

**Title:** Musical skills in the Spanish Grado university degree in Early Childhood Education. How do Spanish university students view their preparation?

**Authors:** Desirée García<sup>a</sup>, Oscar Casanova<sup>b</sup>, and Francisco Javier Zarza<sup>b\*</sup>

<sup>a</sup>*Department of Language Didactics, Arts and Physical Education, Complutense University of Madrid, Madrid, Spain;*

<sup>b</sup>*Department of Musical, Plastic and Corporal Expression, University of Zaragoza, Zaragoza, Spain*

\*Corresponding autor: Francisco Javier Zarza. Facultad de Educación, Pedro Cerbuna, 12, 50009 Zaragoza, Spain [fjarza@unizar.es](mailto:fjarza@unizar.es)

### **Desirée García Gil**

Doctor of Music Education. Associate Lecturer of Music Education at the Faculty of Education at the University Complutense of Madrid (Spain). Editor of the Revista Electrónica Complutense de Investigación en Educación Musical – RECIEM indexed in Scopus. Among his research include those related with the promotion of the music education in early childhood.

### **Óscar Casanova-López**

Doctor of Science Education and Specific Didactic. Graduated in Percussion. He is Professor of Teaching Musical Expression at the Faculty of Education at the University of Zaragoza (Spain). Coordinator of the specialty of Music and Dance in the Master of Teaching Skills. His priority research topics are: music performance anxiety; ICT and active methodologies in the music room; curriculum design and music.

### **Francisco Javier Zarza-Alzugaray**

Doctor of Education. Graduate and post-graduate degrees in Piano. He is Lecturer of Teaching Musical Expression in the Faculty of Human Sciences and Education at the University of Zaragoza (Spain). His research interests include the music performance anxiety and personal and professional development of them. Member of Research Group related to Entrepreneurship and Coaching.

## **Musical skills in the Spanish *Grado* university degree in Early Childhood Education. How do Spanish university students view their preparation?**

In Spain, teacher education is regulated on a national level in conjunction with the guidelines that organize general educational levels. Each regional teaching administration nevertheless has a considerable margin to modify those guidelines: universities have a significant influence on how their syllabus is specified. Taking into account the regulation of Early Childhood Education as a career in Madrid universities, we studied how a group of trainees perceived the musical skills they were taught while studying toward a *Grado* degree in that specialty. We submitted a questionnaire regarding the self-perception of musical skills at the university level of training. The results show significant differences associated with the educational and socio-demographic variables we examined. Although further study and reflection is required in this field, the implications are already notable and show how future teachers in Early Childhood Education could be better trained.

Keywords: Student teaching, teacher education preparation, early childhood education, music education.

### **Introduction**

A total of 35,487 students were enrolled in Spanish public universities in the 2017-2018 term as trainees studying to become teachers in Early Childhood Education (Ministerio de Ciencia, Innovación y Universidades 2019). The Spanish Organic Law of Education, Article 92, specifies that teaching is a regulated profession; without a *Grado* (equivalent to a Bachelor's Degree) in that specialty, it is not permitted for a person to teach at the corresponding school level (Jefatura del Estado 2006). University syllabi for the career of Early Childhood Education are organized in compliance with Ministerial Ordinance

ECI/3854/2007, which lays out which requirements need to be fulfilled by students in that specialty (Ministerio de Educación y Ciencia 2007b).

*Educación Infantil*, or Early Childhood Education is a special branch of education oriented toward children from birth to the age of six: it seeks to promote their physical, affective, social, and intellectual development. Early Childhood Education is subdivided into two cycles: the first up to the age of three, and the second from ages 3 to 6 (Jefatura del Estado 2006). As the first cycle is normally not on offer in schools, but applied in nurseries, in the second cycle, the great majority of children in Spain are therefore enrolled in the second cycle (Consejo Escolar del Estado 2018).

