of ICT in music education from the perspective of free software, the university sector and relevant authorities must implement basic, quality, and specific technology training for music education in compulsory education. This training will be for all future teachers in the fields of early childhood education, primary education, and compulsory secondary education.

As is noted in Román's thesis (2014), the first step would undoubtedly be to develop the necessary skills in all teachers regarding the expert knowledge and handling of, as a minimum, one audio sequencer and one MIDI sequencer. This basic training proposal would initially

take shape using two free applications: Audacity and Muscore.

Expert handling of both applications would, consequently, provide knowledge of musical processes applicable to other similar software without the need to study it specifically, as well as a broad range of possibilities for creative use in everyday teaching mediated through ICT.

Paying greater attention to the training possibilities of free software and supporting this movement by using it will be of great help for the field of music education.

Notes

- ¹ Atari was a pioneering company in arcade games, home videogames, consoles, and personal micro-computers. Its dominance in these areas maintained Atari as the major force in the computer and entertainment industry from the start to the middle of the 1980s.
- ² Audacity: <http://www.audacityteam.org/>
- ³ Ardour: <https://ardour.org/>
- ⁴ Denemo: <http://www.denemo.org/>
- ⁵ Muscore: <https://musescore.org/es>
- ⁶ Hydrogen: <http://hydrogen-music.org/hcms/>
- ⁷ LMMS: <https://lmms.io/>
- ⁸ GNU Solfege: <https://www.gnu.org/software/solfege/solfege.html>
- ⁹ Phonascus: <http://www.lenmus.org/es/phonascus/intro>
- ¹⁰ Jack: <http://jackaudio.org/>
- ¹¹ As observed by O'Reilly, a supporter and advocate of the free software movement, Web 2.0 is the internet as a platform including all connected devices, and Web 2.0 applications are ones that provide most of the intrinsic advantages of this platform: supplying software as a continuously updated service that improves as more people use it, consuming and mixing data from multiple sources, including individual users, at the same time as its own data and services in a way that permits remixing by others, creating network effects through an architecture of participation, and goes beyond the page metaphor of Web 1.0.

- ¹² This term refers to the storage of data and programs that no longer need to be installed or stored on the computer to be able to access them.
- ¹³ Noteflight: <https://www.noteflight.com/login>
- ¹⁴ Soundation: <https://soundation.com/accounts>
- ¹⁵ Audiotool: <https://www.audiotool.com/>
- ¹⁶ Incredibox: <http://www.incredibox.com/>
- ¹⁷ Music Theory Web: <http://teoria.com/es/>
- ¹⁸ Loops are audio fragments of one or several beats that can be linked and mixed successively to form longer musical sequences or songs.

References

- Adell Segura, J. & Bernabé Muñoz, Y. (2007). Software libre en educación. In J. Cabero Almenara (Ed.), *Tecnología Educativa* (pp. 173-193). Madrid: McGraw-Hill.
- Marqués Graells, P. (2011). ¿Por qué las TIC en la educación? In R. Peña (Ed.), *Nuevas tecnologías en el aula*. Tarragona: Altaria.
- Román Álvarez, M. (2014). *Las TIC en la educación musical en los centros de educación primaria de la Comunidad de Madrid: formación y recursos del especialista de música*. Doctoral dissertation Madrid: Universidad Autónoma de Madrid.
- Sigalés, C., Mominó, J. M., Meneses, J., & Badía, A. (2009). *La integración de Internet en la educación escolar española*. Barcelona: Editorial Ariel.

University musical training in a blended-learning context

Formación musical universitaria en un contexto de enseñanza blended-learning

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Abstract:

This research study analyses the teaching of music through a blended-learning approach in a primary teaching degree programme offered by a faculty of education. A multi-method approach with qualitative and quantitative tools was used. These tools enabled us to analyse the effectiveness of the training and the variables that affect how students rate the training they receive. The results were satisfactory with the training meeting the expectations of students and teachers alike. The results illustrate the need to offer students technical assistance, the importance of the role of the teacher, and the fundamental need to carry out face-to-face sessions. We conclude that there is a need in society for continuing education which it is challenging to combine with work life. Therefore, it is essential to change how we understand and experience universities; they should provide greater flexibility and be more closely connected with the real world.

Keywords: Musical training through blended-learning, blended-learning musical training, musical education and internet.

Resumen:

Este estudio expone una investigación sobre la enseñanza de la música en una Facultad de Educación que imparte formación en modalidad *blended-learning* en el Grado de Maestro en Educación Primaria. Se ha desarrollado un estudio multimetódico, utilizando tools cualitativas y cuantitativas. A través de ellas, se ha analizado la efectividad de la formación y las variables que influyen en la valoración que realizan los students sobre la formación recibida. Los resultados han sido satisfactorios, y la formación recibida ha cumplido con las expectativas de alumnos y profesores. Los resultados exponen la necesidad de ofrecer ayuda técnica a los students, la importancia de la función del profesor y la

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obligatoriedad de realizar sesiones presenciales. Concluimos que la sociedad tiene una necesidad de formación permanente que no puede compaginar con la vida laboral, por lo que se hace necesario un cambio en la forma de entender y vivir el entorno universitario que

debe aportar flexibilidad y estar en conexión con el mundo actual.

Descriptores: Formación musical a través de blended-learning, formación musical semi-presencial, educación musical e internet.

1. Introduction

Most universities now use learning platforms in their teaching-learning processes as in recent years they have acquired significant importance in the field of education, thus helping to develop training processes in the most important of educational settings: face-to-face and distance teaching.

The dominant model of university is becoming more and more open, using learning platforms and the internet as ways to expand the classroom beyond the walls that used to enclose it. This is a new trend in the way of understanding universities and their function.

One important point in *UNIVERSITIC 2012: Descripción, gestión y gobierno de las TI en el Sistema Universitario Español* («UNIVERSITIC 2012: Description, management, and administration of IT in the Spanish university system»), the annual report of the Conferencia de Rectores de las Universidades Españolas (Association of Vice Chancellors of Spanish Universities), is that «90% of teaching and research staff and students already use their institution's virtual learning platform» (CRUE, 2012, p.7).

Accordingly, the meta-analysis by Cabero-Almenara, Marín-Díaz, and Sampedro-Requena (2017) about online training through MOOCs is interesting. They selected and analysed 89 articles on education with JCR, Scimago Journal, SCOPUS, and Sello Fecyt impact factors and rankings from the 2011 to 2016 period alone, a number which is proof of the changes occurring in the teaching-learning process and the interest of universities from all over the world in analysing and improving training.

Thanks to learning platforms and the internet, students can call on human and technical resources that help them in their training process, enabling new ways of conscientiously and responsibly accessing, transmitting and generating information and knowledge.

The present study derives from the need to establish whether blended learning currently offers better and more flexible teaching-learning methodologies that meet the demands of the current students, specifically in the field of music education.

2. Current status

The use of blended learning or virtual training models in the field of music is now sufficiently developed for us to be able to evaluate its efficacy. As is explained below, several authors have carried out research on this topic with various results. Many note the benefits of learning platforms and online training (Ballantyne, Barrett, Temmerman, Harrison, & Meissner, 2009; Castaño-Garrido, Garay, & Maíz, 2017; Giráldez, 2010; Hoppe, Sadakata, & Desain, 2006; McCarthy, Bligh, Jennings, & Tangney, 2005; Nuez 2011; Sánchez & Murua-mendiaraz, 2010; Toboso, 2010). Others, however, find areas for discussion or improvement in the form and background of these educational models (Alberich-Artal & Sangrà, 2012; Ho, 2009; Kruse, 2013).

In this regard, García Aretio's idea (2011, pp. 255-256) is especially noteworthy. In it he argues that «explicit theoretical proposals must be made that can be debated to increase the level of academic consensus in order to reinforce the quality and advances in the new digital teaching and learning systems.»

Some examples of the use of learning platforms and the internet in the virtual music classroom are provided below.

Focusing on the use of technological tools in musical training, Hoppe, Sadakata, and Desain (2006) evaluate the usefulness of four systems (Singad, Albert, Sing, & See, & Winsingad) employed as tools for virtual learning. Their study confirms the effectiveness of the visual real time

information these systems provide in improving singing abilities.

From the same perspective, Huang and Chu (2013) show how recording and playback functions in a web environment enable students to acquire a command of singing abilities, and state that this system for learning sol-fa using the internet is effective for the student.

From a different viewpoint, Hebert (2007) performs a most interesting analysis of online music training, focussing on human training resources, concluding that the success of a musical training programme at university level is based on human factors: firstly, the administration, which has the obligation of identifying outstanding teachers and providing them with the appropriate support; secondly, the teachers, who must design effective lessons and stay up-to-date with technological and pedagogical innovations; thirdly, the students, who must play an active role; and fourthly, those responsible for supervising the work of their colleagues at similar institutions.

From a metaphorical viewpoint, Dillon (2009) sees the face-to-face and virtual settings as islands and educational software as a tool that enables learning in both contexts and acts as a bridge between the islands. The author observes that the software (in this case jam2jam) facilitates interactive listening and the assisted collaborative experience that makes it possible for students to «improvise» together in real time within defined musical parameters and in a virtual setting.

From the methodological perspective, Navarro, Lavigne, & Martínez Salgado (2009) consider that opening music pedagogy up to new educational theories and applying technology to online education can create new spaces for transmitting high-level musical culture. This opinion is shared by Digolo, Andang'o, and Katuli (2011) who emphasise that through elearning, collaboration with music departments all over the world is strengthened. This collaborative focus encourages the formation of discussion groups with students and research groups with teachers from various institutions who interact with each other.

These conclusions are not shared by Ho (2009), who refers to the few changes that e-learning and technology training have caused in Hong Kong's universities with regards to the quality of learning of music. In her research, she concludes that on-line learning was infrequent, and students' use of technological tools and email communication with teachers was restricted to homework tasks and presentations. Most of the students thought that the university teachers were their main source of learning.

We surmise that musical training using technology such as learning platforms and the internet opens up a wide range of possibilities for teachers and students. In light of this, and taking into account their advantages and disadvantages, it is necessary for teachers and students to be prepared, suitably trained, and in a position to carry out research to improve musical education.

3. Design and procedure

The Faculty of Education of the Universidad Pontificia de Salamanca was selected as a site for performing the research set out here. This centre offers students blended learning degrees in preschool teaching and primary teaching. An incidental non-probability sample was used, taking into account the choice of a Faculty of Education with the corresponding profile in accordance with the proposed objectives.

To evaluate blended learning, we attempted to answer the following questions:

- Do the centre's students and teachers meet expectations in the teaching-learning process for music through blended learning?
- What variables affect the students' ratings of the functional, technical-aesthetic and pedagogical aspects of the teaching of music through blended learning?

3.1. Objectives

In accordance with the research questions, the following objectives were formulated:

- To study the effectiveness of blended learning in music instruction on teacher training courses.
- To find out which variables affect the students' evaluation of the functional, technical-aesthetic, and pedagogical aspects of music teaching through blended learning.

3.2. Context

The centre being studied has used the blended learning method since 2004, being one of the pioneering centres for this type of instruction on teacher training courses. The students carry out their studies online, with compulsory attendance once a month for a face-to-face class and for the final exam.

For this research, the Voice and ear training and Instrumental and ensemble training modules from the music major in primary school teaching degrees were analysed. These modules are delivered by a teacher who will be referred to as BLT1 (Blended Learning Teacher 1). There are 20 students enrolled on them.

3.3. Methodology

As this is a multimethod piece of research, a variety of data collection tools were used.

The following qualitative tools were used:

- Observations of the first face-to-face sessions on the Voice and ear training and the Instrumental and ensemble training modules. Subsequently, several streamed videos of the face-to-face sessions were watched, videos that are available to the students on the learning platform.
- Interviews: a face-to-face interview with the music teacher who is also the coordinator of the blended learning modality. Contact after the interview was by telephone and email.

Individual interviews were carried out with two students (AS1 and AS2). Subsequent contact was by video-conference (Skype) and email.

A questionnaire was used as a quantitative tool to help with data triangulation. This was distributed to the 20 enrolled students with a link that was made available to them on the institutional learning platform on 9 May 2012 and the information was collected in June 26. Of the questionnaires, 16 were completed.

To facilitate understanding, qualitative results will be set out separately from the quantitative results and the article will conclude with the triangulation of data and conclusions.

4. Results of the qualitative data analysis

The results of the analysis of qualitative data obtained through the observations and interviews are set out below.

They are presented according to the research categories chosen:

- The blended learning teacher.
- The blended learning student.
- Communication through the virtual learning platform.
- Blended learning (proportion of face-to-face learning).

These therefore respond to the first research question: Do students and teachers of Primary School Teaching reach the expectations in the music teaching-learning process through blended learning?

4.1. The blended learning teacher

At the time that the study was performed, the teacher had seven years' experience of blended learning. When he started to deliver blended learning, he had no experience in online music teaching but he had worked with virtual learning platforms in various projects relating to downloading files from the internet, information transfer, etc.; he had also received prior continuous training from the institution.

BLT1 tutors 20 students. The answers to the questions about the teacher show that students are very satisfied with his work and with the progress of the module. His friendliness and knowledge of blended learning training mean that they consider him to be a good virtual teacher.

Student AS1 said about the teacher: *When I was his face-to-face student we participated much more and the experience was excellent. I think it was one of those modules that could change the path of your career in music. It changed your way of looking at music teaching.*

The students say that the function of the blended learning teacher is difficult, and they believe that it is necessary for the teacher to work on motivating and monitoring the students as well as using all available resources. In response to the question: *How do you see a virtual teacher?* AS2 said: *I think it must be difficult for them. I think it is very important that they are attentive to us because, however dedicated we are, they have to make us work and*

be active in the module. In the case of this teacher, I can see that he does it very well. He uses all of the resources necessary to get us hooked on the module: videos, forums, he leaves resources on the message board, interesting links, special music pages, etc. He helps us a lot and he provides us with alternatives to follow. Of all the teachers I've had, he is the best.

As for the modules, the students agree that they are very practical and that the teacher knows the blended learning modality. AS2 commented: *I am very happy with this teacher's module, in my opinion it is the best one of all. I think it's very important for it all to be practical as theory is something we can study at home. I think he is the teacher who does this best and the one who adapts best to this methodology.*

Regarding their relationship with the teacher the students emphasise the importance of his approachable personality and how he encourages student participation. AS1: *A teacher with an approachable personality and who makes the students participate a lot in the module ... I think that achieves a lot.*

In summary, we can affirm that in the view of the students, the role of the blended learning teacher is complicated and requires a great deal of effort from the teacher. They agree that the classes are very practical and that the teacher knows the blended learning modality, and they emphasise the importance of his approachable personality and the way he promotes student involvement.

4.2. Blended learning students

The music groups comprise 20 students. They enter from different degrees or diplomas and come from various places throughout Spain. They are all aged over twenty and some are even already working as primary school teachers.

This is the teacher's opinion of his students: *They are students who are prepared for this type of training. Nowadays the student is someone who is online, uses Facebook, shops online and is used to working online. It was much more difficult to work on teaching with blended learning six years ago. In fact, in some cases we almost have problems because the students can handle the resources better than the teacher.*

In contrast, AS2 sees it like this: *I don't spend as much time on it as I would for a face-to-face module. I try to read all of the materials and resources they provide, I do the homework, I look to see if there is something interesting in the forum, but dedication is important.*

We should recall that the students from this centre enter with a diploma or a degree, and so many of them are already in contact with schools and can put their learning into practice. AS2 works in a CRA (Colegio Rural Agrupado or Combined Rural School, one where pre-school and primary education are provided on the same site): *Two hours of music are provided per week. During the year, I go to those two hours of class and that is very important, because you don't learn enough with what is available in the faculty. With blended learning you get ideas, resources, but it is a small base.*

As can be seen, from the teacher's viewpoint, virtual students are suitably trained and prepared to pursue their studies online, but the students admit that they spend less time on their training when it is virtual, although they do support their learning process through their practice in the centres where they work. The teachers also understand the need for blended learning students to make an extra effort to complete their training process.

4.3. Communication through the virtual learning platform

The communication tools such as the forum were used a lot, and so strengthened the personal relations between the teacher and the students. The platform has three forums and in one of them the whole university can participate, some 2,000 students. Use of the module forum is compulsory. The teacher accesses it every day and he encourages the students and reviews their work.

The teacher and the students were asked what relationship is established between the teacher and the students in blended learning training. They responded as follows:

BLT1: *I think I am an approachable teacher. I think I have a good relationship with them, although the platform is colder than face-to-face teaching.*

The students note the colloquial and friendly language used by the teacher. For them, this form of expression creates a friendly and free atmosphere. On the

other hand, for the teacher, the written language students use shows their professionalism and courtesy: *Our students are well educated; they have an average age of about thirty and they are already working.*

They were asked to give their impression of their relationship with their virtual course mates, responding as follows:

For AS1 the number of students in the group and the teacher's work are very important: *When there are lots of people on a module, people are colder, more anonymous. Studying the English specialism with blended learning, where there were five hundred or six hundred of us, I didn't get to know anyone. But in smaller classes like music the relationship between course mates is warmer. And what particularly helps the most is the teachers' work. If they get the students involved in participating actively, they really facilitate the relationship between the students.*

AS2 emphasised the importance of the communication tools: *Thanks to the forums, you chat a lot and people offer you help. You can put any question in the forum and people will answer it quickly.*

The students are happy with the relationships that develop with their course mates; they state that the small number of students and the communication tools favour this relationship. They recognise the teacher's efforts, involving them in active participation, which also greatly facilitates the relationship between them.

4.4. Blended learning training

The centre being studied offers its students blended learning, meaning that a percentage of the classes are delivered face-to-face and another percentage is virtual. The face-to-face sessions are obligatory for students. In this case, it involves three face-to-face classes per term as well as the exam.

Students and teachers alike state that the face-to-face sessions are highly necessary and that the number of face-to-face hours should be greatly increased, and they regard videoconferencing as an option for increasing this amount of time.

They support this modality if the students already have another type of previous studies, and see blended learning as an opportunity for maintaining lifelong learning.

The teacher states that this is not the most appropriate type of training for music teaching, but he is happy with the results and believes in blended learning. BLT1: *This modality developed to cover the demand for second qualifications from students who would normally have problems attending during the week.*

The students state that this way they can combine study and work. *Obviously, you don't learn like a face-to-face student, but it's okay.*

The teacher delivers one face-to-face class at the start of the term and one face-to-face session per month with a duration of 55 minutes. In the words of

the teacher: *It is very important to understand that the face-to-face sessions help with setting and motivating the work. Today's face-to-face session will have an introduction of around ten or fifteen minutes to motivate the students. Exercises will be set which will be the basis of the work they will have to do and build on from there.*

According to the teacher and the students interviewed, these sessions are absolutely necessary and they do not envisage training with no face-to-face element.

Regarding the question of whether the module meets the students' expectations, differing opinions can be found:

AS1: *Yes, also it was what I wanted.*

AS2: *They give you ideas, resources, but you never learn well how to deliver a class.*

For the teacher, the blended learning modality is also not ideal for music training: *It is not the most appropriate modality, although we make an effort for it to come close. I understand that there are majors and specialisms where it might work better.*

The students were asked whether they believed that this type of teaching complements, facilitates or impedes the teaching-learning process for music, to which AS1 responds: *I think that for professionals it is very good for lifelong learning.* AS2 says that it helps but not enough: *This sort of module is very practical, and so you have to put the theory into practice and you cannot do that here.*

Teacher BLT1 finds significant differences between face-to-face teaching and blended learning: *My view is that even using all of the resources we have in blended learning, I feel like my module is more complete and the student learns better with face-to-face teaching. It is also true that all of the blended learning students already have a second qualification relating to the field of music while the students I have in the face-to-face setting are eighteen or nineteen years old and are confronting a university degree for the first time.*

When asked if he was satisfied to be delivering blended learning, he answered: *Yes. Besides, I coordinate this modality, that is to say, I believe in this type of teaching.*

The students are also satisfied with the training received. As AS1 says: *If I can, I will do it again in another major.* AS2: *It is a way of continuing to learn.*

As we can see, for students and teachers, blended learning has shortcomings, but even so they feel satisfied with the training delivered and received, and they emphasise the opportunity that it offers them to continue learning throughout their life.

5. Results of the quantitative data analysis

The results of the analysis of the quantitative data obtained through the completed questionnaires are set out below.

Table 1 shows the categorical variables, research questions, aspects to be evaluated and categories.

TABLE 1. Questions, aspects and categories.

Categorical variables	Age. Place of residence. First experience as a virtual student.	
Research questions	Aspects to evaluate	Categories
1) Do the students and the teachers of Primary Education meet the expectations in the music teaching-learning process through blended-learning?	Pedagogical aspects	— Blended-learning teacher — Blended-learning student — Virtual communication
	Functional aspects	— Blended-learning training
Research questions	Aspects to evaluate	Categories
2) What variables affect the rating students give to functional, technical-aesthetic and pedagogical aspects of music teaching through blended learning?	Technical-aesthetic, functional and pedagogical aspects	— Learning platform — Tools — Materials — Programmes or study guides — Evaluation criteria — Organisation and structure of the content and activities — Communication — Blended-learning teacher — Blended-learning student — Blended-learning training

Source: Own elaboration.

The frequency analysis and a description of the sample are presented first before a parametric analysis of the variables.

5.1. Frequency analysis and description of the sample

The sample comprises a group of 16 students (the ones who answered the questionnaire) with little age variation as most of them are between 19 and 29.

There is a wide degree of variation in place of origin for the students in the sample.

The sample is sharply divided in their answers to the question about whether it

is their first virtual experience, with 43.8% answering that it is not their first virtual experience and 56.3% saying that it is.

5.2. Descriptive and parametric analyses

Having analysed the characteristics of the sample, descriptive and parametric analyses between the different variables in the responses to the research questions will be performed. To do so, descriptive analyses will be performed to answer the first research question and parametric contrast analyses will be used for the second research question.

As in the presentation of the qualitative results, reference will be made to the function of the teacher, to the communication generated through the virtual learning platform and to the proportion of face-to-face teaching used, thus answering the first research question:

Do students and teachers of Primary School Education meet the expectations in the teaching-learning process for music through blended learning?

5.2.1. The blended learning teacher

The role that the teacher performs through the learning platform was analysed, finding that 100% of the students think that he responds to online consultations quickly and in a satisfactory manner, as well as encouraging online the students' interest in learning.

5.2.2. Online communication

Regarding the students' virtual relationship with their course mates, it is apparent that no students in the sample say that they have no virtual relationship with their course mates (0%), and 75% say that the virtual relationship is worse than the face-to-face, preferring real contact.

Regarding the virtual relationship with teachers, the data indicate that the virtual relationship is the same as the face-to-face one, while in no case do they say that it is better or much better. This piece of data indicates that the blended learning students from the sample prefer real relationships between each other

and with the teachers to virtual relationships.

Question 13 of the questionnaire includes items that measure the quality of the virtual relationships through the learning platform. With an average of 4.64 (on a scale of 1 to 5) and with a standard deviation of just 0.28, we can conclude that although the blended learning students in the sample prefer real relationships with their course mates and teachers, the virtual relations and communication in this training experience were highly rated.

5.2.3. Blended learning

When the blended learning students were asked what type of training they think is best, taking into account the face-to-face credits, 43.8% say that the training should be blended learning with one session per month (we should recall that this is the type of training they receive) and 37.50% opt more for face-to-face teaching with the support of the learning platform.

We are not only interested in whether it is compulsory to attend the face-to-face sessions, but also in how useful these sessions are. Accordingly, we are pleased to note that as well as being compulsory, they are also useful as 62.50% of the students in the sample consider them very useful and 18.80%, fairly useful, while none of them consider them to be of «no» or «little» use.

Finishing with the questionnaire, two general questions were asked about the training received: firstly, would they re-

peat their experience in training through blended learning; and secondly, what overall rating they would give the training they received in the music module taken.

For the students, the training they received met their expectations; firstly, because 81.3% would repeat the experience and, secondly, because 100% gave the module they took 4 or 5 points (on a scale of 1 to 5).

The second research question is: What variables affect the students' evaluation of music teaching through blended learning? To answer this we will contrast the previous data categories (ordinal variables) and the functional, technical-aesthetic and pedagogical aspects (learning platform, tools, materials, study guides, evaluation criteria, organisation and structure of the content and activities, blended learning teacher, blended learning student, virtual communication and blended learning training) with the categorical variables: age (interval), previous virtual training (nominal dichotomous), technical assistance (ordinal), usefulness of the face-to-face sessions (ordinal).

5.2.4. Crosstabulation of variables 1: Functional, technical-aesthetic and pedagogical aspects of the training with age

In this section, Table 2 is reproduced showing Pearson's r correlation of the categories: age, learning platform, tools, content, programmes, evaluation materials, functional, technical-aesthetic and pedagogical aspects.

We can see when cross tabulating variables with age that there is no sta-

tistically significant relationship between the age of the subjects and the rating they give to the technical-aesthetic and functional aspects, which we will call F1, and the pedagogical aspects, which we will call F2. This indicates that age does not have a significant effect on the rating of the different aspects; only one statistically significant relationship has been found, a negative relationship between age and the teacher's materials, which indicates that the older the subjects are, the less highly they rate the materials used in the training.

We can see that there are statistically significant relationships between several of the indicators evaluated in the research, all of them positive, indicating to us that, in general, the higher the students rate these indicators, the higher they rate the rest. Consequently, in training through blended learning it is important to take care of all of the aspects and indicators that form part of the training, to achieve higher quality and student ratings.

5.2.5. Crosstabulation of variables 2: Functional, technical-aesthetic and pedagogical aspects with first experience in online training

We performed a Student t -test to test whether there are differences between the different categories and aspects evaluated in the research, according to whether the student has had previous experience with the internet or if it is their first experience, obtaining results that show that there are no statistically significant differences in this matter.

TABLE 2. Pearson's r correlation of the categories.

		Age	Learning platform	Tools	Content	Programme	Evaluation	Materials	Relationships	F1. Technical-functional	F2. Pedagogical
Age	r sig.	1	-0.447 0.083	0.137 0.613	-0.457 0.075	-0.91 0.737	0.027 0.920	-0.656** 0.006	0.077 0.778	-0.343 0.193	-0.338 0.201
Learning platform	r sig.		1	-0.330 0.212	0.463 0.071	0.338 0.200	0.118 0.663	0.716** 0.002	-0.046 0.866	0.437 0.090	0.484 0.057
Tools	r sig.			1	0.357 0.175	0.464 0.071	0.615* 0.011	0.005 0.987	0.657** 0.006	0.616* 0.011	0.486 0.056
Content	r sig.				1	0.444 0.085	0.374 0.154	0.778** 0.000	0.515* 0.041	0.918** 0.000	0.768** 0.001
Programme	r sig.					1	0.608* 0.012	0.331 0.210	0.545* 0.029	0.615* 0.011	0.745** 0.001
Evaluation	r sig.						1	0.159 0.557	0.709** 0.002	0.579* 0.019	0.754** 0.001
Materials	r sig.							1	0.259 0.333	0.694** 0.003	0.720** 0.002
Relationships	r sig.								1	0.624** 0.010	0.755** 0.001
F1. Technical-functional	r sig.									1	0.862** 0.000
F2. Pedagogical	r sig.										1

Source: Own elaboration.

5.2.6. Crosstabulation of variables 3: Functional, technical-aesthetic, and pedagogical aspects with technical assistance received

students' ratings of each type of category and aspects depending on the degree of technical help that they feel they have received.

We used Pearson's r correlation to test whether there are differences in the

TABLE 3. Crosstabulation of aspects with technical assistance received.

	Technical Help Received	
Learning platform	r	0.823**
	Sig.	0.000
Tools	r	-0.187
	Sig.	0.488
Content	r	0.492
	Sig.	0.053
Programmes	r	0.193
	Sig.	0.474
Evaluation	r	0.155
	Sig.	0.567
Materials	r	0.744**
	Sig.	0.001
Relationships	r	0.063
	Sig.	0.815
F1. Technical-functional	r	0.468
	Sig.	0.068
F2. Pedagogical	r	0.507*
	Sig.	0.045

Source: Own elaboration.

Table 3 shows that there are statistically significant relationships between the amount of technical help received and the learning platform, the materials and the pedagogical aspects. This sug-

gests that for the learning platform, materials and pedagogical aspects to be highly rated, it is important to offer the students technical help.

5.2.7. Crosstabulation of variables 4: Functional, technical-aesthetic and pedagogical aspects with usefulness of face-to-face sessions

We calculated a Pearson's r correlation to establish whether there are dif-

ferences in the ratings given by the students of each type of category and aspects depending on the usefulness that they think that the face-to-face sessions had.

TABLE 4. Crosstabulation of aspects with usefulness of the face-to-face sessions.

	Usefulness of the face-to-face sessions	
	r	Sig.
Learning platform	0.324	0.221
Tools	-0.331	0.210
Content	-0.090	0.741
Programmes	0.174	0.519
Evaluation	0.281	0.291
Materials	0.104	0.701
Relationships	0.075	0.781
F1. Technical-functional	-0.113	0.676
F2. Pedagogical	0.215	0.425

Source: Own elaboration.

Table 4 shows that there are no statistically significant relationships in any of the categories or aspects with regards to the variable in question. This suggests to us that whether the students feel that the face-to-face sessions are useful for their rating of the different categories and aspects of the training has no influence.

6. Data triangulation

Once the qualitative and quantitative results were extracted and presented, the data was triangulated.

6.1. Teacher

The students are very satisfied with the teacher's work. His approachability,

friendly character, efforts to motivate and monitor the students, and knowledge of this type of training mean that they see him as an excellent virtual teacher.

They believe that this is the module on which they will learn most, seeing the teacher as someone who changes how music teaching is interpreted. He facilitates the module, delivers active classes, helps, and opens paths, using all of the resources necessary to involve the student.

The quantitative analysis ratifies these data with 100% of the students believing that the teacher responds to online questions quickly and in a satisfactory manner, as well as using virtual means to encourage an interest in learning.

From these opinions, we can deduce the importance of the teacher's work for these students.

6.2. Students

The students in this second study are a group of 20 who are studying towards the degree in primary school teaching and majoring in music. Most of them are aged between 19 and 29 and they come from a wide variety of places. All of the students already have another primary school teaching major or a degree.

They state that they are happy with the relationships they developed with their course mates, something made possible by the small number of students and by the work of the teacher, who encourages them to participate actively, thus greatly facilitating the relationship between the students.

They are very cooperative and participate in the group. From the teacher's per-

spective, the virtual student is one who is professionally trained and is technically prepared to carry out his or her studies online.

6.3. Communication

The students underline the colloquial and friendly language used both in the forums and in the face-to-face sessions. For them, this form of expression creates an atmosphere of friendliness and freedom.

If we consider the relationships created through the learning platform between the teacher and the students or between students, we can see in the quantitative study how all of the students relate to each other using the internet, although 75% say that the virtual relationship is worse than the face-to-face one and they prefer real contact with their course mates.

As for their relationship with their teachers, we can see that blended learning students also prefer real relationships with their teachers.

We conclude that although the students prefer real relationships with their course mates and with the teachers, the relationships and communication carried out using the learning platform were well rated, with an average of 4.64 (on a scale of 1 to 5).

6.4. Blended learning training

In the blended learning modality, face-to-face sessions play an important role in the educational process. In this study, it is apparent that the face-to-face classes take place in a very practical fashion, with the theoretical support materials for them available on the learning platform.

They are used for introducing new topics and motivate the work that the students will have to do.

Students and teachers believe that the face-to-face sessions are very necessary and that the number of face-to-face hours should be greatly increased.

These data are corroborated by those obtained in the quantitative analysis, where we see that the face-to-face sessions are useful; 62.50% of the students consider them to be very useful, 18.80%, fairly useful, and none consider them to be of no or little use.

We have established that there are no statistically significant relationships in any of the categories and factors with regards to the usefulness of the face-to-face sessions. This suggests that whether students feel that face-to-face sessions are useful does not affect their rating of the different categories and aspects of the training.

Most of the students in this study favour face-to-face training with internet support (37.50%) or blended learning with one session per month (43.8%), which is the type of training they are doing.

The teacher states that, with regards to teaching music, the blended learning modality is not the most appropriate one as it is such a practical module, but he is happy with the results and believes in blended learning.

7. Conclusions and future

In the light of these data, we can say that the modules studied through blended

learning meet the expectations of the students, given that they are happy with the training received; 81.3% would repeat the experience and 100% give the module they studied 4 or 5 points (on a scale of 1 to 5).

The teachers and students emphasise the opportunity it offers them to continue learning throughout their life. Training through blended learning has shortcomings, but they feel satisfied with the training delivered and received, taking into account that:

- They accept that they spend less time on their training as it is blended learning, although the support their teaching-learning process by putting what they learn into practice in the centres where they work.

- They understand that blended learning students need to make an extra effort to complete their training process.

- The students support the blended learning modality if they already have another type of studies.

- They understand the challenges facing the blended learning teacher.

- They see blended learning education as an opportunity to maintain lifelong learning.

In the quantitative analysis, we have been able to observe that there are statistically significant relationships between several of the categories and aspects evaluated in the research, all of them positive, indicating that, in general, the higher students rate some of these indicators, the higher they will rate the others. Therefore, in blended learning training, it is important to take care of all the aspects

and categories that form part of the modality to achieve higher quality and higher student ratings.

The need for continuous training in contemporary society means that students look for another form of teaching that is not face-to-face. Online regulated training which encourages the formation of virtual learning communities is an opportunity for continuous training that makes it possible to combine working life with training.

Command of the technologies boosts communication between users, but we should take into account that learning is a process that requires interaction between teacher and student and between the students, and so there should be compulsory face-to-face sessions and small numbers of students being tutored by each teacher to improve quality to mutual benefit should be favoured.

We agree with Kampylis, Punie, and Devine (2015), when they state that:

Digital technologies are being incorporated in exciting and promising ways. ... To consolidate progress and to ensure scale and sustainability, however, educational institutions need to review their organisational strategies and enhance their capacity for innovation and exploitation of the potential of new and emerging technologies and digital content. (p. 36)

Having performed this study we conclude that universities and society alike must understand that the characteristics and limits of the classrooms are blurring and, on occasion, disappearing. This involves a process of change in how we understand and use the spaces and how the

university setting is experienced; it must have flexible spaces for learning and be a conduit for connecting with the world.

Note

- ¹ This work is part of a larger study being performed in three university centres with different levels of use of virtual processes in their training models. The first is face-to-face supported by a learning platform, the second, uses blended-learning training, and the third is virtual.

References

- Alberich-Artal, E. & Sangrà, A. (2012). Virtual virtuosos: a case study in learning music in virtual learning environments in Spain. *European Journal of Open, Distance and ELearning*, 1-9. Retrieved from <http://files.eric.ed.gov/fulltext/EJ979597.pdf>
- Ballantyne, J., Barrett, M., Temmerman, N., Harrison, S., & Meissner, E. (2009). Music teachers Oz online: A new approach to school-university collaboration in teacher education. *International Journal of Education & the Arts*, 10 (6). Retrieved from <http://www.ijea.org/v2010n2016/>
- Cabero-Almenara, J., Marín-Díaz, V., & Samperdro-Requena, B.E. (2017). Aportaciones desde la investigación para la utilización educativa de los MOOC. **revista española de pedagogía**, 75 (266), 7-27. doi: 10.22550/REP75-1-2017-01
- Castaño-Garrido, C. Garay, U., & Maíz, I. (2017). Factores de éxito académico en la integración de los MOOC en el aula universitaria. **revista española de pedagogía**, 75 (266), 65-82. doi: 10.22550/REP75-1-2017-04
- CRUE (2012). *Descripción, gestión y gobierno de las TI en el Sistema Universitario Español. UNIVERSITIC*. Conferencia de Rectores de las Universidades Españolas. Retrieved from

- <http://www.crue.org/export/sites/Crue/Publicaciones/Documentos/Universitic/UNI-VERSITIC2012baja.pdf>
- Digolo, B. A., Andang'o, E. A., & Katuli, J. (2011). Elearning as a strategy for enhancing access to music education. *International Journal of Business and Social Science*, 2 (11), 135-139. Retrieved from http://www.ijbssnet.com/journals/Vol._2012_No._2011_%5BSpecial_Issue-June_2011%5D/2019.pdf
- Dillon, S. (2009). Examining meaningful engagement: musicology and virtual music making environments. In E. Mackinlay & B. Bartleet (Eds.), *Islands: Proceedings of the Musicological Society of Australasia*. Newcastle upon Tyne: Cambridge Scholars Publishing. Retrieved from <http://eprints.qut.edu.au/20238/1/c18149.pdf>
- García Aretio, L. (2011). Perspectivas teóricas de la educación a distancia y virtual. **revista española de pedagogía**, 249, 255-272.
- Giráldez, A. (2010). La composición musical como construcción: herramientas para la creación y la difusión musical en internet. *Revista Iberoamericana de Educación*, 52, 109-125.
- Hebert, D. G. (2007). Five challenges and solutions in online music teacher education. *Research and Issues in Music Teacher Education*, 5(1). Retrieved from <http://www.stthomas.edu/ri-meonline/vol5/hebert.htm>
- Ho, W. C. (2009). The role of multimedia technology in Hong Kong higher education music programs. *Visions of Research in Music Education*, 13, 1-37. Retrieved from <http://www-usr.rider.edu/~vrme/>
- Hoppe, D., Sadakata, M., & Desain, P. (2006). Development of real-time visual feedback assistance in singing training: a review. *Journal of Computer Assisted Learning*, 22, 308-316.
- Huang, Y. T., & Chu, C. N. (2013). Sound to Sight: The effects of self-generated visualization on music Sight-Singing as an alternate learning interface for music education within a web-based environment. In M. Kurosu (Ed.), *Human-Computer Interaction*, Part II, HCII 2013, LNCS 8005 (pp. 386-390). Berlin: Springer.
- Kampylis, P., Punie, Y., & Devine, J. (2015). *Promoting effective digital age learning: A European framework for digitally-competent educational organisations*. Retrieved from http://publications.jrc.ec.europa.eu/repository/bitstream/JRC98209/jrc98209_r_digcomporg_final.pdf
- Kruse, N. B. (2013). Locating 'The Road to Lissdoonvarna' via autoethnography: Pathways, barriers and detours in self-directed online music learning. *Journal of Music, Technology & Education*, 5 (3), 293-308.
- Mccarthy, C., Bligh, J., Jennings, K., & Tangney, B. (2005). Virtual collaborative learning environments for music: networked drumsteps. *Computers & Education*, 44 (2), 173-195.
- Navarro, J.L., Lavigne, G., & Martínez Salgado, G. (2009). Curso de guitarra clásica en línea: blogs para la enseñanza musical. *Lista Electrónica Europea de Música en la Educación*, 24, 23-48. Retrieved from <http://musica.rediris.es>
- Nuez, C. (2011). El blogfolio en la enseñanza musical. *Eufonía. Didáctica de la Música*, 53, 42-58.
- Sánchez, M., & Muruamendaraz, N. (2010). La formación musical del profesorado especialista en Educación Infantil en la era digital. *Revista Electrónica de Tecnología Educativa*, 33, 1-15. Retrieved from <http://edutec.rediris.es/revilec2012/revelec2033/>
- Toboso, S. (2010). Formación del profesorado en educación musical a través de enseñanza semipresencial: un estudio de casos. *C&E: Cultura y Educación*, 22 (4), 491-505.

Barcelona City Council's educational renewal and its photographic diffusion (1908-1936)

La renovación escolar del Ayuntamiento de Barcelona y su difusión fotográfica (1908-1936)

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Abstract:

Barcelona City Council's actions in the framework of Catalonia's educational renewal movement of the early decades of the twentieth century were very significant. They involved a series of measures to improve education, hygiene, and childcare provision, and to create schools and introduce innovative educational methods. All of these activities were promoted in a series of publications in which photography played a vital role. The aim of this article is to analyse the iconic and visual discourse that Barcelona City Council tried to disseminate regarding its schools policy and educational renewal plans using photography. In essence, we intend to examine how, through its visual message, it attempted to implant in the public imagination the main ideas behind its educational renewal project, ideas that coincided with the scientific pedagogy of those years. The historical method was used to carry out this study, working with photography as witness. The aim is to demonstrate how preventative hygiene, physical exercise,

active learning processes, the importance of the natural environment, the need for modern buildings and well-lit and ventilated schools, and attention to diversity comprised core values in the dissemination of the discourse that is the subject matter of this research¹.

Keywords: School renewal, Barcelona, Culture Commission, photography.

Resumen:

La actuación del Ayuntamiento de Barcelona en el marco del movimiento educativo renovador que vivió Cataluña en las primeras décadas del siglo XX, fue muy importante. Consistió en un conjunto de medidas para la mejora de las atenciones educativas, higiénicas y asistenciales de la infancia, y en la creación de escuelas e introducción de métodos educativos innovadores. A toda esta actuación se le dio publicidad mediante un conjunto de publicaciones en las que la fotografía adquiere un papel esencial. El siguiente ar-

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título pretende analizar el discurso icónico y visual que, mediante la fotografía, trató de difundir el Ayuntamiento de Barcelona sobre su política escolar y sus planes de renovación educativa. Básicamente, pretendemos indagar cómo, a través del mensaje visual, se trató de incorporar al imaginario colectivo las principales ideas inspiradoras de su proyecto de renovación pedagógica, que coincide con la pedagogía científica de aquellos años. Para efectuar este estudio se ha utilizado el método histórico y se ha trabajado con la fotografía

como como testimonio. Se pretende poner en evidencia como la higiene preventiva, el ejercicio físico, los procedimientos de enseñanza activos, la importancia del medio natural, la necesidad de modernos edificios y espacios escolares iluminados y ventilados o la atención a la diversidad, constituyeron valores primordiales en la difusión del discurso que es objeto de estudio en esta investigación.

Descriptor: Renovación escolar, Barcelona, Comisión de Cultura, fotografía.

1. Introduction

From the end of the first decade of the twentieth century, Barcelona City Council found itself obliged to respond to a significant increase in demand for schooling resulting from strong population growth. To meet this demand, the Council of Barcelona, within the limitations of its limited competences in this field, sought to build on the modern educational theories that were spreading at that time in Europe and the USA. The reformist ideas in education of the Institución Libre de Enseñanza (Free Educational Institute), modernised with those of the Escuela Nueva (New School), boosted an ambitious plan to build school buildings and open-air schools, reorganise support for people with disabilities, and generally promote and intensify activities to improve children's conditions.

This effort was recorded in some seventy books and pamphlets, extensively illustrated with photographs. The collection of these photographs is an extraordi-

narily valuable documentary corpus for uncovering the characteristics of the initiatives implemented by Barcelona City Council and seeing how a visual discourse was constructed to emphasise these reforming ideas superiority over traditional ones.

Those examining the work performed by Barcelona City Council in this era can rely on a pioneering work by Jaume Matas (1977). Following this, books by Cañellas and Toran (1982) on Barcelona City Council's school's policy between 1916 and 1936 were published as well as one by Salvador Domènech (2008) on the school groups created by the School Board during the Republic. Some monographs analyse more specific aspects, such as those by Alfred Pérez-Bastardas (2008) and Raquel de la Arada (2008) on the special culture budget of 1908. Domènech's work (1995) covers Manuel Ainaud. The book by Gonzalez-Agàpito, Marquès, Mayordomo, and Sureda (2002) provides an overview of the actions of Barcelona

City Council in educational renewal in Catalonia in this era.

Several works have been published in recent years regarding methodological questions, the possibilities of photography as a historical-educational source, and the debate around the techniques required for interpreting it (Pozo, 2006; *Educació i Història*, 2010). Other publications have more specifically explored the role of photographs in the dissemination of renovative ideas in Spain (Comas, Motilla, and Sureda, 2011) and in Catalonia in particular (Comas and Sureda, 2012; Comas, Motilla, and Sureda, 2014; Sureda, Motilla, and Comas, 2014).

2. The educational work of Barcelona City Council

Barcelona City Council actions in the framework of Catalonia's educational renewal movement in the first decades of the twentieth century were very important. They involved creating schools, renewing teaching methods and, in general, improving education, hygiene, and childcare provision. The impetus that the City Council proposed giving to schools and childcare coincided with the influence in Catalonia of the ideas of the New School, adopted by the Catalanist right to lay the foundations for a programme of social reform and for building a new national project for Catalonia. The Catalanist right, representing the industrial bourgeoisie, and groups from the republican centre-left agreed on the need to modernise education, especially from the start of the second decade of the twentieth century, albeit with disagreements and differences

on details. The reforming activities of the Catalanist right in education, as in other fields, occurred in particular in the combined governments of the provinces of Catalonia from 1914 in the *Mancomunitat de Catalunya* (Commonwealth of Catalonia). At the same time, in Barcelona City Council, not without tensions and confrontations, a fruitful collaboration developed between republicans and Catalanists enabling a wide-ranging plan for school buildings and for modernisation of teaching and institutions providing for children, such as school camps, children's canteens, and urban parks for play. The educational reformism of Barcelona Council was part of this will to modernise the city, improving hygiene conditions and services. The plans for new school buildings responded to both the pedagogic and aesthetic criteria of the period.