The legal provisions that regulate the current *Grado* degree in Early Childhood Education (Orden Ministerial ECI/3854/2007) require, among other abilities, the following musical skills within the module “Music, Plastic Arts and Corporal Expression”. These are the skills that future Early Childhood Education specialists are supposed to acquire (Ministerio de Educación y Ciencia 2007b, 53738):

Knowing musical basics [...] of the curriculum in this stage, as well as theories regarding the acquisition and development of the corresponding skills.

Knowing and using songs to foster ear training, rhythm, and vocal training.

Knowing how to use games as a teaching resource, and knowing how to design learning activities based on game principles. Elaborating lesson plans that foment musical perception and expression, motor skills, drawing, and creativity. Analyzing audiovisual languages and their implications for teaching [...].

So these legal regulations show, according to international scientific researches (Sušić, 2018; Herzog, Sušić, and Benić, 2018), the necessity of including music in the curriculum because of the multiple beneficial effects on a child's general development.

In this respect, another provision to consider is Spanish Royal Decree 1594/2011 regarding teacher specialization at the early and primary educational levels, concerning the training of generalists as a point of study and consideration of many researchers (Hennessy 2017; Silveira and Díaz 2014), who think that these ones need more self-confidence into this field (Burak, 2019; deVries, 2011; Hash 2010). The decree stipulates that teachers in the early stages (nursery, kindergarten) should “impart all areas of the curriculum (Ministerio de Educación 2011, 116653). In other words, it establishes that all teachers entrusted with forming pupils ages 3 to 6 should possess the theoretical and practical knowledge which enables them to apply the three following areas (understood as areas of practical human activity): a) “Knowledge of oneself; personal autonomy” (Ministerio de Educación y Ciencia 2007a, 476); b) “Knowledge of one's surroundings” (478), and c) “Languages: communication and representation” (481). Therefore, the scope of music education is broader than merely a specialized discipline (Biasutti, 2010). Besides, curricula can offer a wider approach towards creative thinking about sound education (Randles and Ballantyne, 2018) and rethinking traditional tendencies in musical pedagogy (Joseph, 2006). Among these, knowledge for the purpose of music education and training is to be imparted in two or three university courses, the number of which varies from one university to another within the Autonomous Community of Madrid (in Spain, Autonomous Communities are regional governments with many specific regulations). Thus, according to these legal provisions, a future Early Childhood Education teacher is supposed to be able to apply musical teaching strategies that enable the child to relate satisfactorily with sound

events by fostering attitudes, creating skills, and solidifying concepts. This conception of music education is determined by the curricular guidelines of the Spanish educational system; admittedly, the subject can be approached from other angles in a more global context. Thus, for example, recent tendencies toward communicative approaches in music in the early years of the educational process have had encouraging results (Pitt 2020; Pitt and Welch 2020).

Taking all that is established by the Autonomous Community of Madrid in its Early Childhood Education curriculum into account, with this investigation we sought to learn more about the self-perceived level of preparation of a group of university students studying to obtain a *Grado* in that specialty.

Thus, to address the subject of the trainees' musical skills, we presented them with a questionnaire (authors, in press) covering several areas, all associated with how university students perceive their level of preparation in terms of music. Such matters need to be treated in conjunction with other variables, the knowledge of which is required if one wants to study the significant effect of certain factors on differences observed in responses to the questionnaire.

As a working hypothesis, we posited that significant differences among pedagogical and socio-demographic variables would be found among the students who responded to our survey. In this sense, we hope to find that the different pedagogical and sociodemographic variables can explain, at least in part, the differences existing in the 4 large categories that resulted from the validation process of the questionnaire (C1: knowledge concerning sound events and their potential didactic applications for Early Childhood Education; C2: knowledge associated with psychological processes, methodologies and resources for Early Childhood Education; C3: use and design of concrete didactic text-music applications for

Early Childhood Education; C4: knowledge related to different cultures and styles). In the same way, it is expected that these sociodemographic and pedagogical variables can significantly account for a percentage of the general variance of the evaluated construct in the questionnaire.

In this way, we hope to be able to obtain a first empirical approximation, supported by statistical results, of the students' self-perceived competences and the relations that those have between them.

## **Method**

### ***Setting and data collection***

This study is focused on the Autonomous Community of Madrid, a region in the center of Spain, with a population of over six and a half million inhabitants. All the students participating in the study belong to the Complutense University of Madrid.

The sample was obtained according to the criterion of subject availability. We handed out a pen-and-paper questionnaire to students enrolled in different academic years of study, second and third year mostly, who were attending music education courses at university. We were present while the students were completing the questionnaire in every classroom to which we were allowed access. We highlighted the study's voluntary nature and ensured anonymity. In order to not contaminate the sample no member of the research team had had any prior relationship with any of the respondents. Furthermore, Ethical approval for the study was obtained in accordance with the requirements for this type of research at the University. The participants were informed about the objective of the study and signed a consent document. All participants were volunteers and were informed of their right to withdraw at any time.

### *Measures*

The sample is made up of 209 trainees studying for a *Grado* (equivalent to Bachelor's) degree in Early Childhood Education. At the Complutense University of Madrid, when the sample was gathered, there were enrolled in the Early Childhood Music Education subject about 280 students. In terms of gender the sample is composed of 22 males (10.5%) and 187 females (89.5%). The participants have a mean age of 22.63 (*D.T.* = 2.91). Thirty students (14.4%) are in their second academic year, 178 of them (85.2%) are in third year, and one sole student (0.5%) is in 4th year.

Regarding the path through which participants gained access to university studies, among the 207 valid cases, 101 of them (48.8%) entered via the Spanish University Access Tests, also called *selectividad*; 104 participants (50.2%) were admitted after having attended a series of training courses, and two participants (1.0%) passed an access examination specifically designed for people older than 25. Two individuals in the sample (1.0%) did not indicate which mode of access enabled them to gain admittance to the Spanish university system.

Regarding whether participants had received musical training at the Early Childhood Education level (3-6 years old) or in primary school (6-12 years old), only seven participants (3.3%) indicated that they had not received such training, whereas 202 students (96.7%) indicated that they had.

Furthermore, 26 students (12.4%) indicated that they had not received musical training at secondary school level, whereas 183 (87.6%) indicated that they had.

From early childhood to secondary school diploma, 190 participants (90.9%) had not pursued any kind of official musical training apart from what is strictly obligatory, whereas

19 subjects (9.1%) indicated that they had attended music schools: among them, seven (3.3%) finished elementary music training and one of them (0.5%) had a music school diploma (from a *conservatorio profesional*). Moreover, a further 32 subjects (15.3%) indicated that they had learned music non-officially, outside a regulated or obligatory framework; furthermore, 21 students (10%) reported that they had trained certain musical abilities autodidactically.

### ***Instrument***

For this study, we used the *Questionnaire Regarding Musical Skills in Early Childhood Education* (authors in press). Featuring 25 items on a Likert-type scale with 5 possible answers (whereby “1” is “entirely disagree” and “5” is “entirely agree”), this questionnaire has great explanatory potential on the subject of future Early Childhood Education teachers’ music education skills. It follows a four-factor model: factor C1 (knowledge concerning sound events and their potential didactic applications for Early Childhood Education), composed of items 7, 8, 9, 10, 15, 16, 17, 18, 19, and 20; factor C2 (knowledge associated with psychological processes, methodologies and resources for Early Childhood Education), composed of items 1, 2, 3, 4, 5, and 6; factor C3 (use and design of concrete didactic text-music applications for Early Childhood Education), composed of items 21, 22, 23, 24, and 25; and factor C4 (knowledge related to different cultures and styles), made up of items 11, 12, 13, and 14.