The initial impulse for the educational programme of Barcelona City Council owed much to Hermenegildo Giner de los Ríos (Cadiz, 1847-Granada, 1923) who was the brother of the founder of the Free Educational Institute, was committed to Krausist ideas, and for twenty years from 1899 to 1918 held a chair in psychology, logic, and moral philosophy at the *Instituto de Segunda Enseñanza de Barcelona* (Barcelona Institute of Secondary Education). Ever since his youth, he had sympathised with republican ideas and was elected as a councillor for the *Unión Republicana* (Republican Union) party in the municipal elections of November 1903, a position he would hold on several occasions. In the council, he enjoyed great prestige, even among his political rivals who respected his opinions on educational

matters and supported his proposals on schools policy. His propositions, influenced by the Free Educational Institute, took shape in the plans to build open-air schools, such as the one in the woods of Montjuic, conceived in 1906 but not inaugurated until 1914, the municipal school camps that were launched in 1906, or the school canteens that were created following the first one in the Hostafrancs district, which was run by the educationalist Celestina Vigneaux i Cibils. Hermenegildo Giner also believed it was vital to improve teacher training and so encouraged the provision of grants, funding for travel, and assistance for initiatives such as the private school for teachers created by Juan Bardina in 1906 as an alternative to the traditionalism of the official Escuela Normal teacher training centres (De la Arada, 2008, pp. 242-244).

The ideas of Hermenegildo Giner, the basic principles of which were shared by all of the republican movement and by many of the educationalists from the Catalanist right, shaped Barcelona City Council's culture budget proposal of 1908. A Council with a republican majority and a Catalanist minority decided to allocate part of its budget to building four school groups that were to follow principles of educational renewal and would be run by an Institución de Cultura Popular (Institute of Popular Culture). Republicans close to the Free Educational Institute were involved in setting the foundations for the project, such as Luis de Zulueta who was to be the commissioner of the new institutions, or Pere Coromines along with Joan Bardina, also with institutional influences, a friend of Giner and a

pioneer of active schools in Catalonia. The budget plan was criticised by the association of public teachers, which felt it was inappropriate to create model centres while not meeting the needs of all schools. The Church opposed it because of its lay focus and support for coeducation. The radical republicans eventually withdrew their support as a consequence of its defence of teaching in Catalan and because the project could come into conflict with the network of schools created in the republican clubs and associations. Eventually, only the Catalanist republicans still supported it and the project was finally cancelled by the civil governor who, under pressure from its opponents and following instructions from the government in Madrid, claimed that the Council's proposal exceeded its authority.

In 1916 Barcelona City Council – now with a greater presence of the Catalanist right, meaning that the republicans had lost their dominant position – created a Culture Commission, thus giving a new impulse to the creation of educational centres and activities related to childcare (Cañellas & Toran, 1982, pp. 61-85).

Despite the political changes, the Free Educational Institute's ideas, complemented by those of the New School with the support of conservatives and republicans alike, continued to shape the Council's schools policy. To support the actions of the Culture Commission, a Technical Commission was created with the participation of various professionals. Its management was entrusted to the educationalist Manuel Ainaud i Sánchez, who had travelled around Europe to discover the experiences of the New School. As well as the

educational section run by Ainaud, there were two other sections: the school architecture section, entrusted to the architect Josep Goday, and the school hygiene section, led by the paediatrician Enrique Mias. The professional standing of the commission's members helped it operate with a certain degree of autonomy, giving continuity to the municipal educational actions. Furthermore, Ainaud surrounded himself with prestigious collaborators like the poet Ventura Gassol, with whom he worked until the dictatorship of Primo de Rivera, or Artur Martorell, who assisted him during the Republic, continued his work, and preserved the testimony of the educational work of Barcelona City Council during Franco's dictatorship (Domènech, 1995).

Barcelona City Council's Culture Commission, at the suggestion of the Technical Commission, managed the *Escola del Bosc de Montjuïc*, which was created in 1914, and in 1922, also with a clear hygiene focus, founded the *Escola del Mar* on the beach in la Barceloneta. The *Escuela del Parc del Guinardó* was opened the following year, again as an open-air school. Similarly, the Council, with the occasional assistance of donations from individuals, constructed buildings of great quality and aesthetic value in the city's neighbourhoods to house centres with model educational methods.

The architect Josep Goday planned various educational centres, influenced by the intellectual, aesthetic, and educational ideology of the Catalan middle-classes. The first was the *Baixeras* school group, which opened in 1922 and was followed the same year by the small *La Farigola* school. In a brief period, other large school

groups were planned and building work started on them: *Milà i Fontanals i Lluïsa Cura*, *Ramón Llull*, *Lluís Vives* and *Pere Vila*. Other school buildings designed by Goday, either as new builds or renovations, were: *Dolors Monserdà*, *Baldiri Reixach*, *Jacint Verdaguer*, *Carles Aribau*, *Francesc Pi Margall* and *San Raimon de Penyafort*, which were completed and opened in 1931, shortly before the proclamation of the Second Republic (Gonzalez-Agàpito, Marquès, Mayordomo, & Sureda, 2002, pp. 142-143).

The Council only had powers to create special schools, such as the *Bosque de Montjuïc*, *el Mar*, or *Vilajoana* schools, but not to intervene in the running of ordinary schools. With the aim of being able to have more impact on the renewal of teaching methods, Manuel Ainaud with the government in Madrid managed the creation of a Schools Board in which the Ministry and the Council would jointly participate. This board was created in 1922 for the *Baixeras* and *La Farigola* school groups and these two centres operated as schools for practices attached to the Escuela Normal de Maestros teacher training centre. Furthermore, their teachers, who continued to be paid by the government, could be selected by the Board. This was but a small advance in control of the school system by the Catalan institutions (Domènech, 2008). With the introduction of the Second Republic, the Schools Board also started to manage the new school groups inaugurated in 1931.

Along with the construction of school groups, the Culture Commission also supported the implementation of the methods of Maria Montessori, which in that

era received much support from Catalanist groups and from the autonomous institutions they controlled (Comas and Sureda 2012). This fact caused reservations among the republicans, reservations that did not, however, prevent the Council from providing grants in 1914 for four teachers to attend the course on the Montessori method in Rome or providing resources for another course to be organised in Barcelona during 1916. In 1914 Montessori's method started to be applied in an official centre with the Council's support, run by Celestina Vigneaux and in 1916 two more municipal Montessori nursery schools were created.

The educational experimentation implemented by the Culture Commission was also reflected in the scientific basis of the special schools, which were reorganised and integrated into a single institution named the *Escola de Cecs, Sordmuts i Anormals* for children who were blind, deaf and/or mute or had learning difficulties, located in the Vilajoana house in Tibidabo (Puigdemívol, 2015). The *Escola de Bosc*, the *Escola del Mar*, and the *Guinardó* school were open-air schools prioritising physical exercise and activities in nature to improve the health of their pupils. Although they were created to help students with health problems, an educational approach with a marked renovative character was soon imposed. Several New School methods were tested in them, in particular the methods of Ovide Decroly. These open-air schools served as an example for other initiatives in Spain (Moreno, 2005, p. 214).

The will to improve Barcelona City Council's childcare provision in those

years was also expressed in the creation of school canteens in various districts of Barcelona and in the impulse of school camps, semi-camps, and bathing in the sea. With a comprehensive view of children's needs and the aim of making the city a more pleasant place for children, the Culture Commission also intervened in the design of children's playgrounds and play areas. Furthermore, the Culture Commission also took an interest in enhancing professional studies, in 1917 putting forward a plan to improve their operation² (Alberdi, 1980; Monés, 1991). Barcelona City Council also took an interest in the education of women, supervising the *Escola municipal de Labors i d'Oficis de la Dona* (municipal school for women's work and occupations) created in 1913, the activities of which were reported in a book published in 1920.

3. Barcelona City Council's publications about its educational efforts

Between 1909 and 1933 Barcelona City Council published almost seventy works including books and pamphlets about its educational activities. The most comprehensive collection is held in the Biblioteca Artur Martorell of the Instituto Municipal de Educación de Barcelona and can be consulted online³. The rest of the works, which we are aware of thanks to the lists prepared by González-Agàpito (1978) and Cañellas and Toran (1982), can be consulted in a variety of libraries (Biblioteca de Catalunya, Biblioteca Rosa Sensat, Biblioteca de Montserrat, Biblioteca Nacional de España, etc.). The table below lists the books published by Barcelona City

Council about its school and childcare activities between 1909 and 1936. The many forms, advertising leaflets, invita-

tions, and programmes for activities and events organised by the Council for the pupils have not been included.

TABLE 1. List of publications by Barcelona City Council (1909-1936).

No.	Title	Year	Lang.	Loc.
1	Report on the school camps organised by Barcelona City Council in 1906, 1907 and 1908 / Childhood Hygiene Committee	1909	Spa.	B.C.
2	Summary report on the school camps organised by Barcelona City Council in 1909	1909	Spa.	B.C.
3	Schools from District VI: history, organisation, and teaching methods [G. Gili]	1912	Cat.	Cited in Cambeiro (2006-07)
4	Municipal school for children who are blind, deaf-mute or have learning difficulties. By its staff	1912	Spa.	A.M.
5	Educational activities of the school camps and woodland schools commission	1914	Spa.	A.M.
6	Regulations of woodland schools	1914	Spa.	B. C.
7	Municipal school for children who are blind, deaf-mute or have learning difficulties	1915	Spa.	A.M.
8	The school camps of 1915	1916	Spa.	A.M.
9	Operational rules for school camps	1916	Spa.	A.M.
10	The school camps of 1916 and 1917	1917	Cat.	
11	Laying the first stone of the Baixeras school group	1917	Cat.	B.C.
12	Vallcarca streamed school for boys (laying the first stone)	1918	Cat.	A.M.
13	Municipal school canteens: January 1915 to December 1917 / [Celestina Vigneaux]	1918	Spa.	B.C.
14	Primary technical education schools	1918	Cat.	A.M.
15	The school camps of 1918 and 1919	1919	Cat.	A.M.
16	Lluís Vives streamed school (laying the first stone)	1920	Cat.	A.M.
17	Sea bathing for pupils from Barcelona's schools	1920	Cat.	A.M.
18	The nursery schools	1920	Cat.	A.M.
19	School for blind children	1920	Cat.	A.M.
20	School for deaf-mute children	1920	Cat.	B. C.
21	School for women's work and occupations: Ronda de Sant Antoni, nº 19	1920	Cat./Spa.	A.M.

No.	Title	Year	Lang.	Loc.
22	Open-air schools in Montjuic park	1921	Cat.	A.M.
23	Sea school	1921	Cat.	A.M.
24	Mobile school libraries	1921	Cat.	A.M.
25	Book of the sea	1921	Cat.	A.M.
26	Normal course in domestic teaching for female primary school teachers	1921	Cat.	R.S.
27	Normal course in technical teaching for female primary school teachers	1921	Cat.	B.C.
28	Opening of the Vilajoana schools	1921	Cat.	R.S.
29	School buildings in Barcelona. Collection of studies, plans and other preliminary materials held at City Hall to solve this problem	1922	Cat.	A.M.
30	Pere Vila i Codina school	1922	Cat.	A.M.
31	Ramon Llull school	1922	Cat.	A.M.
32	Milà i Fontanals i Lluïsa Cura schools	1922	Cat.	A.M.
33	Publications of the Culture Commission	1922	It.	A.M.
34	Reports from the Vilajoana school for children with learning difficulties: presented at the Paris Mental Hygiene Conference	1922	Fr.	A.M.
35	The mission of Barcelona City Council in the cultural work of the city [Lluís Nicolau d'Olwer]	1922	Cat.	A.M.
36	A short report on the school groups: «Ramon Llull», «Lluïsa Cura i Milà i Fontanals», «Lluís Vives» and «General M. Primo de Rivera»	1929	Spa.	A.H.C.B.
37	Short course on education for scouting and camping techniques	1930?	Cat.	B.C.
38	Exhibition by the Escola Massana managed by the Association to Encourage Decorative Arts: July-August 1930	1930	Cat.	A.H.C.B.
39	School festival held in the woodland schools of Montjuic park, in honour of the national teachers of Seville, Friday 27 June 1930	1930	Cat.	A.M.
40	School festival held in the woodland schools of Montjuic park, in honour of the national teachers of Seville, Friday 27 June 1930	1930	Cat.	A.M.
41	The work of school camps and sea baths	1930	Cat.	A.M.
42	Start of works for the «Escoles Casas»	1930	Cat.	A.M.

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No.	Title	Year	Lang.	Loc.
43	Open-air educational institutions	1931	Fr.	A.M.
44	Short advanced course for nursery teachers from the school groups	1931	Cat.	A.M.
45	Exhibition of educational essays, school works and works to complement the school	1931	Spa.	A.M.
46	The school groups of Barcelona	1931	Spa.	A.M.
47	Culture Commission publications: 1930-31	1930/31	Cat.	A.M.
48	Report on the competition between national teachers to fill the teaching posts of the new school groups	1932	Cat.	
49	A record of the festival to celebrate the opening of the canteens of the Hermenegildo Giner de los Rios school group located in the area of low-cost houses of the Turó de la Peira Horta	1932	Cat.	A.M.
50	A record of the festival to celebrate the start of work by the Hermenegildo Giner de los Rios school group located in the area of low-cost houses of the Turó de la Peira Horta	1932	Spa.	A.M.
51	A record of the unveiling ceremony of the bust of Antoni Nicolau that the Municipal Music School has erected in its building in homage to its honorary director	1932	Cat.	A.M.
52	The 16th festival of the sun / Organised by the Astronomical Society of Spain and specially dedicated to the children of the schools of Barcelona	1932	Cat.	A.M.
53	Instructions for teachers at school camps	1932	Cat.	A.M.
54	A tribute to Barcelona [Jaume Aguadé i Miró]	1932	Cat.	A.M.
55	The start of work on the Berga permanent school camp	1932	Cat.	A.M.
56	The start of work on the «Collaso i Gil» school group	1932	Cat.	A.M.
57	The opening of the Forestier nursery	1932	Cat.	A.M.
58	A brief history of the plaça de la República that the Culture Commission offers to the pupils at the city's schools to celebrate the first anniversary of the proclamation of the Republic	1932	Cat.	B. C.
59	The work of the school camps, sea baths and semi-camps for pupils from the schools of Barcelona 1906-1931	1932	Cat.	A.M.
60	Culture Commission publications: 1930-32	1930/32	Cat.	A.M.
61	The teaching work of Barcelona City Council	1932	Fr.	A.M.
62	The «Turissa» school camp	1932	Cat.	A.M.

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No.	Title	Year	Lang.	Loc.
63	Spiritual life at «Vilamar»: a lecture given by Pere Vergés in the conference room of the Casa de l'Ardiaca, on 31 October 1930 to exhibit the activities of the children at the school camps	1932	Cat.	A.M.
64	Summary of the organisation of the school holiday camps, semi-camps, and baths of 1932	1932	Cat.	A.M.
65	A visit to the new school camps	1932	Cat.	A.M.
66	Culture Commission publications: 1932	1932	Cat.	A.M.
67	Instructions for teachers at school camps	1933	Cat.	A.M.
68	The public school in Barcelona and the Montessori method	1933	Cat.	A.M.

Source: Own elaboration. [Abbreviations used: Location (LOC.); Biblioteca Artur Martorell (A.M.); Biblioteca de Catalunya (B.C.), Rosa Sensat (R.S.), Arxiu Històric de la Ciutat de Barcelona (A.H.C.B.). Languages: Catalan (Cat.); Spanish (Spa.); French (Fr.); Italian (It.).]

Most of these works were written in Catalan, although thirteen are in Spanish, one is in Spanish and Catalan, three are in French, and one is in Italian. The use of Spanish is most common in the early years, up to when the Culture Commission was created and took over publication of the works. The use of languages other than Catalan shows the will to disseminate the efforts of Barcelona City Council outside Catalonia. For example, *Rapports de l'Institut d'anormaux de Vilajoana: présenté au Congrès d'Hygiène mentale de Paris* was published in 1922, featuring texts, photographs, maps, and illustrations concerning the care people with disabilities received in the Vilajoana institute. In 1931 the work *Institutions scolaires en plein air* was published, describing the experiences of applying new methods in the open-air schools. Also, in 1932 a book was published in French with the title *L'oeuvre d'enseignement de la Municipalité de Barcelone* which was given to

attendees at the «Sixième congrès mondial de la Ligue internationale pour l'éducation nouvelle» held in Nice that year. The item published in Italian in 1922 is just a catalogue of the publications that the Culture Commission had on sale that year.

4. Photography in Barcelona City Council's publications

Photography plays a fundamental role in these publications by Barcelona City Council. In this era, technological advances made it easy to include photographs in periodical publications and books. While the photographers are only very occasionally mentioned in the corpus analysed, we know that in these years many photographers from Barcelona worked with the public institutions, which regularly commissioned photographs of public events from them. In the photographic archive of Barcelona City Council, we can find the same or similar photographs of the school

institutions taken by photographers like Jaume Ribera or his son Francesc, Adolf Zerkowitz, Pérez de Rozas, Josep Domínguez who in 1924 held a post as photographer in the City Council, Jordi Calafell, Josep María Sagarra, and Josep Gaspar, among others (Domènech, 2007).

Over a thousand photographs can be found in the body of works published by Barcelona City Council. The publications with the greatest number are: *Publicacions de la Comissió de Cultura: any 1932* (320); *L'Obra de colònies escolars, banys de mar i semicolònies per als alumnes de les escoles de Barcelona 1906-1931* (135); *L'Oeuvre d'enseignement de la Municipalité de Barcelone* (94), which is very much a photograph album; *Publicacions de la Comissió de Cultura: anys 1930-31* (88); *Institutions scolaires en plein air* (51); the remainder have fewer than fifty.

We have noted that photography takes on a highly important role in these publications, not just because of the number of images but also because in many cases the image is more important than the written text. Photographs consequently acquire an important part of the narrative burden and are used as the principal element for transmitting information in synergy with the written text. All of this leads us to believe that Barcelona City Council, in its will to disseminate its work on educational renewal, understood that with the image it would be much easier to depict, demonstrate, represent, and transmit its work and the principles that inspired it. In fact, the corpus of photographs, taken as a whole, clearly comprises a discourse showing a specific image of the model of school and educational practice that the council wished to establish. In

order to spell out the discourse to which we refer, we will now analyse the classification of photographs we find among these over a thousand photographs.

As a percentage, the largest number of photographs in the collection correspond to the ordinary activities of school camps, woodland schools, sea bathing, and nursery schools. Among these photographs, the most numerous are those relating to «health, hygiene, and physical education». The significance this type of matter acquired in the everyday life of school camps, woodland schools, and sea bathing is well known and is a matter that is corroborated by collating the number of images included in the publications. The hygiene movement, in its relations with education and the simultaneous physical development of the child as a basic principle for correct mental and intellectual development, had by then been recognised for some time and would acquire a vital role in the work of Barcelona City Council during the period analysed.

This concern with health favoured, among other things, the promotion of sport and physical activity to care for and improve the physical condition of the participating boys and girls. Consequently, within this broad category of photographs, the largest sample corresponds to images relating to physical exercise: children practising gymnastic exercises, participating in sporting games, performing physical activities on the beach and in the mountains, taking baths, performing breathing exercises, sensorial education exercises in the case of children with certain types of disability, Swedish and rhythmic gymnastics exercises, and so on.

PHOTOGRAPH 1. Title: Unos niños bañándose (some children bathing).



Source: *Banyes de mar per als alumnes de les escoles de Barcelona* («Sea bathing for pupils from Barcelona's schools») (1920), p. 16. Collection: Artur Martorell.

The way these physical activities were organised is made apparent by photographs, from which relevant information can be extracted. The photographs of schools generally show the new or eye-catching, and often represent what is least ordinary but is deemed most relevant, important, prestigious, and/or worthy of being publicised and recorded (Comas, Motilla, and Sureda, 2012). It is worth noting that in this case, while we also find staged compositions that fulfil the previous principle, there are also often images that have been taken without

excessive preparation. In other words, these are photographs that show spontaneity and reflect in a fairly real and precise way what happened during these sessions of physical activity, bathing in the sea, and exercise in natural settings. We see in these, for example, groups of children on outings to the beach running freely to enter the area allocated to them, an area identified with a letter and a flag of a particular colour. The beach was divided into sections with ropes and bunting to enable teaching staff to organise the exercise session. We see boys and

girls wearing their swimming costumes, in a lighthearted mood, and clearly enjoying the open-air exercise and the sea; the place towards which head the ropes that guide the children who are always overseen by the teachers when it is time to bathe, an activity that was understood to prevent or cure numerous illnesses (see Photograph 1). However, it was not just the sea that was used for physical exercise; there are also many photographs showing the gymnastics sessions that the children often did in the camps. As a general rule, this type of image shows a careful and well-organised positioning of the children doing exercises in unison imitating the movements shown by the teacher, displaying a clear influence of the principle characteristics of Swedish gymnastics: static positions, correct posture, and performing parade exercises, working the arms, legs, and trunk, and jumping, climbing, and doing skills exercises.

As well as physical exercise, hygiene, and health, we also find sustenance, medical inspections, bath or shower time, and times of rest and repose clearly depicted in another four categories of photographs, which are less numerous than the previous ones. Regarding the first category, it is known that one of the basic premises of all these educational initiatives was to provide healthy and appropriate nutrition to alleviate the weak condition and symptoms of illness of some children. To illustrate this, some of the publications reviewed contain photographs that show the moment when lunch is distributed (see Photograph 2) and meals at the beach. As for medical

inspections, there are some photographs in which we see the staff taking the children's measurements and weighing them. The children's bodies are covered only by their underwear — or on occasions they are even naked as can be seen in one photograph published in *Escoles a l'aire lliure del parc de Montjuïc* — as they await their turn, so the staff can obtain data that can subsequently be seen in several of the publications. Thirdly, bath time is another activity photographed, showing the importance given to this activity for improving the quality of life of the children. The photographs show communal showers where boys and girls, wearing either special clothing for this purpose or in their swimming costumes, wash themselves under the water. This type of shower is sometimes installed in enclosed interior spaces, as in the case of the open-air schools in Montjuïc park, and sometimes in partially open or roofed-over areas built on the beach, as in the case of bathing in the sea. In the latter case, we have found a photograph which reappears several times in various publications (see Photograph 3). Finally, there are photographs of rest or repose, where we see children sleeping the siesta under pine trees or canopies, or resting on loungers set out on the beach. In summary, the importance of sleep, correct cleanliness, good nutrition, and medical monitoring of the children's physical condition, everything that comprises preventive hygiene, accompanied by regular physical exercise, were some of the main variables that a clear effort was made to express in the visual discourse of the photographs published.

PHOTOGRAPH 2. Title: Repartiendo el almuerzo (distributing lunch).



Source: *Banyes de mar per als alumnes de les escoles de Barcelona* (Sea baths for the children of the schools of Barcelona) (1920), p. 17. Collection: Artur Martorell.

PHOTOGRAPH 3. Title: Banyes de Mar. Escola del mar. Les dutxes després del bany (Sea bathing. Sea school. Showering after bathing).



Source: *L'Obra de colònies escolars, banyes de mar i semicolònies per als alumnes de les escoles de Barcelona 1906-1931* («The work of the school camps, sea baths and semi-camps for pupils from the schools of Barcelona») (1932), p. 130. Collection: Artur Martorell.