The scale as a whole yields a Cronbach’s alpha of .930. By category, the reliability indices are .893 for factor C1 (10 items with an overall maximum score of 40); .834 for factor C2 (6 items with an overall maximum score of 30); .854 for factor C3 (4 items with an overall maximum score of 20); and .766 for factor C4 (5 items with an overall maximum



score of 25). According to the K-S test, the four subscales have good adjustment: C1 yields  $Z_{k-s} = .748$  ( $p = .631$ ); C2 yields  $Z_{k-s} = 1.245$  ( $p = .090$ ); C3 yields  $Z_{k-s} = 1.276$  ( $p = .077$ ); and C4 yields  $Z_{k-s} = .997$  ( $p = .273$ ).

Apart from the questionnaire in itself and the additional pertinent questions concerning the respondents' gender, age and academic year, we included further data. Thus, for instance, we asked what the respondents' path into the Spanish university system had been, and whether they had received musical instruction in all educational stages up to their secondary school diploma (*Bachillerato*). Furthermore, we included items asking whether the respondents had trained in music on an extracurricular basis, either formally or non-formally, and what level of training they had managed to conclude. We also included an item asking whether they had learned music autodidactically.

### *Analytic method*

To estimate the perceptions of these students who will soon be teachers, we first comment on the descriptive general results of the questionnaire. We start by verifying the scale's normality on general terms by applying the Kolmogorov-Smirnov test. Subsequently, we present various analyses of differences among group means (ANOVA; F-test) in function of pedagogical or socio-demographic variables. Moreover, in view of the differences among the populations we were comparing, we applied the non-parametrical Mann-Whitney U test on one occasion. We conclude with the explanatory approximation that the variables, treated as a whole, on a general scale using stepwise regression, likewise present various regression models applied to the subscales.

## **Results**

### *General treatment of the scale, and variance analysis in function of socio-pedagogical variables*

A first approach of the general scale's behavior on a whole in terms of normality distribution shows that it obeys a normal curve according to the statistic  $Z_{K-S} = .654$ ;  $p = .786$ . Globally, the mean reported by the students (82.34;  $S.D. = 17.30$ ) is significantly higher, according to the *Student's t-test*, ( $t_{208} = 6.137$ ;  $p = .000$ ) than the theoretical general mean (75 points).

### ***Analysis in terms of gender***

In the case of analysis of self-perceived skills in function of gender, significant differences were not found ( $F = .552$ ;  $p = .458$ ) between means of males (79.75;  $S.D. = 15.35$ ) and females (82.65;  $S.D. = 17.53$ ) (Table 1).

### ***Analysis in function of academic year of studies***

Regarding analysis in terms of academic year (Table 1), we have omitted the only individual who was in fourth year; thus, we have only taken into account the students who were in their 2nd and 3rd academic year. In this case, although still not being able to assume homogeneity of variance between groups ( $F_{Levene} = 4.753$ ;  $p = .030$ ), we do find significant mean differences ( $F_{Brown-Forsythe} = 6.409$ ;  $p = .016$ ;  $\eta^2 = .046$ ), whereby the mean of students in 3rd year (83.98;  $S.D. = 15.96$ ) was higher than that of those in second year (73.50;  $p = 21.71$ ) with a low effect size according to the criteria of Cohen (1988): the effect size is approx. 4.6%.

Table 1.

### ***Analysis in function of mode of access to university***

In this case we omitted those respondents ( $n = 4$ ) who had gained access to university through the exam for applicants over 25. We find significant mean differences ( $F = 8.810$ ;  $p = .003$ ;  $\eta^2 = .042$ ) between those who entered via the Spanish University Access Tests,

also called *selectividad* (78.17; *S.D.* = 17.65), and those who entered by attending a series of training courses (85.74; *S.D.* = 16.36): in the latter group, the mean is higher than in the former (Table 2). Moreover, the effect size of mode of access to university is low with respect to scale variance (4.2%).

Table 2.

***Analysis in function of having received musical training in university***

Mean differences were found between groups of subjects in function of whether they had attended music courses at university or not (Table 3:  $F = 11.694$ ;  $p = .001$ ;  $\eta^2 = .053$ ), with a size effect of 5.3%. The group of students who have attended university music courses features a higher mean (84.04; *S.D.* = 16.31) than that of those who have not attended any music course during their university training as Early Childhood Education teachers (72.95; *S.D.* = 19.76).