PHOTOGRAPH 4. Title: Una clase en pleno bosque (A class in the woods).



Source: *Escola de Cecs* («School for the blind») (1920). Collection: Artur Martorell.

Another sizeable group of photographs depicts the educational work. This category covers all of the photographs relating to teaching-learning tasks and work. So, for example, at the Vilajoana school for blind children we can see through the image the innovative teaching process through typing sessions, Braille reading and writing classes, touch activities, and a whole group of activities aimed at sensory education in the open air (see Photograph 4). There is a large group of photographs from the open-air schools in Montjuïc park, taken in outdoor spaces and showing arithmetic, geometry, drawing, or manual activ-

ities classes (see Photograph 5). In the case of the municipal Montessori school, images were taken and published of the children in the open air performing reading, writing, and sensory shape and letter recognition exercises, working with frames and caring for domestic animals, among other activities. Each of these photographs tries to capture the essence of the particular school, what makes it characteristic, special, and different, and the modern educational methodology used to educate the children. And we believe that, from the set of photographs analysed, this objective was overwhelmingly achieved: they capture the «real

soul» that would drive each of these initiatives in their own moment. A common thread to all of them is perhaps the proof of the children's active education as they are dynamic participants in their own learning. In all the images we see

them touching, trying, putting together, taking apart, accomplishing, and so on. Meanwhile, the figure of the teacher is also depicted, very much present but with a clear secondary role.

PHOTOGRAPH 5. Title: Escuela al aire libre de Montjuic (Montjuic open-air school).



Source: *L'Oeuvre d'enseignement de la Municipalité de Barcelone* («The teaching work of Barcelona City Council») (1932), p. 64. Collection: Artur Martorell.

In this group of images there are two other basic topics: play and music. Both are very much present in the activities used by these educational initiatives and they also appear frequently in the photographs published. Play is an important way of learning, a mechanism with which to generate bodily movement, a tool with which to foster a good environment and joy amongst the children. Playing in sandpits, slippery

poles, playing in the woods, and so on, are captured in the photographs (see Photograph 6). Music, closely related to aesthetic education, is also commonly represented in images relating to musical recitals and sessions, music teaching, interpretations of songs through gestures, and everything relating to animated artistic expression, especially in the Escola del Mar and the Escola de Bosque.

PHOTOGRAPH 6. Title: Parque infantil de Hostafrancs. Juegos en los cosos de arena. Cría de animales. (Children's park in Hostafrancs. Playing in the sand pits. Raising animals.)



Source: *Els jardins dels infants* («The nursery schools») (1920), p. 33. Collection: Artur Martorell.

Buildings, spaces, and facilities are another of the most photographed topics. As the large number of these images shows, it is possible to infer a clear effort on the part of the Council to provide visual evidence of its achievements with regards to the construction, renovation and improvement of the facilities. In fact, there are some volumes in which this is precisely the aim of the municipality; for example, in 1922 it would publish *Construccions escolars de Barcelona. Recull dels estudis, projectes i altres antecedents que existeixen en l'Ajuntament per la solució d'aquest problema*, with outlines, plans, studies, drawings, and 17 photographs of the construction works of different schools; and *L'Oeuvre d'en-*

seignement de la Municipalité de Barcelone (1932), with a format very similar to a photo album in which a total of 9 photographs appear, with identifying captions, almost all of them of buildings, spaces, and facilities. The grandeur of some of the school buildings stands out, with their large porches and entrance lobbies, modern facilities and furniture, the size of the outdoor playgrounds, the height of the spaces, the light from large windows, and so on, as well a series of very well-chosen elements that transmit to the viewer a very clear image of the Council's extensive quality work in educational matters (see Photograph 7, one of the most reproduced photographs). Classrooms, canteens, kitchens, reading

rooms, dormitories, infirmaries, rooms for anthropometrics, offices, gardens, and

playgrounds also appear in the photographs.

PHOTOGRAPH 7. Title: Edificio de la Escuela del Mar (Escuela de Mar building).



Source: *L'Obra de les colònies escolars i banys de mar* («The work of school camps and sea baths») (1930), p. 7. Collection: Artur Martorell.

As well as all of this, there are group photographs, images that attempt to serve as a record of the people who formed part of a given institution at a specific time. These are found most often in the publications dedicated to school camps, always taken outdoors with a minutely calculated arrangement of the group so that all the children can be seen and identified, and with the teacher present to complete the intended image of a group identity. These images are planned, organised, and have a well thought-out arrangement of the children. As a general rule, they wear the same cloth-

ing, but their settings vary frequently (on a mountainside, in front of a car or a building, on a stairway, in the woods, in a playground, and so on). The fact is that both in photographs of ordinary activities and in group shots a common identifying thread can frequently be found: an outstanding presence of the natural environment. Open spaces, beaches, mountains, and nature provide the backdrop to most of the photographs. In this way, an issue is reflected that, for Rosa Sensat, would be of fundamental importance: the creation of initiatives with not just hygienic or therapeutic ends, but also as a form

of introducing students to the study of the natural environment (Bernal, 2000, p. 177).

Finally, there is a varied series of photographs and a smaller number that correspond, for example, with portraits

(Josep Collaso i Gil, Pere Vila i Codina, Lluís Marian Vidal, Evarist Fàbregas i Pàmies, Eugeni Maëder, and Hermenegildo Giner de los Rios) and with moments relating to school transport (see Photograph 8).

PHOTOGRAPH 8. Title: Los pequeños escolares son transportados gratuitamente a las escuelas de los suburbios (The little children are transported for free to the schools in the suburbs).



Source: *L'Oeuvre d'enseignement de la Municipalité de Barcelone* («The teaching work of Barcelona City Council») (1932), p. 46. Collection: Artur Martorell.

5. Conclusions

Barcelona City Council's publications about its educational work between 1909 and 1936 form a very important historical-educational record. The wealth of its written and visual content is undeniable, and the photographs are excellent sources for research into the history of schools, educational renewal initiatives, and the development of childcare practices in general.

The photographs in this collection clearly represent a very specific way of conceiving public schools and centres intended to improve the physical, hygienic, welfare, and health conditions of a major part of Barcelona's children in the first third of the twentieth century. As we have noted on other occasions, the photographs in the publications studied exemplify the efforts of the Culture Commission of Barcelona City Council to construct a very

specific narrative discourse, in this case one relating to educational renewal and to implementing innovative actions. The set of photographs form an iconic discourse that corresponds with the principles of the New School that the creators of the education policy of Barcelona City Council in those years had assumed completely.

Aspects like the educational importance of the natural environment, the need to have decent and appropriate facilities, the importance attributed to physical exercise, play, and spontaneous activity by the students, a new understanding of the role of the educator, the need for an integral education that includes aesthetic and civic education, the support of co-education, attention to diversity and people with disabilities, and the value of basing educational practice on experimentation are principles that are expressed in the photographs included in the publications of Barcelona City Council that we have studied.

Notes

- ¹ This project was carried out in the framework of the R&D project, reference EDU2014-52498-C2-2-P, «La fotografía publicada como representación de los cambios y las continuidades en la cultura escolar (1900-1970)» (Photography published to represent the changes and continuities in educational culture, 1900-1970), funded under the National Programme for Fostering Excellence in Scientific and Technical Research, National Sub-Programme for Creating Knowledge, in the framework of the National Plan for Scientific and Technical Research and Innovation 2013-2016 (Ministry of Economy, Industry, and Competitiveness and the Spanish Research Agency, FEDER and European Union funds).
- ² The reform proposal and its rationale are included in the book *Institucions d'ensenyament tècnic primari* (1918).

- ³ See: <http://mdc.cbuc.cat/cdm/search/collection/tasca>

References

- Alberdi, R. (1980). *La formación profesional en Barcelona. Política, pensamiento, instituciones 1875-1923*. Barcelona: Ediciones Don Bosco.
- De la Arada, R. (2008). El pressupost de cultura de l'Ajuntament de Barcelona de 1908: un referent pedagògic. *Temps d'Educació*, 34, 241-250.
- Bernal, J. M. (2000). De las escuelas al aire libre a las aulas de la naturaleza. *Áreas: Revista internacional de ciencias sociales*, 20, 171-182.
- Cambeiro, J. A. (2006-2007). Colònies escolars: anàlisi històrica d'una aventura pedagògica (1876-1920). *Educació i Història: Revista d'Història de l'Educació*, 9-10, 193-243.
- Cañellas, C. y Toran, R. (1982). *Política escolar de l'Ajuntament de Barcelona 1916-1936*. Barcelona: Barcanova.
- Comas, F., & Sureda, B. (2012). The photography and propaganda of the Maria Montessori method in Spain (1911-1931). *Paedagogica Historica*, 48 (4), 571-587.
- Comas, F., Motilla, X. y Sureda, B. (2014). Pedagogical innovation and music education in Spain: Introducing the Dalcroze method in Catalonia. *Paedagogica Historica*, 50 (3), 320-337.
- Comas, F., Motilla, X., & Sureda, B. (2011). Iconografía y representación gráfica de las colonias escolares de la Diputación de Baleares. Una aproximación a través del análisis de las fotografías de las memorias. *revista española de pedagogía*, 250, 445-462.
- Comas, F., Motilla, X., & Sureda, B. (2012). Escuela y fotografía, entre el testimonio y la construcción del discurso narrativo. En *III Foro Ibérico de Museismo Pedagógico - V Jornadas Científicas SEPHE* (pp. 405-417). Murcia.
- Domènech, S. (2008). *Els alumnes de la República: els grups escolars del Patronat Escolar de*

- l'Ajuntament de Barcelona*. Barcelona: Publicacions de l'Abadia de Montserrat.
- Domènech, S. (1995). *Manuel Ainaud i la tasca pedagògica a l'Ajuntament de Barcelona; pròlegs de Marta Mata i Garriga i Josep M. Ainaud de Lasarte*. Barcelona: Publicacions de l'Abadia de Montserrat, Biblioteca Abat Oliba.
- Domènech, S. (dir.), Torrella, R., & Ruiz, M. (2007). *Barcelona fotografiada: 160 anys de registres i representació. Guia dels fons i col·leccions de l'Arxiu Fotogràfic de Barcelona*. Barcelona: Ajuntament de Barcelona.
- Gonzalez-Agàpito, J., Marquès, S., Mayordomo, A. y Sureda, B. (2002). *Tradició i renovació pedagògica. 1898-1939*. Barcelona: Publicacions de l'Abadia de Montserrat.
- González-Agàpito, J. (1978). *Bibliografia de la renovació pedagògica i el seu context (1900-1939)*. Barcelona: Universitat de Barcelona.
- Matas i Tort, J. (1977). *El Presupuesto Extraordinario de Cultura de 1908 del Ayuntamiento de Barcelona en el marco de la renovación escolar de Catalunya*. (Doctoral dissertation directed by Emilio Giralt Raventós). Facultad de Geografía e Historia, Universidad de Barcelona, 3 vols.
- Monés i Pujol Busquets, J. (1991). *Les escoles professionals municipals 1890-1990*. Barcelona: Ajuntament de Barcelona.
- Monográfico Fotografia i història de l'educació. (2010). *Educació i Història*, 15.
- Moreno, P. L. (2005). Renovación pedagógica y compromiso social en la edad de plata de la Pedagogía española: Félix Martí Akpera (1898-1920). *revista española de pedagogía*, 231, 203-222.
- Pérez-Bastardas, A. (2008). El Pressupost extraordinari de Cultura de 1908: entre solidaritat municipal i Solidaritat Catalana. *Butlletí de la Societat Catalana d'Estudis Històrics*, 19, 71-84.
- Pozo Andrés, M^a del M. del. (2006). Imágenes e historia de la educación: construcción, reconstrucción y representación de las prácticas escolares en el aula. *Historia de la Educación. Revista Interuniversitaria*, 25, 291-315.
- Puigdel·lívol, I. (2015) Escola de Cecs, Sordmuts i Anormals de l'Ajuntament de Barcelona (1911-1939): Una experiència truncada. *Historia de la Educación. Revista Interuniversitaria*, 26, 161-183.
- Sureda, B., Mottilla, X., & Comas, F. (2014). La revista *Feminal*: fotografia y visualización de la aportación femenina a la renovación educativa en Cataluña (1907-1917). *Historia de la Educación*, 33, 215-230.

School leadership and school management in underprivileged areas

Liderazgo pedagógico y dirección escolar en contextos desfavorecidos

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Abstract:

This study aims to raise awareness of the need for headteachers to be able to practice school leadership, especially in schools in underprivileged areas. A mixed methodology approach was used, including a survey of a sample of 282 teachers and interviews with 14 headteachers from disadvantaged schools in western Andalusia. Most of the headteachers interviewed display good school leadership, but there is still a tendency towards so-called academic freedom and individualism in teaching practice. The age of the teachers and their length of experience influence headteachers' supervision of teaching. Headteachers should be given greater powers and specific continuous training should be provided for those in charge of disadvantaged schools to enable them to implement collaborative culture.

Keywords: Leadership, teaching quality, poverty, headteacher.

Resumen:

El objetivo de este estudio es coadyuvar a la toma de conciencia sobre la necesidad de que los directores puedan ejercer un liderazgo pedagógico, especialmente en escuelas situadas en contextos desfavorecidos. Utilizamos una metodología mixta, efectuando una encuesta a una muestra de 282 docentes y entrevistando a 14 directores, de los centros de difícil desempeño de Andalucía Occidental. La mayoría de los directores investigados ejercen buenas prácticas de liderazgo pedagógico, pero sigue preponderando la mal entendida libertad de cátedra y el individualismo en las prácticas docentes. En la supervisión de la enseñanza por parte del director influyen la edad del profesorado y su antigüedad. Se deben dar mayores competencias a los directores y dotar de una formación continua específica a aquellos que dirigen este tipo de centros, que les permita instaurar culturas colaborativas.

Descriptores: Liderazgo, calidad de la educación, pobreza, director del centro.

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1. Theoretical framework

Many pieces of research emphasise the important influence of a school's management on its students' performance and so on improving the school (Pont, Nusche, & Moorman, 2008; Heng, Gurr, & Drysdale, 2015; Leithwood and Sun, 2015; Day, Gu, & Sammons, 2016; Vanblaere & Devos, 2016). It has even been said that to ensure schools provide good learning for all of their students, headteachers must exercise true leadership that goes beyond their managerial role (Bolívar, 2010), as it is well-known that while headteachers exercise primarily formal authority in their schools, this does not necessarily mean that they exercise leadership (Llorent & Oria, 1998).

Leadership can be found at all levels of the school's organisational structure and not just in the figure of the headteacher, but it should not be forgotten that the headteacher is the school's primary leader and has a role that is vital for creating, distributing, and maintaining distributed leadership (García & Moral, 2015).

Of all of the styles of educational leadership that have proven effective in improving schools, the one known as school leadership is especially noteworthy. This term was coined in the 1970s by the «effective schools» movement after evidence had built up that made it apparent how leadership by the management leads to an improvement in the results obtained by the students (Leithwood & Sun, 2015). It moves from a focus centred on a bureaucratic style of management that emphasises organisation, to one more concerned with teaching (Murillo, 2006). The headteacher exercises leadership skills

and creates conditions that make it possible to improve the teaching practice of the teaching staff and, consequently, the students' academic results (Bolívar, 2010), and the headteacher's influence on the motivation of the teachers and the organisational culture of the school is especially important (Egido, 2013). In essence, this requires a headteacher who is primarily devoted to improving the educational processes carried out in the school (Aramendi, Teixidó, & Bernal, 2010).

Many studies have shown the positive impact of school leadership in the learning achievement by the student body (Seashore, Dretzke, & Wahlstrom, 2010; Mumphord, 2013; Leithwood & Janzti, 2008; Robinson, Lloyd, & Rowe, 2008; Shatzer, Caldarella, Hallam, & Brown, 2014). This impact increases considerably in schools located in underprivileged areas (Leithwood, Louis, Anderson, & Wahlstrom, 2004) and so we can infer that the impact of the quality of the headteacher's efforts on students' results increases as the proportion of students with limited resources in the schools increases (Instituto Nacional de Evaluación Educativa, 2013). Therefore, while school leadership is an essential requirement for improving any school, its impact is more apparent in more vulnerable schools (Anderson, 2010).

The high turnover of teaching staff is especially important among the many difficulties faced by schools working with students at risk of social exclusion¹ (Muijs, Harris, Chapman, Stoll, & Russ, 2004), with headteachers finding it very hard to attract and keep well-qualified and experienced staff (Mulford *et al.*, 2007). This

situation is being mitigated in some Andalusian provinces (such as Huelva and Seville) following the creation of «specific posts» by the Regional Education Boards². The training needs of teaching staff in these centres are also of great importance (Amores, Luengo, & Ritacco, 2012).

These situations, along with the lack of knowledge about which characteristics of effective leadership these schools' headteachers must put into practice (Ngcobo & Tikly, 2010), inspired us to study school leadership by the headteachers, as we regard it as an important mechanism for improving learning by students with the greatest need.

We agree with authors such as Elmore (2010) that, if the mission of any school is teaching, the schools' management must focus on everything that makes it possible to improve the teaching-learning processes of the students, a strategy that is even more vital in schools where students are at risk of social exclusion (Zembylas & Lasonos, 2016). Essentially, it has been shown that student learning in schools with these characteristics is more successful when headteachers perform their role with the teaching-learning processes and the professional development of their teaching staff as the main goal (Muijs *et al.*, 2004). Furthermore, the headteachers' ability to motivate the teaching staff is very important given the need for a greater commitment and capacity for sacrifice by these teachers (Murillo, Krichesky, Castro, & Hernández, 2010).

However, it is also important to consider the school management model in Spain, which has historically been sub-

jected to a series of upheavals according to the political force in power with a rapid succession of education laws (Montero, 2010) that have still not attained a desired consensual model (Gairín & Castro, 2010). This model lacks a professional character and contrasts with most countries in Western Europe because of its limited autonomy (Eliseo, 2013).

In effect, school management in Spain has moved from an essentially bureaucratic model with a clear administrative focus, to being a post that is democratically chosen by representatives of the whole of the educational community. Therefore, the teaching staff and in particular the school council are the collegiate bodies that control and administer the centre, taking decisions that in other countries are taken by headteachers (Oria, 2009). This gives the management an eminently democratic character, but this model often becomes corporate in character owing to the limited real participation by the educational community in the election of the headteacher, with the result that this process is, to a great extent, in the hands of the teaching staff (García & Caballero, 2015). This situation means that, to some extent, headteachers depend on the centre's teachers. This situation of dependency, which could affect their independence, is why this model has been accused of being incompatible with true professionalisation in school management (Intxausti, Joaristi, & Lizasoain, 2016). In fact, the deficiencies of this school management model regarding educational leadership have been made apparent in several studies, such as the prestigious TALIS report (2013) which states that headteachers in Spain

supervise the teaching process in the classroom less than the OECD average and that a significant proportion have never received training in school leadership. In addition, in the TALIS report (2009), Spanish headteachers obtained the lowest school leadership score in the study.

In addition to this corporate model of school management, there are several traditional practices established in the culture of our schools that undoubtedly make it difficult for headteachers to exercise school leadership, namely individualism among teachers or a weak school ethos (Zaitegui, 2011), something Bolívar, López, and Murillo (2013) have described as the «Achilles heel» of school leadership in Spain. These circumstances primarily hamper the development of two practices normally associated with school leadership: supervision of teaching in the classrooms and collaboration with other schools.

Several years ago, the difficulties that headteachers of Spanish schools face for performing supervision of teaching were highlighted by Gago (2004), when he established that teaching observation was the second least performed activity by headteachers in secondary schools. It is, as Gago notes, a problematic function as it involves a head-on «collision» with a deeply-rooted tradition in our institutional culture based on the «academic freedom» of teaching staff. The study recently performed by Murillo and Hernández (2015) showed that Spanish headteachers dedicate more time to administrative tasks to the detriment of tasks relating to the curriculum and teaching. Similarly, López, García, Oliva, Moreta, and Bellerín

(2014) showed how teaching observation and the analysis of the projects that the teachers prepare were the activities least often performed by the headteachers.

On the other hand, this widespread individualism in teaching practice makes it difficult to establish collaborative relationships with other schools. This is even more worrying when current studies show the numerous positive outcomes of creating networks of schools, whose ease of sharing experiences makes them especially useful for disadvantaged schools (Zikhali & Perumal, 2016; Scanlan, Kim, Burns, & Vuilleumier, 2016). This lack of collaboration with other schools is identified in the TALIS report (2013) as a clear area for improvement in Spain, something corroborated by research such as that by García and Caballero (2015) who conclude that around half of Spanish headteachers participate little or not at all in schools networks, even though they consider it to be an important function that they should perform more frequently.

The functions that education legislation has traditionally attributed to the school's management in Spain have, in practice, tended to give it a role that is eminently administrative in character. Furthermore, until the enactment of the Organic Education Law of 2006 (*Ley Orgánica de Educación*), there was no reference at all to the competencies of headteachers in the educational leadership of the school: «Exercise educational leadership, promote educational innovation, and promote plans to meet the objectives of the school's educational project» (sec. 132. c). Subsequently, the current Organic Law regarding the Improvement

of Quality in Education (*Ley Orgánica de Mejora de la Calidad en Educación*) of 2013, states that headteachers should be given the opportunity to exercise stronger school leadership and management (preamble VII), but as government bodies intervene strongly in the selection of headteachers (sec. 135) they are given an administrative or managerial leadership profile.

Faced with the recent increase in population segments at risk of social exclusion in Spain and more specifically in Andalusia (Instituto Nacional de Estadística, 2014), our school system should guarantee quality teaching that leads to greater equality of opportunities for these groups and, accordingly, reinforce the schools that cater to them.

Most of the pieces that have concentrated on studying school management in underprivileged areas of Spain — centres that in Andalusia are currently called disadvantaged schools — have examined what is known as «inclusive leadership» and attention to the diversity of the student body by headteachers (Gómez, 2012). On these lines, what is known as «leadership for social justice» is becoming increasingly important. This promotes a comprehensive school model which values diversity and combats inequality with the aim of promoting a more just society (García & Moral, 2015), without undermining the importance of pedagogic improvements that guarantee optimal teaching-learning processes for students with the greatest needs (González, 2014), featuring processes of ongoing reflexion and debate between all members of the school (León, 2012).

Similarly, other pieces of research into leadership in underprivileged areas have underlined good management practices, such as taking care of the atmosphere and interpersonal relationships (López, 2010), developing a professional culture of collaboration and strengthening family-school relationships (Fernández & Hernández, 2013), and favouring relationships with community associations (Jiménez, 2012), among others.

The most recent research points towards school leadership, mainly exercised by the headteacher as the school's principal leader, as encouraging better academic results by the students. This influence is greater, and so needed more, in schools located in disadvantaged areas.