Table 3.

***Analysis in function of whether subjects had musical training at an EC or primary level***

Significant mean differences were found between those students who had or had not received music education at the EC or primary level (Table 4), both in parametric tests ( $F = 10.160$ ;  $p = .002$ ;  $\eta^2 = .047$ ), as in non-parametric ones ( $U_{Mann-Whitney} = 334.50$ ;  $Z = -2.369$ ;  $p = .018$ ). We opted to include the non-parametric contrast due to the difference in sample size between the two groups: one of them is very small ( $n = 7$ ). Thus, those students who have not had musical training at Early Childhood or primary level present a significantly lower mean (62.28; *S.D.* = 21.87) than that of students who have received such training at one or both levels (83.04; *S.D.* = 16.76).

Table 4.

***Analysis in function of having received music education in secondary school***

No significant mean differences ( $F = 1.607$ ;  $p = .206$ ) are found in terms of self-perceived skills in function of whether the subjects received music education in secondary school (*Secundaria* or *Bachillerato*) or not. Students who received music education at that level present a mean of 82.91 ( $S.D. = 16.55$ ), whereas those who did not present a mean of 78.32 ( $S.D. = 21.81$ ).

***Analysis in function of having received regulated extracurricular musical training***

Neither are significant mean differences found ( $F = .145$ ;  $p = .704$ ) between those students who had received some form of extracurricular musical training, e.g. in music schools (83.78;  $S.D. = 19.99$ ), or not (82.20;  $S.D. = 17.06$ ).

***Analysis in function of having received non-regulated extracurricular musical training***

However, mean differences do appear (Table 5:  $F = 6.161$ ;  $p = .014$ ;  $\eta^2 = .029$ ) between groups of students who have not pursued non-regulated extracurricular musical training, for instance private music lessons (81.09;  $S.D. = 16.92$ ), and those who have (89.25;  $S.D. = 18.03$ ). This variable's effect size is small with respect to the general variance factor: it is approx. 2.9%.

Table 5.

***Analysis in function of whether subjects were self-trained in music***

Significant differences appear in function of whether subjects had pursued autodidactic musical training at one point or another in their lives ( $F = 10.109$ ;  $p = .002$ ;  $\eta^2 = .047$ ), with a small size effect of approx. 4.7%. Those students who indicated that they had learned music autodidactically present a significantly higher mean (93.49;  $S.D. = 17.24$ ) than that of students who had not (81.10;  $S.D. = 16.90$ ) (Table 6).

Table 6.

***Regression model of all variables in the self-perceived skill scale***

Thus, as we were able to ascertain and as summarized in Table 7, significant differences appear in six of the variables we applied (Academic year; Mode of access to university; Attended university music course(s); Had music at EC or primary level; Learned music in an extracurricular non-regulated environment and Musical autodidact); on the other hand, in three further variables they are not significant (Gender; Had music in secondary school and Learned music in an extracurricular regulated environment).

Table 7.

After this analysis in detail, it is necessary to posit a general model associated with self-perceived musical skills, taking into account the sum of all the categories and of all the previously analyzed explanatory variables; a general approximation of which variables possess explanatory capacity with respect to the general questionnaire scale can thereby be achieved.

In the regression model, we introduced the following explanatory variables: gender, academic year, mode of access to university, musical training received at university, music education received at EC or primary level, non-regulated extracurricular musical training, and autodidactic musical training.

Thus, as shown in Table 8, we achieved a significant regression model ( $F = 8.613$ ;  $p = .000$ ;  $R^2 = .158$ ;  $D-W. = 1.705$ ) which explains approx. 16% of the variance of the general factor of self-perceived musical skill on the basis of the significant influence of academic year ( $\beta = .217$ ;  $t = 3.351$ ;  $p = .001$ ), of mode of access to university ( $\beta = .193$ ;  $t = 2.980$ ;  $p = .003$ ), of having received music education at an EC or primary level ( $\beta = .69$ ;  $t = 2.596$ ;  $p =$

.010), and of whether the subject learned music in a self-taught fashion ( $\beta = .203$ ;  $t = 2.855$ ;  $p = .005$ ). On the other hand, the following variables do not have significant explanatory capacity in the proposed model: whether or not the subject received non-regulated extracurricular musical training ( $\beta = .065$ ;  $t = .922$ ;  $p = .357$ ), and whether or not the subject received musical training at university ( $\beta = .035$ ;  $t = .351$ ;  $p = .726$ ).

Table 8.

### ***Regression analysis***

Taking the variables into account which have shown to exert a differentiating influence, we considered it necessary to posit a series of regression models to explain variations in scores. Thus, we posited four stepwise regressions that enable us to explain and evaluate the importance and representativeness (explanatory capacity) of the variations in scoring in each of the categories.

We found a significant regression model ( $F = 8.778$ ;  $p = .000$ ;  $R^2 = .161$ ;  $D-W = 1.671$ ) that explains ca. 16.1% of factor C1. From this model we omit the variable associated with whether or not the student attended a music course or several music courses at university, since it does not have explanatory capacity ( $\beta = .081$ ;  $t = .806$ ;  $p = .412$ ).

For factor C2 we found a significant regression model ( $F = 17.059$ ;  $p = .000$ ;  $R^2 = .192$ ;  $D-W = 1.603$ ) that explains approx. 19.2% of variance, omitting the variable associated with whether or not the student attended one or several music courses at university.

For component C3 we found a significant regression model ( $F = 8.948$ ;  $p = .000$ ;  $R^2 = .163$ ;  $D-W = 1.841$ ) that explains approx. 16.3% of the factor's variance; once again, we

exclude the variable associated with having attended music courses at university or not ( $\beta = .107$ ;  $t = 1.610$ ;  $p = .109$ ).

In the case of C4, we found a significant regression model ( $F = 3.890$ ;  $p = .049$ ;  $R^2 = .014$ ;  $D-W = 2.055$ ) that explains approx. 1.4% of the factor's variance on the basis of the significant presence ( $\beta = -.136$ ;  $t = -1.972$ ;  $p = .049$ ) of having attended music courses at university or not, while omitting the variable associated with having received music education at an EC or primary level ( $\beta = -.053$ ;  $t = -.746$ ;  $p = .457$ ).

To summarize: taking all variables of the four categories into account, in three of them (C1, knowledge concerning sound events and their didactic applications for Early Childhood Education; C2, knowledge associated with psychological processes, methodologies and resources for Early Childhood Education; and C3, use or design of concrete didactic text-music applications for Early Childhood Education) it is not relevant whether the students have attended university music courses while training to become Early Childhood Education teachers. Only in component C4 (knowledge related to different cultures and styles) does the fact of having attended university music courses appear to exert an influence.

## **Discussion**

In view of music's numerous beneficial effects on a child's general development, music education is increasingly becoming an imperative and a challenge in current educational practice (Sušić 2018); Sušić states that every educator should have some level of musical competence. Herzog, Sušić, and Benić (2018) point out that music and the visual arts are beneficial for emotional, cognitive, social and psychomotor development in early childhood; thus, Early Childhood Education teachers need to develop a certain level of competence in order to have the capacity to involve children in artistic activities. A general

preoccupation regarding the training of generalists has been shared in many countries of the world (Biasutti, Hennessy, and De Vugt-Jansen 2015; Hennessy 2017; Silveira and Díaz 2014).