Given the limited amount of research carried out on headteachers' school leadership in underprivileged areas and the almost total absence of it considering Spain, we believe it is important and necessary to draw attention to the presence of a leadership style which we believe is very important for improving the academic results of the students and to contribute to its implementation.

2. Objectives

The general objective of this study is to contribute to boosting awareness of the need for headteachers to be able to exercise school leadership, especially in schools located in underprivileged areas. This aim is approached through the following specific objectives:

1. Establishing headteachers' school leadership practices in relation

to supervision, training, and collaboration with other schools.

2. Identifying possible factors associated with the opinion of the teaching staff about the school leadership of their headteachers and their training.

3. Analysing the possible training needs of teaching staff that further justify the influence of school leadership in them.

3. Method

We used a mixed methodology including quantitative and qualitative techniques. Specifically, we used a questionnaire and a semi-structured interview. We designed an ad hoc questionnaire to ascertain the opinion of teaching staff from the schools that comprise our sample about the school leadership by their headteachers, and we also performed semi-structured interviews with the headteachers. In this way, we complemented the information obtained, covering in greater depth the phenomenon that

is the object of study (Hueso & Cascant, 2012).

4. Participants

The population comprises teachers who deliver classes in public early-childhood and primary schools that are currently classified as being disadvantaged or that benefit from so-called compensatory plans in the capitals of the provinces of western Andalusia.

These data were requested from the Department of Education of the Regional Government of Andalusia (2016), giving a population of 955 teachers (document provided by the Department of Education). Using the formula for estimating proportions for finite populations (Albert, 2007) and establishing a confidence level of 95% (significance level $\alpha = 0.05$) with a margin of error of 5%, we obtained a sample of 282 teachers. We used proportionate stratified sampling, as shown in Table 1.

TABLE 1. Study population and sample.

Population and sample					
Provinces	No. of centres	No. of teachers	% of the total	Sample P value	Rounded
Seville	27	601	62.931937	177.5435812	177
Huelva	6	108	11.308901	31.90467016	32
Cordoba	11	229	23.979058	67.64971728	68
Cadiz	1	17	1.7801047	5.022031414	5
Total	45	955	100	282.12	282

Source: Own elaboration.

We also interviewed 14 headteachers from the centres studied. The interview process ended when we started to reach theoretical saturation, obtaining similar information that did not add anything relevant to what was known (Valles, 2014).

5. Instruments

The instruments used in this research are a questionnaire and a semi-structured interview.

The questionnaire was arranged in three blocks of questions, with the aim of collecting the teaching staff's views on three broad areas of the school leadership by the headteachers of their centre: A. teaching supervision, B. teachers' professional development, C. external openness. We used a Likert-type scale with five options for answers (1=never, 5=always).

Before preparing the definitive version, we ran a pilot study of the ques-

tionnaire, administering it to 60 teachers from centres with the same characteristics. These centres were not included in the final sample. To complete and guarantee the validity of the questionnaire we used two processes:

We used an appraisal by external experts specialising in research methodology and school leadership. This enabled us to improve the relevance and clarity of the proposed items for the questionnaire.

In addition, for construct validity we used the Kaiser-Meyer-Olkin test for sampling adequacy and Bartlett's sphericity test, obtaining results that demonstrate its pertinence for performing the exploratory factor analysis. This analysis was performed using the principal component analysis extraction method for each dimension of the questionnaire, obtaining saturations with a value greater than 0.40 in each factor. In Table 2 below we show the results of the construct validity.

TABLE 2. Construct validity.

Dimension	Kaiser-Me- yer-Olkin test	Bartlett test			Saturation coefficients	% variance
		÷ 2	df	Sig		
1	.704	64.865	3	.000	.878-.884-.818	74.022%
2	.712	42.546	6	.000	.825-.797-.592-.674	53.032%
3	.726	81.049	10	.000	.805-.770-.700-.713-.583	51.600%

Source: Own elaboration.

With regards to reliability, we used Cronbach's alpha coefficient of internal consistency. We obtained results close

to unity for both the total of the scale (.884) and for the three dimensions of the questionnaire (.823, .674, .762).

Finally, we prepared a semi-structured interview, combining the flexibility of structured interviews with directionality as an instrument to obtain data on a specific topic (Cubo, Martín, & Ramos, 2011).

The interview comprised a series of introductory questions such as sex, age, years of experience in the post, and questions about the procedure for accessing the management of the centre. In addition, considering the objectives of our study, we focussed on the school leadership practices for which we had decided it was important to examine the information obtained with the questionnaire in greater depth.

After preparing the interview guide, we planned the sessions so that they could be carried out with sufficient time, guaranteeing the full confidentiality of the data provided. Once they had been carried out, we set up the system of categories according to the answers.

6. Procedure

After the data collection instruments had been prepared, we proceeded to collect data during the 2015-16 academic year. To ensure greater standardisation in the collection of information through the interviews, they were all performed

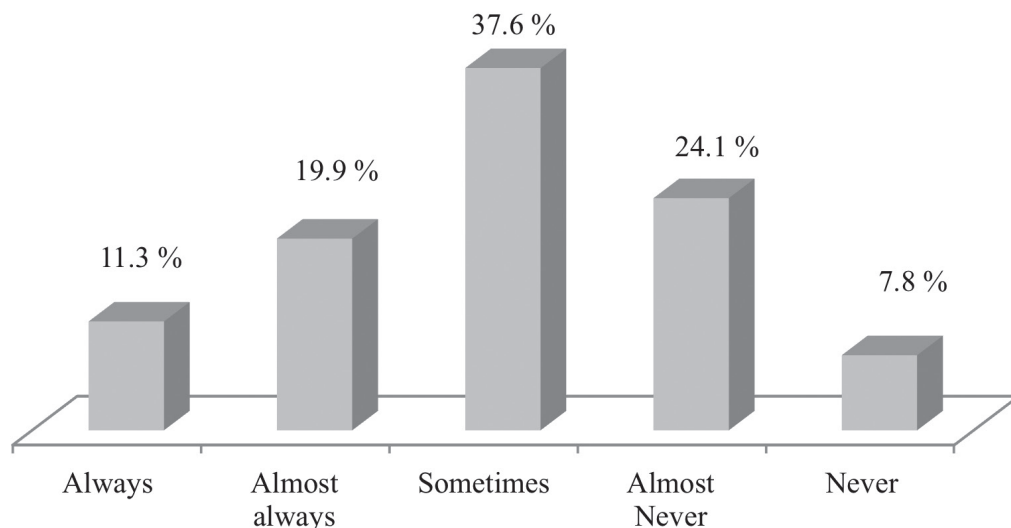
by the same person, an education graduate specialising in school management. This made it possible to standardise the interviews and go into greater depth in some of the information provided by the informants. The quantitative data was analysed using the SPSS v. 23 program, after preparing the corresponding codebook, using descriptive and inferential statistics between some variables, using the non-parametric Mann-Whitney U, Kruskal-Wallis H, and chi-squared tests. The Atlas.ti v. 6.2 program was used for analysing the qualitative data, using a system of categories we developed following an inductive process and concept maps that graphically represent the codes used, their frequency, and the relationships between them.

7. Results

7.1. School leadership practices related with teaching supervision

The results of the opinions of the teachers surveyed are shown in Figure 1, based on the assumption that supervision of teaching in the classroom by headteachers is an important school leadership method for improving teaching practice and, consequently, students' learning.

FIGURE 1. Headteachers supervise the centre's teachers or perform observations of their teaching activity in the classroom to improve teaching-learning.

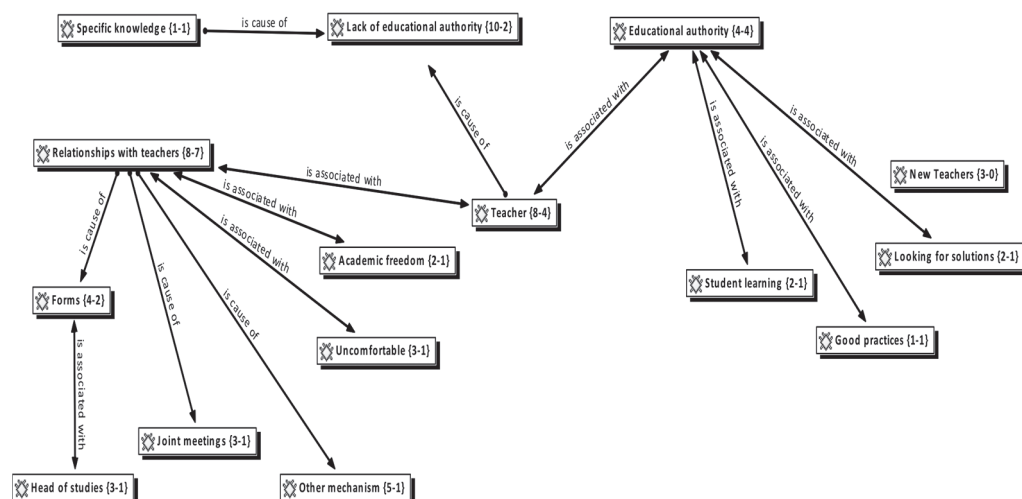


Source: Own elaboration.

As we can see, there is a wide range of responses ($SD = 1.097$), which is related to the information collected in the

interviews with the headteachers. This is shown below in the following concept map (Figure 2):

FIGURE 2. Concept map of teaching observations by headteachers.



Source: Own elaboration.

In effect, most headteachers say that they do not perform any supervision in the classroom; meanwhile, a smaller percentage state that they do perform it and consider it to be genuinely important.

We therefore detected a serious impediment to headteachers of the centres analysed putting school leadership into practice when we established that:

- Most headteachers say they do not feel that they have sufficient pedagogic authority to supervise the teaching activity of the teachers in their centre, and even less to criticise them or tell them to modify their teaching practice at a given moment.

- They believe that to have this authority it would be necessary for them to have specific educational knowledge that they do not have.

- They feel that they lack authority as each teacher has academic freedom in their daily activity, and they state with some frequency that «every teacher has their own book» (I.13)³.

- On the whole, they confuse supervision of teaching in the classroom with the confidence they have in the teaching staff, seeing it as a form of questioning whether their colleagues are fulfilling their duties.

- They believe that it is a rather uncomfortable question that might negatively affect their relationship with the teachers from the centre, and that they could even be seen as questioning the professionalism of the teachers.

Furthermore, they believe that as they are part of the centre's teaching staff

—albeit temporarily removed from it—and they have similar training to the rest of the teaching staff, it might affect their relationship with them if they were to supervise their teaching activity: «They will no longer see me as a colleague and the thing is I am, I have the same qualification and I am a primary school teacher. I have a certain role, but next year I will leave management and return to the classroom» (I. 14).

However, all of the headteachers interviewed paradoxically think it is necessary to carry out this school leadership practice and believe that their priority is to improve teaching-learning processes in their centre.

In contrast, headteachers who do supervise teaching by the staff at their centre, see this activity as something vital for this type of school, in particular supervision relating to guiding and advising new teaching staff who join the centre, and relating to detecting good practices among teaching staff so they can be shared with the rest of their colleagues.

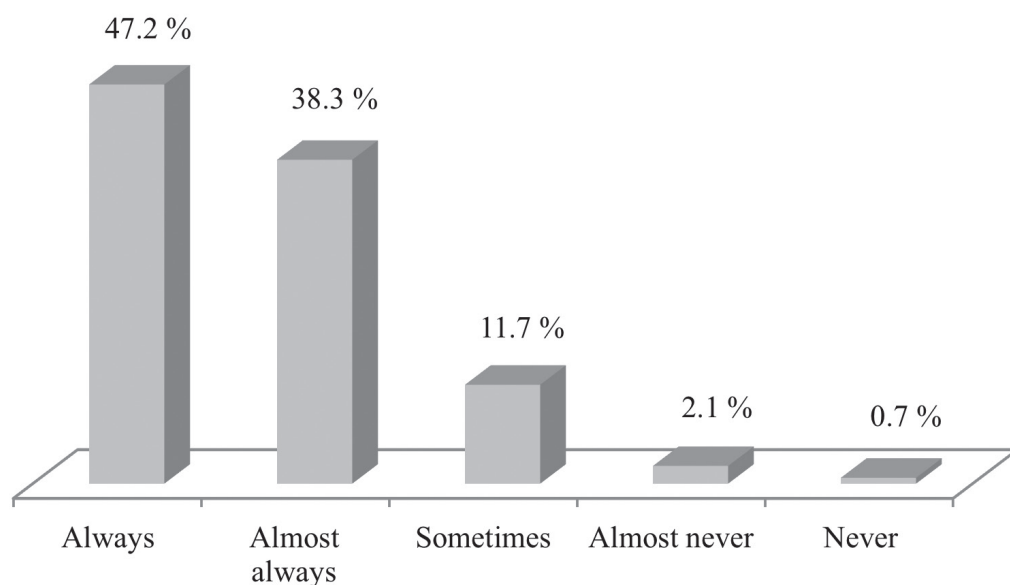
These headteachers, unlike those discussed above, decouple this practice from domineering and authoritarian attitudes and try to find joint solutions: «The thing is we look for solutions: How about we do this? How many options do we have? I always say to them, what I say to you is an idea, not an order. But if you have another idea, go ahead with it» (I.8).

They therefore use this method as an important tool to guarantee what is truly important: students' learning. They do not consider whether the teachers might feel uncomfortable or if their relationship

with them might suffer. They tend to establish horizontal relationships with the teaching staff and establish feelings of community in their school, convincing the teaching staff from their centre that it is a practice that is beneficial for everyone.

In Figure 3 we show the results of the opinion of the teaching staff about the knowledge the headteachers have about their lesson plans and evaluation procedures.

FIGURE 3. Knowledge of lesson plans and evaluation procedures of teachers in their centre.



Source: Own elaboration.

Most of the teachers believe that the headteachers from their centre are often up to date with these practices.

We believe it is important to establish whether there are significant differences in the opinion of the teaching staff regarding headteachers' supervision of their teaching in the classrooms according to

the age of the teachers, as well as whether headteachers are familiar with the lesson plans and evaluation procedures of the teachers according to how many years' experience they have as teachers in the centre. To establish which statistical test to use to perform the comparison of means, we performed the Kolmogorov-Smirnov goodness of fit test (Table 3).

TABLE 3. Kolmogorov-Smirnov goodness of fit test.

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Supervision of teaching in the classroom by headteachers	.203	282	.000	.912	282	.000
Knowledge of teachers' lesson plans and evaluation procedure	.281	282	.000	.774	282	.000

Source: Own elaboration.

For both variables, we obtained a significance level of less than 0.05 ($p = .000 < .05$), which led us to affirm the existence of significant differences between the distribution observed and the normal distribution. Therefore, we used a non-parametric statistical test to perform the analysis, specifically the Kruskal-Wallis H test for k independent samples.

After performing this test, we obtained significance levels below 0.05 ($p = .004$ and $p = .029 < p < .05$), and so the null hypothesis of equal means was rejected and the alternative hypothesis was accepted, affirming with a confidence level of 95% that there are statistically significant differences in both cases. The results of this test are shown below in Table 4.

TABLE 4. Results of the non-parametric Kruskal-Wallis H test.

	Age of teaching staff	N	Mean rank
Teaching supervision in classroom by headteachers	Under 25	6	217.3
	25-35	88	157.6
	36-45	90	125.8
	46 or older	98	136.8
	Total	282	
Knowledge of teaching staff's lesson plans and evaluation procedures	Years teaching at centre	N	Mean rank
	Fewer than 5	157	135.7
	5-10	81	161.1
	11-15	23	133.4
	More than 15	21	117.4
	Total	282	

Source: Own elaboration.

Teaching staff aged under 25 are more likely to believe that the headteachers of their centre supervise their teaching in the classroom to a greater degree than those who are aged between 36 and 45. Similarly, longer serving teaching staff are less likely to believe that headteachers are familiar with their lesson plans and evaluation procedures than those who have spent fewer years teaching in the centre.

The interviews with the headteachers corroborate these results. In them, the headteachers told us that they give greater importance to supervising the teaching practice with newer teachers, arguing that these staff members require more guidance to teach effectively, both with students and with students' family members. They also state that they give less attention in these aspects to staff who have spent more years teaching in the centre, as they trust in their experience and professionalism.

8. Headteachers' promotion of training by teaching staff and professional development

The promotion of professional development of teachers through training is another of the school leadership practices considered effective (Leithwood & Jantzi, 2008).

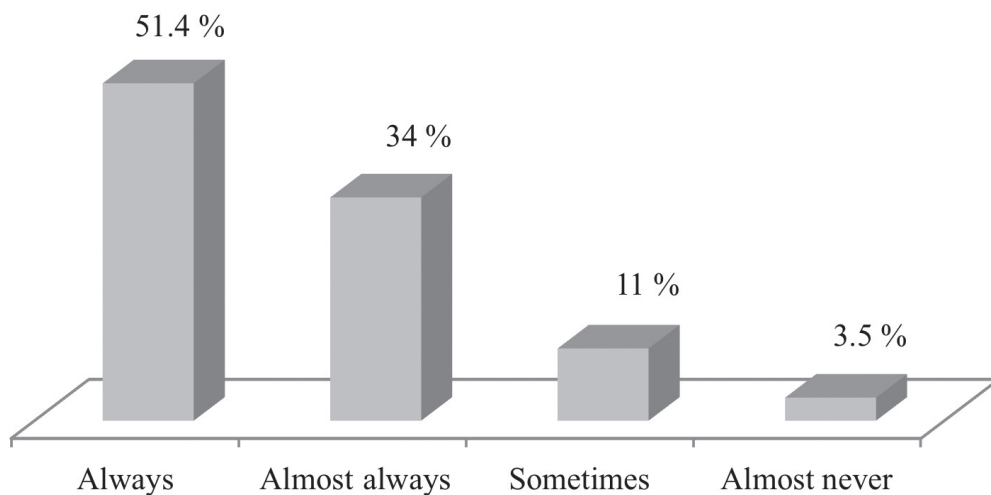
Firstly, we wanted to establish the teaching staff's view of the initial training they received. It is important to note that 90.4% of the teaching staff believe it is necessary to receive more specific initial training to prepare them genuinely to work optimally in this type of

centre, as their characteristics and demands are very different from those of a more normal setting. Furthermore, using the chi-squared statistical test we established that they hold this view independently of their initial training and their years of experience as teachers, obtaining levels of significance greater than 0.05 ($p = .069$ and $p = .452 < p = .05$) in both cases.

Examining this aspect in greater depth showed that a large part of the teaching staff (44.9%) identify intervention with the student's families as one of the main problem areas in their training. This is followed in order of importance by aspects related to solving conflicts and coexistence (20.2%) and attention to diversity (12.9%). To a lesser extent they identify emotional education (6.7%), innovative teaching methods (6.2%), education in values and social skills (3.2%), and finally carrying out teaching practices in this type of institution during their initial training (2.6%).

Based on these results, we believe that in this type of schools it is, if possible, even more important for the school's management to guide and advise teachers joining the centre. Figure 4 shows that a large majority of the teaching staff feel that the headteachers of their institutions provide guidance and training to new teachers. These results are ratified by the importance the headteachers give this question in their interviews: «You have to guide and advise new teachers continuously, for example, with the subject of the families. You have to give them guidelines» (I.11).

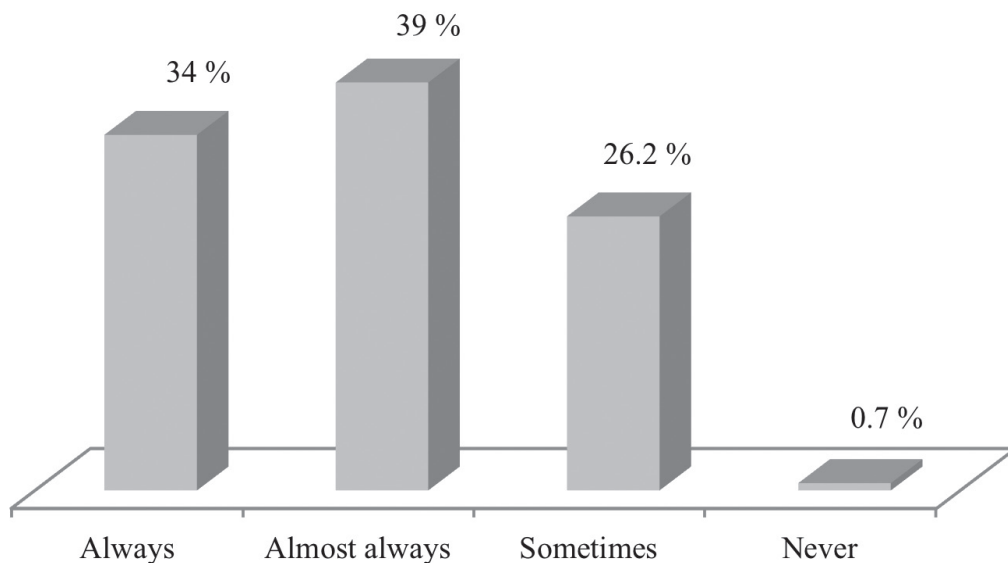
FIGURE 4. Provides guidance and training to teachers who have recently joined the centre (new).



Source: Own elaboration.

Figure 5 shows the teaching staff's views of the suggestions the headteachers make to them about carrying out continuing training activities.

FIGURE 5. The headteacher suggests that teachers carry out continuous training activities.



Source: Own elaboration.

As this shows, a large majority of the teaching staff consider that the headteachers encourage their continuing training reasonably frequently. Nonetheless, it is worth noting that despite this being a function that is highly valued by teaching staff, many of them (26.2%) believe that the headteachers do it only sometimes.

Furthermore, it was established with a confidence level of 95% that

there are statistically significant differences in teachers' perception of whether their headteacher suggests that they perform continuous training activities according to whether they consider more specific training to be necessary. Consequently, once the normality of the sample was established, the Mann-Whitney U test was used, obtaining the result $p = 0.01 < p = 0.05$ (Table 5).

TABLE 5. Non-parametric Mann-Whitney U test.

	The headteacher suggests that teachers perform continuous training activities.
Mann-Whitney U	2469.500
Z	-2.569
Asymptotic significance (2 sided)	.010

Source: Own elaboration.

In this way, it was established that the teachers who believe that more specific initial training is necessary for working in these centres also believe that their

headteacher suggests that they carry out continuous training activities more than the teachers who do not regard it as necessary (Table 6).

TABLE 6. Results of the Mann-Whitney U test.

	Do you think more specific initial training is necessary for working in these centres?	N	Mean rank	Rank sum
The headteacher suggests that the staff carry out continuous training activities.	Yes	255	145.35	37055.50
	No	27	105.46	2847.50
	Total	282		

Source: Own elaboration.

The following concept map (Figure 6) is based on the interviews with the headteachers.

FIGURE 6. Concept map of teachers' professional development by the headteacher.



Source: Own elaboration.