Many studies point toward problems of self-confidence in the initial training undergone by teachers (Bartolome 2017; Burak 2019; deVries 2011; Gifford 1993; Hallam et al. 2009; Hash 2010; Jeanneret 1997; Mills 1989; Pitts 2002; Russell-Bowie 2009; Tokinan 2010). It thus becomes necessary to investigate what level of self-confidence is perceived by Spanish Early Childhood Education students – in other words, from the angle of the specific construct of self-efficacy, to ask them questions associated with those personal traits: “it is important to realize how closely academic and musical success are linked with self-confidence and identity in students minds” (Pitts 2002, 87). Since the generalists’ overall levels of self-confidence with regard to teaching music are low, they tend to avoid teaching music as a subject on a regular basis. The research presented in this paper shows that the training they have received in music on a university level is not as relevant as one would expect. However, the musical experience undergone by these future teachers during their very first schoolyears did indeed have relevance in their lives and contributed toward the development of necessary skills related to Early Childhood Education. In other words, as likewise noted by Temmerman (1991, 1997), past musical experiences and music education earlier in life tend to acquire a significant amount of importance in a teacher’s training.

Hennessy (2000) reported that students regard musical ability as something stable and invariable, rather than as a malleable trait. This may be due to the circumstance that they receive scant musical training and are involved in few activities that might enable them to improve their self-confidence to teach music in the classroom. Thus, in initial



university training, it would be important to add more musical activities to the syllabus, thereby devoting a greater amount of scheduled time to music education (Russell-Bowie 2009). It is important to promote the idea that musical abilities are not fixed and unmovable, and that they can be improved through training and education (Biasutti 2010). Students of pedagogy praise the quality of their music training but find that more time should be devoted to it in their study plans (Hallam et al. 2009).

According to De Vries (2011), a variety of factors impinges upon teachers' decision whether to teach music to their class or not, becoming clearly a challenge for generalists when teaching music, as a frequent consequence, these teachers choose not to teach music on a regular basis.

Notwithstanding, Early Childhood Education teachers play an important role in providing children with musical learning experiences as part of everyday life in the classroom. The results of this study have implications in the area of investigation about teacher training, and suggest that there is a need to conduct further research into the nature of educational processes. Such information can be of great value for college-level music professors who want to reflect upon the true efficacy of curricula and make decisions that help prepare the best possible educational practice (Bartolome 2017). In other words, a potential basis exists for a general re-evaluation of music curricula (Gifford 1993). It would be worthwhile to pursue further research along these lines, since results can harbor implications for the improvement of teachers' initial training, as well as for the implementation of future training programs that will bear an undeniable influence on the way Spanish children experience music. "When teachers become more confident and competent with learning and making music themselves, they are more likely to teach music

and to teach it successfully” (Russell-Bowie 2009, 34); thus, “there will be more likelihood of music education being taught in every classroom and to every child” (34).

### **Implications and Conclusions**

In the research reported in this article, we analyzed the Early Childhood Education trainees’ perception of their level of musical training, determining which pedagogical and sociodemographic variables exert a significant influence thereupon. The results of this study point clearly to certain aspects that have important implications regarding the manner in which Early Childhood Education students are trained to become future teachers of young children.

For quite some time, concern has been expressed that certain teachers might lack the necessary musical skills to teach the obligatory curriculum (Hallam et al. 2009). We acknowledge, in agreement with Wiggins and Wiggins (2008), that teaching objectives in any national educational system reflect what the lawmakers consider possible and appropriate for that culture: “every nation determines its own curricular framework and, worldwide, such documents speak to quality music experiences for students” (24). At the same time, the policies that determine who teaches music in any national system are associated with decisions regarding the role that music, as a subject, will play in the pupils’ educational development. The situation, however, turns out to be similar in educational environments other than Spain, such as those reflected in the statement by Wiggins and Wiggins that “music taught almost exclusively by generalists falls short of attaining the goals articulated in national curriculum documents” (24). As a consequence, a recommendation often expressed is to increase generalists’ confidence in teaching music, e.g. to dedicate more energy to reinforcing their knowledge of music and, thereby, their

skill in teaching it. In the early 1990s, Temmerman (1991) was already arguing that success in concretely applying declarations formulated in national curricula depends on teachers' abilities, knowledge and self-confidence. That observation has lost none of its relevance, and we find that the degree of confidence expressed by future teachers provides us with information that is important to evaluate.