We established that headteachers promote training of teachers at their centres, either by suggesting to them personally the thematic areas they believe might be of interest for the centre as a whole, or by constantly disseminating the lines of training that they receive from the CEP (Professional Studies Centre), businesses, or associations, so that the teachers themselves decide on the areas in which they want or need training.

The training lines proposed at the centre-level for all staff often derive from the joint assessments where the results of the centre's students are analysed. They reveal whether the objectives proposed as

targets have been reached, and they propose areas for action where training for the teaching staff is required to deliver an improvement in teaching-learning.

Few of the headteachers interviewed used mechanisms to encourage the centre's teaching staff to carry out continuous training and so improve their skills for working in these schools, other than each teacher individually attending a course offered by an external body. As an example, we cite a pair of good practices matching in different centres.

A. The teaching staff is divided into groups to take various training courses picked by the headteacher. The groups

subsequently meet to exchange the knowledge they have acquired. In this way, the headteachers can encourage the culture of cooperation and exchange between teachers in their schools that is so necessary in this type of centre.

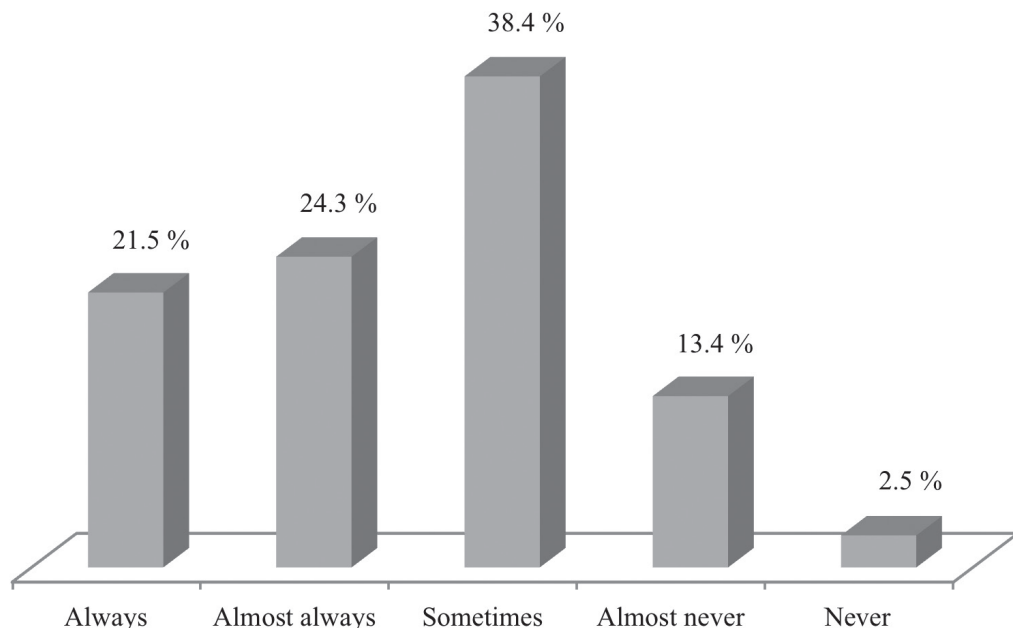
B. The practices of centres with similar characteristics and a good track record or that have a headteacher with considerable experience are studied. In this way, training related to everyday reality and based on experience is acquired, in contrast with an excessively theoretical training that some headteachers associate with the courses on offer, and so inter-

centre training becomes an excellent option.

9. School leadership practices related to cooperation with other schools

To establish the degree of cooperation between schools that work under similar conditions, we asked the teachers whether the headteachers establish cooperative relationships with other schools to exchange training initiatives, knowledge, experience, and educational practices (Figure 7).

FIGURE 7. The headteacher establishes cooperative relationships with other schools to exchange training initiatives, pedagogical knowledge, good practices, etc.



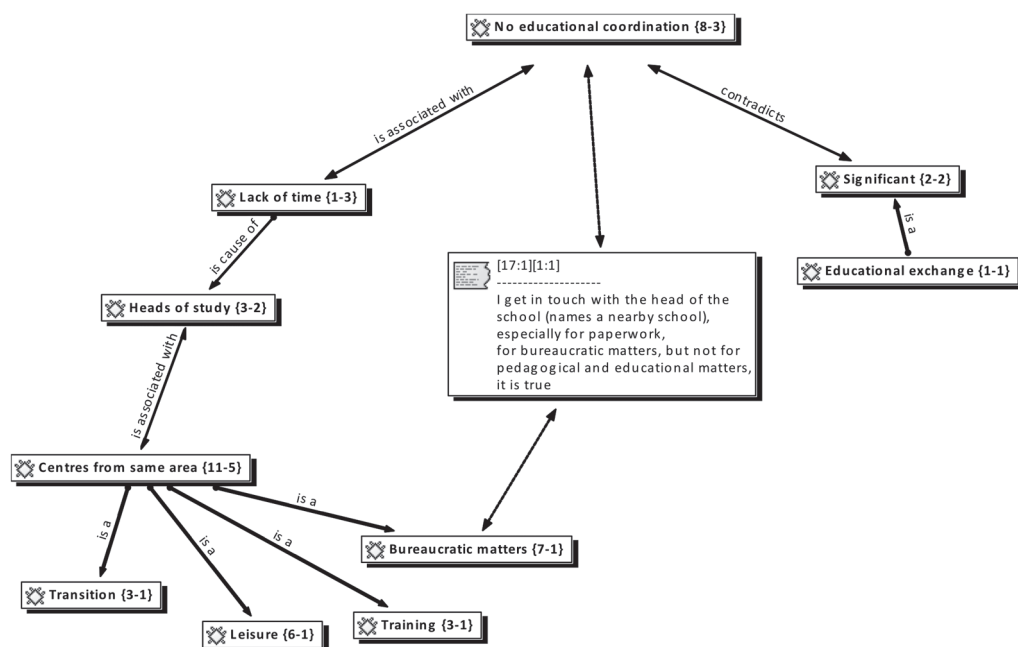
Source: Own elaboration.

Most of the teachers believe that their headteachers only do this «sometimes»,

there being a wide range of attitudes being apparent in turn (s.d. = 1.048).

The concept map prepared from the analysis of the interviews can be seen below (Figure 8).

FIGURE 8. Concept map of cooperation networks with other schools.



Source: Own elaboration.

As a result of the interviews, we were able to ascertain that, while good relationships are maintained between schools that are in the same area and work under compensatory plans, it is usually heads of studies who meet most frequently to organise play and transition activities with the students: «The heads of studies meet once a month and propose shared activities for all of the centres from the area but of the sort where you go to the community centre to do an activity» (I. 9).

As we noted above, there are very few occasions when headteachers use the rela-

tionship with other disadvantaged schools to encourage inter-centre training. They normally maintain contact to cover bureaucratic matters, as shown in the diagram above. As reasons for this, they allude to lack of time for holding periodic meetings where teaching experiences that result in a better performance by the students are discussed. This and other difficulties could be ameliorated with some potential resources that the education administration does not provide them:

We should have this sort of resource in the centres so that you can say: we'll have

an area meeting every Monday. But so you can go from your centre calmly with your classes covered. We would need to meet systematically every two weeks, at least or once a month calmly (I.12).

Despite what is stated above, the headteachers all describe this as a highly beneficial practice that should be encouraged in their schools.

10. Discussion and conclusions

This study has enabled us to establish the opinions of teachers and headteachers from Andalusian schools located in underprivileged areas about the school leadership practices considered effective for contributing to improving the student body's learning.

With regards to teaching supervision in the classroom by headteachers, we agree with previous studies such as that by Gago (2004), where scores in this practice even more modest than those from our research are obtained.

The results we obtained allow us to infer that there are significant differences deriving from the factor of the age of the teaching staff with regards to supervision of their teaching by the headteachers. We found more supervision of new teaching staff in the schools, something closely related to the importance given by these headteachers to guiding and advising teachers who arrive at these centres for the first time, given the difficulties and obstacles they will face.

Headteachers are more reluctant to request information from the teachers in their centre about their lesson plans and

evaluation methods when the teachers have been in post for longer. We established that this is regarded as a rather problematic and uncomfortable practice for the headteachers that is sometimes at odds with trust in the professionalism and experience of the teaching staff. This is especially the case with teachers who have been working at the centre for longer.

The fact that the teaching staff are a key group in selecting the headteacher of their own centre sometimes becomes an obstacle to the headteacher exercising true school leadership. This leadership unavoidably involves supervising teaching and guaranteeing good practices, especially when the students are at risk of social exclusion (Zembylas & Lasonos, 2016).

The results of our study illustrate the headteacher's limited power to enter the classroom and supervise teaching practices. This impedes the desirable feedback with the teaching staff, as a misunderstood academic freedom and deeply-rooted dominant individualism frequently found in teaching practices (Zaitegui, 2011), something we believe to be worrying in schools where there should be a greater culture of cooperation to confront the challenges and difficulties that teaching in these contexts entails.

For this reason, we believe that it is truly urgent that collaborative cultures be established in these schools between all members of the educational community, in particular between the teachers and headteachers and the rest of the staff. Our findings show that headteachers

who have to some extent managed to consolidate a collaborative culture in the centre have also managed to participate in improving teaching practices, thus exercising greater school leadership and minimising individualist traces in teaching practices. In turn, they have also ensured that when teachers from the centres they manage see observation as a guarantee of good teaching-learning practices for students who are at risk of social exclusion, this tends to become a positive practice for all sectors of the centre.

We also established that headteachers are to a significant extent involved in ensuring that teachers do continuous training, something that might be related to the fact that most teachers who work in schools located in underprivileged areas recognise that they have considerable shortcomings in their initial training, mainly with regards to intervention with the families of the students who attend these centres (Amores *et al.*, 2012). We have also detected that the headteachers do this more with teachers who recognise that they have shortcomings in their initial training.

Apart from in the good practices exercised in this area by just two of the headteachers interviewed, we again find the above-mentioned individualism as well as a worrying lack of knowledge of how to encourage continuing training of teaching staff with strategies that go beyond offering them the training courses, which, as we have established, some headteachers believe are not very practical and are disconnected from the reality of these schools.

We suggest cooperation with other schools as a practical and effective means of exchanging training initiatives, knowledge, experience, and educational practices. While most of the teachers believe that the headteachers of their centres sometimes promote this practice, a result that is slightly better than that of García and Caballero (2015), we found that the headteachers on many occasions use these relationships for bureaucratic matters. One matter that is undoubtedly surprising is that it occurs in this type of centre, where cooperation between schools entails innumerable advantages (Scanlan, Kim, Burns, & Vuilleumier, 2016), including encouraging training that is more practical and connected with their situation that would make it possible to ameliorate in some way the training shortcomings that we have shown. In this way, contrary to what we expected to find, an individualism in teaching practices that goes beyond the limits of the school is again apparent.

We believe it is necessary to emphasise the importance of the fact that in Spain managerial tasks are defined considering the actions that lead to achieving better academic results (Egido, 2013), among which stand out those related with school leadership that are decisive for improving the performance of students at risk of exclusion. For this reason, Spanish headteachers must have the skills to allow them to participate in improving the teaching activity.

On the other hand, we believe it is a real priority to provide the headteachers of disadvantaged schools with specific continuing training in school leadership to enable them to implement good practices.

This claim is supported by the headteachers themselves when they state that their priority should be to focus on improving the teaching-learning process, but that they have limited pedagogical knowledge about the other practices. This training must also help with the implementation of collaborative cultures in their schools in contrast with the individualism that we have established is present in most cases, this being incompatible with schools that should feature processes of reflection and joint enquiry into teaching. This assertion was backed-up when we established that those headteachers who implement collaborative cultures exercise greater school leadership even though they have the same skills.

Finally, we believe that the presence of a leadership model focussed on pedagogy in centres should be made visible where it is really needed, since, as González maintains (2014), for there to be leadership for social justice in schools located in underprivileged areas, the headteacher must be able to guarantee that the students will receive optimal teaching-learning processes that help to counteract the inequalities.

Notes

- ¹ Risk of poverty or social exclusion is understood to be when, according to the AROPE indicator (At Risk of Poverty and/or Exclusion) the population is in at least one of these three situations (European Commission, 2010):
At risk of poverty (disposable income below 60% of the median).
Severely materially deprived (with shortcomings in at least four categories from a list of nine, such as going on holiday, eating protein at least every second day, arrears on payments, etc.).

In households without work or with very low work intensity.

- ² Resolution of 27/05/2005, from the Department of Human Resource Management, dictating instructions to govern calls for public competitions on merits to cover, on the occasion of a vacancies, certain specific teaching posts. (Official Gazette of the Regional Government of Andalusia [BOJA] 06/06/2005).
- ³ I = interview, followed by the number of the interview performed.

References

- Albert, M. J. (2007). *La investigación educativa. Claves teóricas*. Madrid: Mc Graw Hill.
- Amores Fernández, F. J., Luengo Navas, J., & Rittacco Real, M. (2012). Educar en contextos de exclusión social: necesidades y cambios desde la perspectiva del profesorado. Un estudio de casos en la provincia de Granada. *Revista Fuentes*, 12, 187-206.
- Anderson, E. (2010). Liderazgo directivo: claves para una mejora. *Psicoperspectivas*, 9 (2), 34-52.
- Aramendi Jáuregui, P., Teixidó Sabals, J., & Berنال Agudo, J. L. (2010). El acceso a la dirección escolar en los centros públicos del País Vasco. *revista española de pedagogía*, 246, 313-332.
- Bolívar, A. (2010). ¿Cómo un liderazgo pedagógico y distribuido mejora los logros académicos? Revisión de la investigación y propuesta. *Magis*, 3 (5), 79-106.
- Bolívar, A., López Yáñez, J., & Murillo Torrecilla, F. J. (2013). Liderazgo en las instituciones educativas. Una revisión de líneas de investigación. *Revista Fuentes*, 14, 15-60.
- Consejería de Educación de la Junta de Andalucía (2016). *Profesorado de los Centros Públicos de Educación Infantil y Primaria de difícil desempeño de los municipios de Cádiz, Córdoba, Huelva y Sevilla*.

- Cubo Delgado, S., Martín Marín, B., & Ramos Sánchez, J. L. (2011). *Métodos de investigación y análisis de datos en ciencias sociales y de la salud*. Madrid: Pirámide.
- Day, C., Gu, Q., & Sammons, P. (2016). The Impact of Leadership on Student Outcomes: How Successful School Leaders Use Transformational and Instructional Strategies to Make a Difference. *Educational Administration Quarterly*, 52, 221-258. doi: 10.1177/0013161X15616863
- Egido Gálvez, I. (2013). Fortalecer la institución escolar. *Participación educativa*, 2 (2), 21-28.
- Eliseo Valle, J. (2013). Profesionalización de la dirección escolar: claves de un debate. *Participación Educativa*, 2 (2), 51-59.
- Elmore, R. F. (2010). *Mejorando la escuela desde la sala de clases*. Santiago de Chile: Fundación Chile.
- Fernández Batanero, J. M., & Hernández Hernández, A. (2013). Liderazgo directivo e inclusión educativa. Estudio de casos. *Perfiles Educativos*, 35 (2), 27-41.
- Gago Rodríguez, F. M. (2004). *La dirección pedagógica en los institutos de educación secundaria. Un estudio sobre el liderazgo educacional*. Doctoral dissertation. Universidad de Oviedo.
- Gairín Sallán, J., & Castro Caecero, D. (2010). La situación de la dirección escolar en España. **revista española de pedagogía**, 68 (247), 401-416.
- García Garnica, M., & Caballero Rodríguez, K. (2015). ¿Qué prácticas eficaces de liderazgo desarrollan los directivos andaluces en sus escuelas? *Revista Iberoamericana de Evaluación Educativa*, 8 (2), 129-147.
- García Garnica, M., & Moral Santaella, C. (2015). El estudio de un liderazgo enfocado a la mejora, el compromiso y la justicia social. La experiencia de un centro de educación secundaria de Granada (España). *Revista Iberoamericana de Evaluación Educativa*, 8 (2), 149-170.
- Gómez-Hurtado, I. (2012). Una dirección escolar para la inclusión escolar. *Perspectiva Educativa*, 51 (2), 18-42.
- González González, M. T. (2014). El liderazgo para la justicia social en organizaciones educativas. *Revista Internacional de Educación para la Justicia Social*, 3 (2), 85-106.
- Heng Wang, L., Gurr, D., & Drysdale, L. (2015). Successful school leadership: case studies of four Singapore primary schools. *Journal of Educational Administration*, 54 (3), 270-287. doi: 10.1108/JEA-03-2015-0022
- Hueso, A., & Cascant, M. J. (2012). *Metodología y Técnicas Cuantitativas de Investigación. Cuadernos docentes en proceso de desarrollo*. Valencia: Universitat Politècnica de Valencia.
- Instituto Nacional de Estadística (2014). *Encuesta condiciones de vida. Resultados definitivos*. Retrieved from <http://www.ine.es/prensa/np908.pdf>
- Instituto Nacional de Evaluación Educativa (2013). La calidad de los directores. *Boletín de Educación*, 7, 1-4. Ministerio de Educación, Cultura y Deporte.
- Intxausti, N., Joaristi, L., & Lizasoain, L. (2016). Educational leadership as best practice in highly effective schools in the Autonomous Region of the Basque County (Spain). *Educational Management Administration y Leadership*, 44 (3), 397-419. doi: 10.1177/1741143214558570
- Jiménez Ramírez, M. M. (2012). Actuaciones socio-comunitarias y educativas inclusivas con alumnado en riesgo de exclusión social. *Revista de Investigación en Educación*, 2 (10), 62-78.
- Leithwood K., & Jantzi, D. (2008). Linking Leadership to Student Learning: The Contributions of Leader Efficacy. *Educational Administration Quarterly*, 44 (4), 496-528.
- Leithwood, K., & Sun, J. (2015). Direction-setting school leadership practices: a meta-analytical review of evidence about their influence. *School Effectiveness and*

- School Improvement*, 26 (4), 499-523. doi: 10.1080/09243453.2015.1005106
- Leithwood, K., Louis, L. K., Anderson, S., & Wahlstrom, K. (2004). *Review of research: how leadership influences student learning*. New York: The Wallace Foundation.
- León Guerrero, M. L. (2002). El liderazgo para y en la escuela inclusiva. *Educatio Siglo XXI*, 30 (1), 133-160.
- Ley Orgánica 2/2006, de 3 de mayo, de Educación. *Boletín Oficial del Estado*, n° 106, de 4 de mayo de 2006.
- Ley Orgánica 8/2013, de 9 de diciembre, para la mejora de la calidad educativa. *Boletín Oficial del Estado*, n° 295, de 10 de diciembre de 2013.
- Llorent Bedmar, V., & Oria Segura, M. R. (1998). *La dirección escolar*. Madrid: Bruño.
- López Yáñez, J. (2010). Confianza. Un patrón emergente de desarrollo y mejora de la escuela. *Revista Iberoamericana de Educación*, 54, 85-106.
- López Yáñez, J., García Jiménez, E., Oliva Rodríguez, N., Moreta Jurado, B., & Bellerín, A. (2014). El liderazgo escolar a través del análisis de la actividad diaria de los directores. *Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación*, 12 (5), 61-78.
- Montero Alcaide, A. (2010). Dirección profesional y selección de directores en el sistema educativo español. *revista española de pedagogía*, 68 (247), 417-435.
- Muijs, D., Harris, A., Chapman, C., Stoll, L., & Russ, J. (2004). Improving Schools in Socioeconomically Disadvantaged Areas - A Review of Research Evidence. *School Effectiveness and School Improvement*, 15 (2), 149-175.
- Mulford, B., Kendall, D., Ewintong, J., Edmunds, B., Kendall, L., & Silins, H. (2007). Successful principalship of high-performance schools in high-poverty communities. *Journal of Educational Administration*, 46 (4), 461-480. doi: 10.1108/09578230810882009
- Mumphord, K. M. (2013). *Elementary teachers' perceptions of instructional leadership and student achievement*. Unpublished doctoral dissertation. University of Texas: Estados Unidos.
- Murillo Torrecilla, F. J. (2006). Una dirección escolar para el cambio: del liderazgo transformacional al liderazgo distribuido. *Revista Electrónica Iberoamericana sobre Calidad, Eficacia y Cambio en Educación*, 4 (4), 11-24.
- Murillo Torrecilla, F. J., Krichesky, G., Castro, A., & Hernández, R. (2010). Liderazgo para la inclusión escolar y la justicia social. Aportaciones de la investigación. *Revista Iberoamericana de Educación Inclusiva*, 4 (1), 169-186.
- Murillo, F. C., & Hernández Castilla, R. (2015). Liderazgo para el aprendizaje: ¿Qué tareas de los directores y directoras son las que más inciden en el aprendizaje de los estudiantes? *Revista Electrónica de Investigación y Evaluación Educativa*, 21 (1), 1-20.
- Ngcobo, T., & Tikly, L. P. (2010). Key Dimensions of Effective Leadership for Change: A Focus on Township and Rural Schools in South Africa. *Educational Management Administration & Leadership*, 38 (2), 202-228. doi: 10.1177/1741143209356359
- Oria Segura, M. R. (2009). ¿Es posible la autonomía escolar? El papel de la dirección y de los proyectos de centro en los sistemas educativos francés, italiano y español. *Educación XXI*, 12, 151-180.
- Pont, B., Nusche, D., & Moorman, H. (2009). *Mejorar el liderazgo escolar. Volumen 1: política y práctica*. París: OCDE.
- Robinson V., Lloyd, C. A., & Rowe, J. K. (2008). The impact of leadership on student outcomes: an analysis of the differential effects of leadership types. *Educational Administration Quarterly*, 44 (5), 635-674.
- Scanlan, M., Kim, M., Burns Bridget, M., & Vuilleumier, C. (2016). Poco a Poco: Leadership Practices Supporting Productive Communities

- of Practice in Schools Serving the New Mainstream. *Educational Administration Quarterly*, 52 (1), 3-44. doi: 10.1177/0013161X15615390
- Seashore, L. K., Dretzke, B., & Wahlstrom, K. (2010). How does leadership affect student achievement? Results from a national US survey. *School Effectiveness and School Improvement*, 21 (3), 315-336. doi: 10.1080/09243453.2010.486586
- Shatzer R. D., Caldarella, P., Hallam P. R., & Brown, B. L. (2014). Comparing the effects of instructional and transformational leadership on student achievement: implications for practice. *Educational Management Administration & Leadership*, 42 (4), 445-459. doi: 10.1177/1741143213502192
- TALIS (2009). *Estudio internacional de la enseñanza y el aprendizaje. Informe Español*. Madrid: Ministerio de Educación, Cultura y Deporte.
- TALIS (2013). *Estudio internacional de la enseñanza y el aprendizaje. Informe Español*. Madrid: Ministerio de Educación, Cultura y Deporte.
- Valles, M. S. (2014). *Entrevistas cualitativas*. Madrid: Centro de Investigaciones Sociológicas.
- Vanblaere, B., & Devos, G. (2016). Exploring the link between experienced teachers' learning outcomes and individual and professional learning community characteristics. *School effectiveness and school improvement*, 27 (2), 205-227.
- Zaitegui, N. (2011). Una buena dirección para la escuela pública: competencias y transformaciones necesarias. *Organización y Gestión Educativa*, 2, 14-19.
- Zembylas, M., & Lasonos, S. (2016). The Entanglement of Leadership Styles and Social Justice Leadership: A Case Study from Cyprus. *Leadership and Policy in Schools*. doi: 10.1080/15700763.2015.1044540
- Zikhali, J., & Perumal, J. (2016). Leading in disadvantaged Zimbabwean school contexts: Female school heads' experiences of emotional labour. *Educational Management Administration & Leadership*, 44 (3), 347-362. doi: 10.1177/1741143214558572

Book reviews

Ibáñez-Martín, J. A. and Fuentes, J. L. (Coords.) (2017).

*Educación y capacidades:
hacia un nuevo enfoque del desarrollo humano*
[Education and capabilities:
Towards a new focus on human-development].
Madrid: Dykinson. 338 pp.

This book, edited by José Antonio Ibáñez-Martín and Juan Luis Fuentes features contributions from twenty-three academics from twelve universities in the United Kingdom, Italy, Mexico, and Spain on the topic of educating human capabilities from the perspective of philosophy of education. The editors specify the perspective from which the topic is examined in the introduction where they state that the search for a dignified society can be based on the theory of capabilities, or human development focus. The contributions by authors of the standing of Martha Nussbaum and Amartya Sen all argue that improving a society cannot be based solely on increasing national income, but that other conditions are need-

ed that allow people to develop their basic capabilities to the highest level. Based on this premise, they raise the need to consider in greater depth the concept of capability, and to determine what basic capabilities are needed and which educational activities should be used to allow for their «cultivation and growth», in the words of the authors.

To achieve this objective, the contributions from the academics named above are incorporated into a well-organised and well-framed structure, with the topics grouped into four major fields: in the first, the study of capabilities is approached from the perspectives of diversity, ethics, universality, and vulnerability; the second comprises theoretical, epistemological, and philosophical analyses of the ethical component and its relationship with capabilities; the third analyses capabilities in relation with the social responsibilities of universities and the contributions from research and experience of learning-service that have been carried out over recent years; and the last area underlines one of the most noticeable

dimensions of the theory of capabilities, namely the one relating to people who are in particularly vulnerable situations.

I will try to draw out below the essence of the contributions by the different authors who have participated in this work, which is united around one of the most important topics: the development of human capabilities, a topic which, as the editors note, has connections with such diverse fields as philosophy, ethics, socio-politics, economics, and education.

In the first part, the two articles by José Antonio Ibáñez Martín and James C. Conroy both consider the theme of the capability to coexist and overcome hatred, albeit from different perspectives. The former analyses the differences between Sen and Nussbaum regarding the list of capabilities and poses a series of questions about Nussbaum's position that, while acknowledging the importance of her contributions, does raise serious doubts about its ability to respond to the most important challenges of our society. Conroy reflects on Brexit, which was backed by large numbers of citizens of the United Kingdom who based their arguments on the idea that *we are not like them*. In both the media and popular beliefs, perceptions of the variety of immigrants who enter the United Kingdom, as well as their range of social, political, economic, etc. motives, are based on a shared identity of *the Others*. The author notes that this populist suspicion of *the Other* has a historical parallel with historical disputes between Great Britain and countries from mainland Europe, with the backdrop of the religious problem that has created so much hatred and discord. To overcome

this situation, he suggests that teaching of religion should not be linked with the beliefs of the *Other*, but it should be an in-depth examination of our own beliefs, systems, cultures, and values.

In the second part, which includes contributions from seven authors, Giuseppe Mari suggests that to promote the growth of capabilities it is necessary to identify the human reference in education, whether with children or adults. In his in-depth analysis of the term «capability», he identifies the need to understand it as something that goes beyond simply transferring knowledge. Antonio Bernal emphasises the central role education has acquired as *fertile capability* for the development of the person. He argues that capabilities are not limited to people's abilities, but that they are linked to their political, social, and economic context in such a way that what we are capable of doing and being shapes our possibilities for being able to choose and act. Emilio López Barajas, an emeritus professor at the UNED (National Distance Learning University), performs an in-depth epistemological analysis of the meaning and sense of human development. This concept requires knowledge of intent, and this relates to will and human liberty. The use of these concepts by politicians and administrators who are unfamiliar with the epistemological assumptions surrounding the meaning of concepts such as information, cognition, or knowledge could have serious consequences in the form of exclusion for many in the race for development. Ana Pagés addresses certain nuances of the concept of *capability as being*, starting from Nussbaum's

focus and the role it gives Aristotle in this concept, identifying and interpreting its implicit connotations. She argues that the concept of *capability* should be expanded using other complementary notions such as *willingness* and *diligence*. María del Rosario González suggests that emotional education must consider the link between ethics, desire, and emotion, and their connection with knowledge of good, moral judgement, and training in virtue. Ethical knowledge must integrate fundamental experiences, those that affect the fullness of life and cannot be ignored in a comprehensive ethical education. Aurora Bernal analyses the relationship between the capability focus and character education, concluding that in both approaches education is seen as an essential element for individual and social human life and, consequently, for human development. Therefore, she postulates an integration of both perspectives to achieve a more complete outlook on reality. Juan Luis Fuentes and Jesús Albertos suggest clarifying the concept of *character education* to differentiate it from related concepts like *moral education*, *values education*, *emotional education*, and *education for citizenship*, with which it overlaps. To do so, they set an objective of establishing the particular limits that are specific to these concepts, especially between *character education* and *education for citizenship*.

In the third part, dedicated to educating capabilities at university, María García Amilburu, Marta Ruiz Corbella, and Juan García Gutiérrez carry out a study of education in capabilities in higher education, emphasising the social re-

sponsibility of universities. They believe that it is necessary to supply knowledge that helps to consider in depth the ethical dimension of our actions and reflect on them, but they also understand that it is important to generate experiences that enable people to experience social responsibility. Concepción Naval and Elena Arbués analyse the implementation of the service-learning method in higher education and its strengths as a host for different basic and specific capabilities, especially emphasising its contribution to the development of professional competences that improve people's chances of finding and keeping a job. Francisco Esteban studies the topic of the development of capabilities that nurture people's character in the context of universities' social responsibility. He believes that universities should educate in three basic capabilities that make it possible to educate a socially responsible student body: the capability to recognise oneself as a learner of a moral question, the capability to embrace the moral merits of university education, and the capability to commit to learn something in particular. Teresa Yurén and José Antonio Arnaz analyse university training in social responsibility in the framework of the UN's Agenda 2030. This project, which aims to create a better future for humankind, requires participation by people and the institutions of which they are part. Higher education has a special responsibility in the achievement of a sustainable human development.

Finally, in the fourth part, which is dedicated to developing capabilities in situations of vulnerability, Fernando Gil

analyses the topic of education and developing capabilities in prison, explaining some of the difficulties this presents. These come from very diverse fields: the penal system itself, the cultural environment that surrounds people, the academic world, and the inmates themselves. Throughout the text, the pedagogical proposals aimed at improving the penal educational practices that affect the development of capabilities are analysed. For his part, Vicent Gozálvarez reflects on disability, education, and the dignified life, analysing the concept of justice as a necessary element for the theoretical framework of inclusive education, performing a detailed critical analysis of the focus on capabilities and its repercussion for people with intellectual disabilities, and concluding with a plea for a revised and enabling theory of justice. J. L. Sánchez, Juan María Díez, and Sergio Pérez set themselves the challenge of thinking about disability, uncovering the possibilities and riches contained in it to undertake the task of providing accompaniment with a new more profound and humane basis. J. Alfredo Pérís considers the topic of the philosophy of maternity in the filmography of Mitchell Leisin, focussing on its role in characterising women and its spiritual dimension. Sara Martínez analyses the philosophical bases for moral education through compassion. To do so, she follows Nussbaum's approach of going to the heart of morality through compassion. Finally, García explains how the focus on capabilities that Nussbaum describes is structured around *creating capabilities* through education.

Kristjánsson, K. (2015).

Aristotelian Character Education.

London: Routledge. 186 pp.

The book reviewed here is important for a number of reasons. Firstly, it is worth noting the impact it has had in the academic field, demonstrated by the different responses to it in the *Journal of Moral Education* by authors such as Curren, Miller, and Lapsley, as well as the publication of a *précis* of the book written by the author himself, along with a response to the authors mentioned above. In addition, the pertinence of a text whose topic has received increasing attention in many countries round the world is clear. Character education has, in recent years, become an object of study as an example of the ethical turn that education is undergoing, in the words of Ibáñez-Martín.

Indeed, while the title might seem to refer to the history of education in Classical Greece, one of the book's main strengths is its close link to the present day. The author, who is a professor at the Jubilee Centre for Character and Virtues at the University of Birmingham, is well aware of the crucial moment in which this text is being published and so has written it taking into account the needs of the moment. Therefore, it has a theoretical character but with clear practical applications as it is a book about the philosophy of education that comes close to psychology. Furthermore, it is accessible to educators as, while it does tackle important issues, it tries to do so using accessible, clear, direct language, with examples from everyday life that ease

understanding, without being a mere academic and intellectual exercise. This philosophical character is also apparent in its highly analytic and well-structured writing style that focusses on refutation as a working method.

It provides a defence of character education with an Aristotelian basis which is updated – or as the author explains, reconstructed – in accordance with contemporary practice and evidence, going beyond mere interpretation of Aristotle's writings. It is based on an examination of the results of empirical studies, arguing that Aristotle would do the same if he lived in our times.

The first chapter comprises a brief overview of the concept of character since the Second World War, where moral pessimism was fertile ground for Kohlberg's model to grow compared with the relativism that appeared to be imposing itself. Nonetheless, after several decades of popularity, this rationalist view lost ground in the face of what the author calls the paradigm of the emotionally vulnerable child, which psychologised character, stripping it of its moral content through concepts such as emotional intelligence. According to Kristjánsson, since then we have been in the era of the flourishing child, which focusses on human development in all its potential, including subjective satisfaction as well as objective external criteria. These initial pages of the book also describe concepts such as character, virtue, and the politically incorrect notion of vice, as well their different variants, emphasising aspects such as their necessary materialisation in every person, the possibility of identifying a

core of virtues that appear in most philosophical and religious systems, as well as the advisability of strengthening them all jointly.

The author gives ten reasons why Aristotle is receiving renewed attention among character educators, reasons that also define this concept: 1) an ontological basis for realism or moral naturalism, 2) a detailed theory of plenitude as the ultimate aim of the human being, 3) recognition of the intrinsic value of human plenitude, 4) a language about virtue that is accessible to teachers and students, 5) establishing a middle point in the virtues that the objective identifies, 6) the prominent place given to emotions, 7) holistic and critical reflection on virtues, 8) attention to the community in character education, 9) identification of different levels of moral development, including behaviour, emotions, and cognition, and 10) moving beyond the dichotomy between direct and indirect moral education.

Turning our attention to chapter 2, we find descriptions of a series of myths about character education along with attempts to refute them through philosophical arguments and data from empirical studies, as well as working from key authors in contemporary moral education, thus illustrating the author's expert knowledge of the field. However, he does not take a dogmatic position, and sometime recognises deficiencies in character education that it is important to overcome, and he consequently presents his neo-Aristotelianism as a necessary reshaping of the philosopher's approaches.

These first two introductory chapters leave open various questions and problems that are covered elsewhere in the book. The first, and for Kristjánsson most important, relates to evaluating character education. It is surprising to find such a clear concern for evaluation in a philosopher, but it is something he sees as necessary for consolidating and continuing this educational concept. After analysing the most common evaluation methods minutely and with a critical eye, he argues for combining strategies that must consider the classic methods of pre-test-posttest with control groups, self-reports, triangulation, moral dilemmas, and ethnographic observation, as well as other more innovative methods such as big data, linguistic analysis, and neuroscience.

Chapter four, which is perhaps the most complex one in the book, focusses on the rarely-studied cultivation of *phronesis*, a process that involves a contradiction as it requires critical thinking that is trained through unthinking habituation in its early stages. Its Aristotelian reconstruction maintains that *phronesis* has a very complex task of organising a good life that cannot be reduced to merely acquiring abilities as it requires a profound theoretical understanding of what the good life means according to empirical knowledge of human nature and its teleological aspiration to happiness or *eudaimonia*. Therefore, it supports the need for both things in education about *phronesis*: abilities that make it possible to confront particular situations, but also a theoretical overview to facilitate access to universals. Consequently, it concludes that character

education must be promoted across all subjects as well as in its own specific one.

The important question about whether character education can undo the effects of a deficient upbringing is the subject of chapter five. Faced with Aristotelian pessimism owing to the absence of habituation, Kristjánsson proposes reconsidering the priority of the contemplative life in an imperfect world, something which can accept other more appropriate ways of living, for example ones that involve helping those who are in a position of need. The author successfully achieves this reconstruction, starting from other Aristotelian ideas that make it possible to admit the moral change in the person while upholding the link to Aristotle's philosophy. He argues that it is possible for those who have had a bad education to achieve a morally good life through contact with virtuous models and reflection on the aims of human life. This process will be hard and complex when the distance to cover becomes apparent, and it will require a healthy dose of intelligence and the ability to think in abstract terms about the aims of human life. In other words, it can be done through philosophical contemplation and not just with prudence, as it is necessary to look beyond the regulation of virtues.

Chapter six considers Socratic dialogue as a method in moral education, responding to the criticisms made about character education owing to its supposed scorn for the dialogical relationship. The privileged place occupied by *phronesis* in Aristotelian thinking and the need to cultivate it through the interaction between teacher and student are two of the fundamental arguments the author raises to

question this idea. Furthermore, the Aristotelian notion of friendship also helps us discuss this apparent dichotomy, as the interaction and dialogue between mature friendly characters is an element that contributes to personal excellence, or, in the author's words: «friendship is therefore an important, perhaps the most important, school of virtue» (p. 125).

The seventh chapter concerns the training of teachers, more specifically, the moral dimension of their profession. It warns us that, while this dimension is recognised by teachers, they call for procedures to be able to give it educational value as they have a feeling of insecurity and a lack of resources that is not addressed in their initial training. Using the provocative example of a Chinese teacher who fled from his school to save his life during an earthquake, leaving his students alone to face the danger, it suggests the risks of what the author calls the «constructivist-cognitive paradigm» in the conception of the identity of teachers and of their affective dimension. Consequently, he proposes a measure which is not free from controversy and involves considering character when accepting candidates for teacher training, something that is divisive owing to the challenges with evaluation set out by the author himself in the third chapter of the book. Alongside this, he recommends that character should be a central topic in teacher training, entailing a more reflexive task of self-knowing and a more critical evaluation from a moral perspective, thus making it possible to discover the values that lie within one's character before venturing into the task of transmitting values to others.

The concluding chapter bemoans the scarce consideration of character in educational policies, dominated by questions such as classroom management and getting results. It argues that to change this situation, it is necessary to influence the public, as once politicians discover that the public really supports concepts such as character education, they will change their policies. Another of the biggest obstacles Kristjánsson encounters is the lack of a satisfactory model of moral education, one that can be applied and accepted by the large majority of teachers. He is perhaps too optimistic when he formulates four conditions that would allow this to become reality: it should meet the needs of the current moment, it should be established with a political consensus between left and right, and it should be supported by a philosophical and psychological theory. According to him, character education meets all of these conditions except the last one, as psychology is still not a firm support for the ethics of virtue or for moral education, for various reasons, responsibility for which is shared between teachers and psychologists.

From this book's many valuable contributions which are barely covered here, I will conclude by emphasising its optimistic and hopeful vision of education. An education that, fortunately, has regained its interest in moral questions, to which the author makes a broad contribution by establishing some vital foundations for this interest to last in time. Shall we join him in this task?

Juan Luis Fuentes ■

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revista española de pedagogía



Barraca Mairal, J. (2017).*Originalidad e Identidad Personal. Claves antropológicas frente a la masificación**[Originality and personal identity:**Anthropological keys in the face of overcrowding].*

Madrid: Editorial San Pablo. 149 pp.

In this profound and insightful essay, the author tries to find an answer to one of the questions that humankind has, in all likelihood, asked most often: who am I? A question that inevitably addresses the very questioner.

Barraca's enquiries into this question comprise four major blocks. In the first, he tackles the complexity of identity in the human condition, placing special emphasis on identifying some of the factors that in contemporary society seem most relevant. These are factors that can contribute to masking and obscuring personal identity, thus confusing people who, with the deepest sincerity, have chosen to venture to discover who they are.

From the deep and critical perspective of realist anthropology, the author reviews some of the damaging factors that might impede or disfigure the encounter with one's self. In light of this, perhaps with the aim of encouraging potential readers of this work, I have tried to express some of the questions reading it has inspired in me.

Can one guide one's own life in ignorance of who one is or wants to become? What does one's own experience contribute to knowledge of personal identity? Is it necessary to reflect on what constitutes

the fabric of everyday existence? Can the overcrowding of a globalised society dissolve personal uniqueness, making it just another number that is only useful for statistical calculation? How can one distinguish the true identity of the protagonist of the I, the search for social approval, or narcissism? Are we sensitive to attempts at personal and collective manipulation? Do we know how to identify them? Do we have sufficient resources to confront them?

In the second block, the author studies the relationship and dialogue between the I and the you. From the beginning, the encounter with the Other contributes to knowledge of one's own identity. The social dimension of the identity of the individual is an ingredient that is inalienable in this pursuit of personal knowledge.

In reality, there can be no I without you. How often is the encounter with the you what really makes it possible to deepen knowledge of the I! Are interpersonal relationships auto-constitutive with personal identity? What can be inferred from the fact that the person is a relational and essentially dialogic being? Can one's own I shape the relationship with the Other? Can there be personal identity without the experience of loving and being loved?

In the third block, Barraca confronts the problem of the originality of the human being. This personal originality leads us to the question of personal origin, which is based on the unique oneness of each human being. The author's reference to parenthood clearly shows this originality: «A child», he writes, «is always unique, even if it is not an only child. ... No parent

loves or can love all her children with an identical love, ... she loves each one with a different, incomparable, unrepeatable, and intensely personal love» (p. 71). The path in life that each person chooses depends on this originality and its development. The resulting personal biography will be the result of this choice. This radical originality is primordial and it is not a centripetal reality nor a closed off one, and it does not revolve around one's own I, even though the I is partly an outcome of it.

This originality is creative and opens itself up to however many people need it at the same time as seeking to be welcomed, recognised, and valued by others. The way in which it projects itself to and communicates with others does not fit into any category, scheme, cliché, generalisation, model, etc., simply because of the powerful (anthropological and ontological) link between the personal being and biographical originality.

Consequently, no institution (family, school, business, etc.) can sacrifice, crush, or annihilate this personal originality in the interest of the supposed common good. In so doing, it would commit the contradiction of stealing the most valuable thing the person has, the very thing he gives to others and to the common good. This is especially true in the field of education as «the task of education fundamentally involves correctly helping life to develop organically and profoundly, in consonance with the individual's own personal originality» (p. 101).

Sadly, mass society does not seem to be particularly sensitive to the duty to

respect originality and the biographic and creative itineraries that people freely choose. The anonymous and undifferentiated mass, instead, reduces subjects to numbers, crushing and dissolving the most radically human thing there is in them.

Forgetting the mystery of the person – something that is usually interpreted as not being subject to reason and, therefore, irrational – strips him of his unrepeatable value: putting his gifts at the mercy of his vocation in the service of others: a heinous act through which all people and the common good lose out without anyone gaining anything.

In this block, the reader can find the necessary help to answer some of the questions I formulate here and which might affect him in person: is originality something that gets confused with what is outlandish and strange? Can some of the behavioural patterns of users on social networks be classified as original? Is originality at the exclusive service of the protagonism of the I? Does originality serve any purpose if the person does not know himself? Is it possible for the person to «reinvent» himself? Fully? Are there personal «invariant» elements that can never be modified? Is originality just a fantasy image for escaping from oneself or catching the attention of spectators whom the person imitates and to which he adapts himself? Is it not the case that originality is instead at the service of personal identity, of continuity and faithfulness to one's own vocation, to the freely chosen life project? Can one delegate one's own liberty? Is it possible to make one's own life while being a slave to changing

fashions, habits, and customs? Is each person the progenitor of his actions and the author of his personal life?

Finally, in the fourth block, Barraça brings together identity and personal originality in dialogue with justice. «All values matter when developing one's own identity, all of them feed our originality», he writes. Of all of them, he places special emphasis on justice, «the key to any educational effort. This is the case, insofar as justice governs the underlying order in the mutual encounter of different originalities and identities combined in diverse human and educational relationships, those directed towards the holistic development of subjects» (p. 109).

Can any relationship be established between justice and personal development? In my opinion, some people have a very constrained concept of justice which is restricted solely the material. They regard it as something like a giant cake that must be shared out between everyone in exact identical slices. However, personal development, for example, is a spiritual good that is more valuable than material goods and also has a relationship with justice. Its development depends to a large extent on how each person uses his liberty.

People come into this world with a range of different positive traits that have been given to them (gifts), all of them valuable and many still in a potential state. They must be developed, so that they are updated and are as active and effective as they can come to be.

It could be argued that these gifts are personal and fundamentally belong to

their respective owners. Therefore, it is not uncommon to hear people say things like «these values are mine and I can do whatever I want with them». Few objections could be raised about the previous statement. In effect, the values with which the subject has been endowed are his and belong solely to him. And as the owner of them, he may do whatever he pleases with them.

However, if we consider this from the social side of his person, then it is indeed worth making an objection, an important and serious one. If this subject develops those values, he will be more competent, will easily resolve serious problems, and will better serve others. Let us suppose that this subject is especially gifted as a teacher. Insofar as he develops those values (knowledge, empathy, capability to seek the truth, verbal fluency, communication, motivation, etc.), his effectiveness as a teacher will increase and with it the possibility of making his future students happier.

His values certainly do belong to him. The consequences of whether or not he develops them are partly his but partly not. If he does not develop his capability to seek the truth, it is likely that he will encounter serious difficulties in transmitting it to his students; if he does not expand his knowledge, it is possible that he will transfer his own ignorance to them, and so on.

The values that the aforementioned teacher has continue to be his, but not all of the consequences of what he has done or ceased to do with them. Many of these consequences seriously affect his stu-

dents: idleness in seeking the truth, demoralisation for knowledge, etc.

In essence, the teacher in the previous example has taken some initial goods (the bounty of the gifts he received, certain perfectible perfections) that he has not known how to, wanted to, or been able to develop and so they have become neglected perfections, in other words, imperfections (anti-values) he will transmit to his students (people who do not belong to him and were entitled to a better education).

In this sense, his behaviour could be classified as unjust, because he has undervalued or ruined his initial values; because as a person, he has not developed to his full status; because as a teacher, he has transmitted to the next generation the deficiency he finds in the values received that he has not cultivated. This way of behaving impedes the act of «giving each person his due», which is the nature of justice.

All things considered, the undeveloped values have prevented him from growing as a person. He has turned the initial «perfectible perfection» which the values comprised into a relative deterioration or absence of the final values available (personal imperfection).

In contrast, if he had made his initial values grow, he would now be a valuable person (he would embody a certain plenitude of values that, with effort, he has earned starting from what he was given); he would make it easier for his students to learn what he teaches them («it is easy to learn with him», they would say); he would help make them feel more secure and confident in their own capa-

bilities (something that would improve their self-esteem and self-concept), and it is even possible that some of them would try to imitate him or would be inspired by his example when discovering their own vocation.

Evidently, spreading a passion for truth and justice among students is a good principle on which to base the art of educating. But an erudite exposition of these values will be of very little use if the teacher does not embody them. Embodying those values means incorporating them into everyday life as behavioural habits. Behaviour is more important than theoretical exposition, however brilliant this exposition might be.

When a value is embodied in the person, it becomes a virtue. An embodied value is none other than what we call a virtue. Growing in virtues is one of the most original forms of developing and projecting one's initial originality. The greater the growth in the field of virtues, the more deep and coherent the personal identity will be.

In this short publication, Javier has presented us with a brief and clear synthesis of one of the questions that most affects the contemporary individual. Really, this question is as old as humankind itself. What is perhaps new is the way in which the contemporary person refuses to face these questions, despite feeling interpellated by them. In these pages, the author opens new horizons to the person, something that is very welcome. On top of this, it has two other important good features: the clarity of his exposition, without excessively complicating these questions,

and – even more significantly – the effort to try to provide us with some solutions. I am very grateful for everything Barraca has taught me in this text.

I recommend a close reading of this essay to teachers and students, psychologists and pedagogues, psychiatrists and psychotherapists, indeed all professionals who in one way or another have to deal with the most valuable thing in the world: care and service for people.

I would particularly like to note the care, accuracy, and good taste shown by the San Pablo publishing house in the printing and publishing of this work.

Aquilino Polaino-Lorente ■

Renzulli, J. S. and Reis, S. M. (2016).

Enriqueciendo el currículo para todo el alumnado [Enriching the curriculum for all students].

Madrid: Ápeiron Ediciones. 260 pp.

What importance does the development of talent have? Can it, in fact, be handled? What is the biggest challenge for a teacher? Can the current teaching model be improved? These questions and many others will occur to anyone interested in the educational world or immersed in it. *Enriching the curriculum for all students*, by Joseph S. Renzulli and Sally M. Reis, allows the reader not only to answer each of these questions in depth, but also to discover a whole model for enriching students that opens up horizons for a world of educational possibilities that make it possible to achieve the aim of ed-

ucation and of educational activity: giving each student what he or she needs for optimal learning. Through in-depth knowledge of the strengths of the students, the SEM model (Schoolwide Enrichment Model) offers them the chance to acquire new knowledge and abilities that complete their education and enable them to rediscover the excitement of learning.

Joseph S. Renzulli, a professor at the University of Connecticut and the director of the National Research Center on the Gifted and Talented, has spent several decades working on studying and developing talent. His numerous publications include books such as *Light up your child's mind: Finding a unique pathway to happiness and success* and articles like «What makes giftedness?», published in 1978. His most noteworthy honours include being named Board of Trustees Distinguished Professor at the University of Connecticut and being awarded an honorary doctorate in Law by McGill University, Montreal. One of his major achievements is the creation of the Confratute programme for teaching development and talent, of which Sally M. Reis is the co-director. Sally M. Reis, who is Vice Provost for Academic Affairs and a professor at the University of Connecticut also works as a researcher at the National Research Center on the Gifted and Talented. She has written over 140 articles, 11 books, and 50 book chapters. Her research focusses on special groups of gifted and talented students. She is also on the editorial board of *Gifted child quarterly*, and has been the president of the National Association for Gifted Children (NAGC). She has also been awarded the title Distinguished Scholar of the

National Association for Gifted Children, and, like Renzulli, she has been named a Board of Trustees Distinguished Professor by the University of Connecticut.

This book is a work that is highly recommended for any educator. In its eight chapters, the theoretical character of the work can be appreciated as it examines the SEM model in depth with order, clarity, and simplicity, providing a solid theoretical base. In addition, and making it even more valuable, it has an obvious practical purpose, so that reading it gives clear ideas that can be applied in the classroom or the school, recommendations, and real experiences that mean that reading it will have an immediate impact on educators and their ways of carrying out their educational practice.

The first chapter briefly sets out the reasons behind talent development and enrichment and explains what they are. The authors also establish from the start a series of key concepts and ideas such as working with problems from real life, the change of role of the teaching staff or the importance of learning that goes beyond the merely deductive (didactic), providing a well-defined idea of enriched learning and teaching. With this type of learning «the role of the student changes from being someone who learns a lesson to being a first-person investigator, and the role of the teacher changes from being an instructor and disseminator of knowledge to being a combination of advisor, provider of resources, mentor, and personal guide» (p. 31). Furthermore, the presentation of the objectives pursued through implementation of the SEM model is established as the horizon and basis of all of the actions carried out in the implemen-

tation of the model. «Schools should be enriching places where the mind, spirit, and values of each student are expanded and developed in a pleasant and interesting atmosphere that presents challenges» (p. 33).

With this we come to the second part of the book, which provides an overview of the model. The introduction to the three-ring conception, which defines gifted behaviour as «an interaction of three basic clusters of human traits – above average ability, high levels of task commitment, and high levels of creativity» (p. 45), and under the main objective of the model, «to promote both challenging and enjoyable high-end learning across a wide range of school types, levels, and demographic differences» (p. 39) it presents the school-wide enrichment model. In this model, talented students are identified through «test scores, nominations by teachers, parents, and peers, and examples of creative potential or productivity» (p. 49) under the Revolving Door Identification Model (RDIM), currently known as the Renzulli Identification System (or RIS model). In this, the selected students become part of a talent pool through which they access a variety of services adapted to their interests and learning styles. In this chapter, the three components of the SEM model on the basis of which students with talent are offered enriched forms of learning are briefly covered. These include modifications to the ordinary curriculum, enrichment clusters, and the continuum of special services. Through these, various services are offered that make up the portfolio of services: evaluation of individual strengths, techniques for modifying the curriculum, and enriched teaching

and learning. This process «provides a detailed plan to develop talents and gifts and encourage creative productivity in students» (p. 66).

Following the overview offered in the first two sections of the book, chapter three focusses the reader's attention on the continuum of special services and tries to show how these educational options should be implemented depending on each student and their needs. This is why the authors underline the importance of being clear about the students' *continuum of potentials* (input) through which their aptitudes, interests, and learning styles are grouped. Next, a series of organisational methods are introduced that allow the development of these potentials (process). Finally, a *continuum of performances* (output) is provided, showing the learning achieved by the students. In this setting, it is useful to group students and this is frequently used in the SEM model owing to its flexibility and to the cooperative practice established among the students who form part of a single group. Throughout this chapter, elements are established that are as important as the criteria when forming the groups and their handling and the essential role of the teacher for adequate performance by the students.

«Equity is not the product of identical learning experiences for all students; rather, it is the product of a broad range of differentiated experiences that take into account each student's unique strengths» (p. 69). This statement defines the purpose of the portfolio of talent, which is the subject of chapter four of this book and the first component of the

portfolio of services. The SEM model is based, among other things, on the conviction that it is necessary to know students' strengths to be able to build the most appropriate learning for the student based on them. This is why, using this portfolio, it is a matter of knowing their strong points in three areas: aptitudes, interests and learning styles. Information about these is collected through different methods such as SRBCSS scales or the *interest-al-yzer*.

Continuing with the presentation of the services offered through the SEM model, we come to chapter 5, «Curriculum compacting and differentiation», where the authors try to offer the reader a detailed view of curriculum compacting and differentiation, explaining how to modify the curriculum step by step; «curriculum compacting is a differentiation strategy that includes content, processes, products, classroom management, and a personal commitment by the teachers to recognize the differences both of individuals and of small groups» (p. 126). Among other reasons, this chapter is interesting for the guidelines it provides about how to carry out a process of curriculum compacting, including examples, frequently asked questions and various recommendations.

In chapter six we come to the third component of the portfolio of services offered by the SEM model, enriched learning and teaching. «The ultimate goal of learning that is guided by these principles is to replace dependent and passive learning with independence and engaged learning» (p. 165). This objective is met by using the triad enrichment model, «designed to encourage creative productivity

on the part of young people by exposing them to various topics, areas of interest, and fields of study, and to further train them to apply advanced content, processing abilities and methodology» (p. 166) that are typical of the area of interest they have chosen. The triad enrichment model comprises three types of activity: Type I (general exploratory activities), Type II (group skills and abilities development training activities), and Type III (individual or small-group research into real problems), which are explained in detail in this chapter. The triad enrichment model can be implemented using enrichment clusters, «nongraded groups of students who share common interests and who come together during specially designated time blocks to pursue these interests» (pp. 189-190).

Of course, the triad enrichment model has many more forms of use and can act as a foundation for developing different content areas. One example of this is chapter 7, which explains the Schoolwide Enrichment Model in Reading (SEM-R). «The SEM-R focuses on enrichment for all students through engagement in challenging, self-selected reading, accompanied by instruction in higher-order thinking and strategy skills» (p. 205). It is worth taking some time to read this chapter and the model proposed since, as research shows, it has very positive effects on students.

Finally, we come to the last chapter of the book, «Implementing SEM by Using a New On-Line Resource for Enrichment and Differentiation». In this chapter, the authors refer to Renzulli Learning, which is the electronic version of the SEM mod-

el. In line with the steady growth in the use of the internet and online courses, Renzulli Learning is presented as an opportunity to encourage enriched teaching and learning in a closer way and adapted to the latest advances, «combining computer based strength assessment with search engine technology» (p. 214).

This work is an interesting read, and it introduces the reader to a new vision of the educational possibilities that can be provided in the classroom, and the importance of talent development in schools. It is not a case of serving the average student; nor of only meeting the needs of students of the highest or lowest levels. Talent development involves finding and squeezing out the potential of each student. This is the true aim of education, the true role of education, and the clearest definition of talent development.

Patricia Olmedo Ariza ■

Prats, E. (2015).

Teorizando en Educación: entre erudición, poesía y opinionitis [Theorising in education: Between erudition, poetry, and opinionitis]. Barcelona: UOC. 173 pp.

When reading a book, we usually start from the first page and patiently continue along the path the author has marked out for us without any problems. There are cases, like when the text is a collection of independent chapters, where it does not matter where one starts, but there are other cases where the author plays with the reader and suggests an order that almost obscures, or at least hides, the ulti-

mate meaning of the text. This might be one of these cases, as this text by Prats seems to make sense thanks to its third chapter, with the whole text being a dialogue and response to what is raised in this third chapter of the four that make up this work. I will not follow the order of the book. Instead I will start with chapter three, then move on to chapter one and finish with the one I believe is the best of all of the chapters, number two.

We live in times when pedagogical thinking is out of fashion, indeed it even seems that it is a target to attack in any gathering or opinion article. Of course, many people do not regard it as an area of knowledge that has attained the status of science, and it is a realm where opinions can exist in comfort as they do not have to confront a scientific body of knowledge. There are numerous texts that set out to attack the work of pedagogy as though it was pure ideology, unable to produce science with all knowledge at the same level, thus making it impossible to establish an objective hierarchy of value. This is the core problem that the author tries to analyse in chapter three of this book.

With practical activities, and education is one of them, there are always problems when combining theory and practice. Many students, for example, claim that universities fail to provide practical training while providing excessive theory, forgetting that all practice contains theory and that there are two types of person regarding this matter: those who know that theory guides their practice and those who do not realise that it guides their practice. This book sets out the idea that theories can be explicit or implicit and that anyone

who teaches, at any of the levels at which we work, must survive using a mix of the two. As the author acknowledges, everyone who is now a teacher has been a student, and we have unconsciously acquired pedagogical beliefs that are obscured even to ourselves.

The belief that we can teach without an educational theory provokes a certain disdain for this world that does not explain what we should do and can even confuse us. According to the people who believe this, it is possible to teach without pedagogical theory as teaching practice and knowledge of the subject would on their own suffice.

But this is not true; as is stated above, theories always exist, it is just that they are not always made explicit. It is precisely this character as a source of implicit ideas about education that Enric recognises in current antipedagogical literature: «it is not a matter of making these books anathema, but of knowing how to extract some of their main arguments and observe how in Pedagogy, in upper case here, for several decades now, we have been trying to break away from simple discourses that reduce reality to hard to digest categories» (p. 147). Indeed, reading these texts can allow us to rediscover or confront the practical problems with which the teaching profession grapples, now based on a systematic theory rather than *opinionitis*. However, these *antipedagogy* books also inadvertently show the reality of a knowledge which is not that of disciplines but that of their teaching, concepts that, as we have always known in pedagogy, are different. Nonetheless, this is not their only value.

However, to uncover this extra value, a more precise and rigorous dissection of the entrails of these *antipedagogy* handbooks would have been desirable, thus showing that they are not just of value because they make explicit what is implicit, but also because there are ones of different levels and because some of them can be right in some diagnoses. The general treatment of them in the text prevents us from sorting the wheat – and wheat there is – from the chaff, which is also abundant. To use philosophical terminology, current antipedagogical literature contains not just *doxa* but also *endoxa*. It is true that many of these books are reactive, they have an air of trench warfare and are written «from the trenches», and this origin greatly limits their possibilities and their value, but we should not be unwilling to recognise the valuable, and in some cases even brilliant, reflections contained in them.

Prats places two chapters ahead of chapter three. The first reviews the traditional paradigms used as the basis for theorising about education. This is an interesting chapter for anyone who wants to find out about the principal schools of educational theory, seen, above all, through the eyes of Catalan theorists, but it is of less interest for experts in the field. This chapter would have benefited from coming after chapter three, which is dedicated to sensationalist pedagogies, implicit pedagogical ideas and *opinionitis*, as it would have obliged the author to write it differently, making him update the interesting aspects of the theory of education.

The last chapter we will discuss is chapter two, called «The poetic view:

When fiction theorises on education». This is, in our opinion, the most interesting part of the book, for several reasons. First because it establishes a relationship between fiction and theory that, while not being new, is still fruitful. Fiction, when it is good, allows us to draw attention to the complexity of educational phenomena and has great possibilities for theoretical analysis. Prats analyses three works in this chapter and does so armed with a fourth one that acts as an interpretative key that makes it possible to extract pedagogical knowledge from works that are not strictly about pedagogy. The three works he uses are: *The professor* by Charlotte Brontë (1857), *I married a communist* by Philip Roth (1998), and *Wilt* by Tom Sharpe (1976), and the interpretative key is the autobiographic work *Chagrin d'école* (2007) by Daniel Pennac.

On the author's journey through the pages of the fine selection of books used in this chapter, we form our view of the classical problems of the educational relationship, school bureaucracy, the role of academic disciplines, the idealism of the teacher, the hypercomplex reality of classrooms, pupils and students, adolescence, authority, and many other classic themes from theoretical reflection on education.

This book concludes with a fourth chapter that is more of an epilogue that argues for the need for educational theory, as «without education there is no humanisation» (p. 168).

David Reyero ■

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C. Segura Peraita (Ed.) (2017).

El método socrático hoy. Para una enseñanza y práctica dialógica de la filosofía

[*The Socratic method today: For dialogical teaching and practice of philosophy*].

Madrid: Escolar y Mayo. 180 pp.

The interest in the figure of Socrates as a model of an attitude to life and an intellectual attitude and analysis of the so-called «Socratic method» have been ever-present throughout the history of Western thought. The recent Spanish translation of *La muerte de Sócrates* [The death of Socrates] by Romano Guardini (Ediciones Palabra, 2016), as well as the publication of *Sócrates, hoplita de la polis* [Socrates: Hoplite of the polis] by Eduardo Esteban, *Eloge de Socrate* [In praise of Socrates] by Pierre Hadot, *¿Matar a Sócrates?* [Killing Socrates?] by Gregorio Luri, and *Sócrates. La muerte del hombre más justo* [Socrates: The death of the most just man], are proof of this renewed interest. The publication of this multi-author work, edited by Carmen Segura Peraita who is a professor of philosophy at Madrid Complutense University, is now part of this permanent commemoration of Socrates.

The nine contributions in this book coalesce around a common objective: studying the options for applying the Socratic method in the present day, in secondary-school and baccalaureate classrooms and at the level of university teaching, as well as in other areas of society (businesses, organisations, public bodies, etc.). It is, therefore, a matter of reconstructing and bringing up to date the practice of the Socratic method in a setting that,

in principle, appears to be openly hostile to it, given the utilitarian and pragmatic obsession that presides over the contemporary world.

When talking about the «Socratic method», we are not referring to specific techniques and procedures shaped by an agreed and exacting idea (indeed, there is no unanimous agreement about what it means and what it comprises), but rather an attitude, a way of seeing the world and understanding reality. Irony – the recognition of one's own ignorance – and *maieutics* – the art of drawing out an argument – would be the two fundamental moments in this existential inclination that leads teachers to commit themselves to the moral education of their students, fostering their intellectual maturity through dialogue, self-analysis and reflection.

In «Reclaiming the Socratic method in contemporary education», Astrid Acha describes her personal experience in a primary school when trying to implement the Socratic method as a teacher of the philosophy and citizenship subject. She starts by briefly explaining the two phases of the method in the context of the classroom: *irony* is a deconstructive, negative, or preparatory phase that involves asking students questions of the «what is X?» type, with the teacher refuting the answers (the objections are not based on saying the opposite of what the student states, but on saying it in a different way) with the objective being that the students become able to recognise that they are ignorant of something they thought they knew (the first true wisdom, similar to the *docta ignorantia* of the ancients,

would reside in this recognition of our ignorance or of the limits of our knowledge); maieutics, in contrast, is a constructive and positive phase of enquiry that «involves guiding the students' responses towards the universal definition through inductive reasoning» (p. 13), so that the teacher acts as a guide who teaches students to advance by themselves. If the first phase corresponds to the metaphor of the ray, the second is represented by the image of the midwife who helps the children to give birth.

The primary difficulties in implementing the Socratic method in the classroom are the large number of students, the limited closeness, and trust that exists between the teacher and the students, the supposed status of the teacher as an authority figure in full possession of knowledge, curricular requirements, and the need for evaluation of content and of a specific subject matter. Nonetheless, teachers must make an effort to take this desire for self-examination and examination of others, the search for the universal definition and the pedagogical aim of creating good people to the classrooms. Their ultimate goal must be to encourage independent and critical thought among their students, as well as fostering their intellectual and moral maturity.

From an eminently practical perspective, and in the context of philosophical consultancy or guidance, Dries Boele explains in «The benefits of Socratic dialogue» the success that Socratic dialogue has achieved in the Netherlands as a way for groups to consider topics such as responsibility, mutual trust, and ethical values, whether with individuals, in busi-

nesses or in the training of professionals. Boele starts by explaining what this practice entails and what its results are, then analyses the concept of philosophy on which it is based, and finally lists its principal benefits. The final conclusion he reaches is that Socratic dialogue, whose basic slogans are «know yourself» and «dare to use your intelligence», might be regarded as an exercise in personal ethics and an effective tool for developing the art of living.

In «The secret of the Socratic method: Successes and failures», Beatriz Bossi reflects on the maieutic abilities (and weaknesses) displayed by Socrates in some Platonic dialogues such as *Gorgias*, *The Symposium*, and *Phaedrus* to establish how they can act as inspiration in the task of teaching. She concludes that there is a need to consider not just the students' intellectual side but also their emotional side, so that teacher shows that they dominate their art of birthing a discourse but a new way of living.

Beyond its destructive character, already extensively studied by Martha Nussbaum, in «Old and new shame: The powerful recognition of powerlessness through Socratic dialogue» Laura Candi-otto analyses how Socrates uses the sense of shame to achieve the purification of his interlocutors, and questions whether we should reject the figure of the teacher inspired by Socrates, seeing it as a «bad teacher» who humiliates students. To do this, she focusses on analysis of feelings and the role that «emotional intelligence» plays in any shared knowledge-construction process. From the perspective of Socratic dialogue, compassion could even be

reinterpreted in light of the need to turn shame into a sort of love for one's neighbour.

In «The use of the Socratic method in the analysis of texts» Juan José García Norro suggests «developing a procedure that facilitates active learning and discovery by the students of some of the content that comprises a subject area» (p. 93). As a result of the large number of students usually found in classrooms, oral work must be complemented by work on written texts, which are often used as preparatory work for reflection and subsequent group discussion during the learning-teaching process.

Understanding the text is just the start of this task; students must link what the text discusses with phenomena and circumstances from their everyday lives, understanding that it is about something that affects them (despite the age of the author or the apparent distance of the content of the text); finally, the student has to adopt a stance towards the topic covered, that «argues for or against the proposals in the text, that finds new illustrations of what is said in it, that applies what it recommends to other similar situations, etc» (p. 99). The practical example developed step by step by García Norro concerning «The concept of democracy of Classical Athens» is very illustrative.

In «Question, purification, and state of mind», Carmen Segura tries to define the difference between training and education, sets out a reflection about the nature of dialogue, and ends with a proposal for practice based around commentary

on philosophical texts. For his part, José Sánchez Tortosa explains the launch of the «Telemachus Project», an attempt to apply new technologies to the development of the dialectic method among students. And in «How to direct a Socratic dialogue» Kristof Van Rossem sets out the specific case of his experience in managing and guiding Socratic dialogue with university students, defining it as «a conversation in which one or more participants investigate a) the truth of affirmations from one's own experience or from the experience of another person, and b) the value of the arguments that given in these propositions» (p. 140).

Finally, in «Asking about things you already know: Socratic process and teaching philosophy», Guillermo Villaverde López questions the viability of putting into practice the Socratic method in the classroom, while reappraising the figure of Socrates as a support for introducing important topics to students, such as «a) what is philosophy in general; b) what the theoretic/scientific attitude comprises, and what is the relationship between philosophy and science; c) what is the moral attitude, and d) in what way is rational dialogue (the «linguistic play of validity») related to b) and c)» (p. 173).

In conclusion, the Socratic method is shown in this joint publication as a powerful antidote to narrow visions that reduce education to mere technical instruction, as it aims to awaken in the students a true and permanent desire to know, in such a way that they themselves are the active protagonists in their own learning. So, following the classic image of the mid-

wife, the teacher becomes a mentor who accompanies and guides the students and is existentially involved in their all-round education and in their moral develop-

ment, personifying the ethical dimension of true education, since educating is ultimately teaching how to live.

Ernesto Baltar ■



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