The results of this study show, as likewise noted by Holden and Button (2006), that much still needs to be undertaken in order to provide non-specialist teachers with “effective long-term training and support to increase their music skills, subject knowledge, and confidence, to enable them to make a more marked difference to children’s music education” (23). We agree with those authors that there is a significant relation between teachers’ initial musical training, their musical qualifications, their personal interest in music, and their self-confidence in teaching it.

Regarding curriculum content, it would be recommendable to promote the concept that music can be used on different levels and that it is not only a specialized discipline (Biasutti 2010). At the same time, it would also be advisable to make greater use of students’ informal musical abilities: in other words, to aim for musical skills that are based on the informal learning and knowledge of music which they already possess (Carroll 2020; Poblete, Leguina, Masquiarán, and Carreño 2019; Seddon and Biasutti 2008).

Thus, we can perceive that at the Spanish university curricular level, albeit preliminarily, we must put the focus of teaching on improving skills in the four factors that are considered in the questionnaire used (in press): factor C1 (knowledge concerning sound events and their potential didactic applications for Early Childhood Education), factor C2 (knowledge associated with psychological processes, methodologies and resources for Early Childhood Education), factor C3 (use and design of concrete didactic

text-music applications for Early Childhood Education) and factor C4 (knowledge related to different cultures and styles).

At the same time and as indicated by Randles and Ballantyne (2018), it is advisable to promote curricula that offer a broader approach toward creative thinking in sound. Thereby, we are in line with Sušić (2018) who says that “preschool teachers, apart from formal education, can be responsible for suppressing children’s creative potential lest their own competencies and the awareness of the importance of nurturing imagination early on are well developed” (p. 125). This research, has tried to evaluate the own perceptions of our teacher education students’ current music competencies, and concludes that these students show security in music literacy, singing abilities and sense of rhythm but there was some problem when playing Orff’s or leading instruments.

We should not forget that music education is a platform of great use in approaching and rethinking cultural diversity, helping us to celebrate difference (Joseph 2006), thereby leading us to rethink traditional tendencies in musical pedagogy. All of these emphases could help students make connections between the development of their own skills and a variety of different teaching contexts (Bartolome 2017).

We regard this study, based on a sample gathered according to availability and on self-reported data, as a first foray into what might become an important line of investigation with the objective of improving Early Childhood Education syllabi in Spain. At this point, it would not be advisable to reach definite conclusions regarding the musical skills indicated by these trainees. In order to obtain results on a wider scale, more extensive research would be required, coming from other Spanish universities as well.

### **Authors’ Note**

All ideas expressed in this article should be attributed only to the authors.

### **Acknowledgments**

Authors are grateful to the University of xxxx.

### **Declaration of Conflicting Interests**

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### **Funding**

The authors disclosed the following financial support for the research, authorship, and/or publication of this article: Financed by the Government of Aragon (Reference Group S57\_17R EDUCAVIVA) and co-financed with Feder 2014-2020 “Construyendo Europa desde Aragón”.

### **References**

Authors (in press).

Bartolome, S. J. 2017. “Comparing field-teaching experiences: A longitudinal examination of preservice and first-year teacher perspectives.” *Journal of Research in Music Education* 65: 264-286.

Biasutti, M. 2010. “Investigating trainee music teachers' beliefs on musical abilities and learning: a quantitative study.” *Music Education Research* 12: 47-69.

Biasutti, M., S. Hennessy, and E. De Vugt-Jansen. 2015. “Confidence development in non-music specialist trainee primary teachers after an intensive programme.” *British Journal of Music Education* 32: 143-161.

Burak, S. 2019. “Self-efficacy of pre-school and primary school pre-service teachers in musical ability and music teaching.” *International Journal of Music Education* 37: 257-271.

- Carroll, C. L. 2020. "Seeing the invisible: Theorising connections between informal and formal musical knowledge." *Research Studies in Music Education* 42: 37-55 doi: 10.1177/1321103X18824641
- Consejo Escolar del Estado. 2018. *Informe 2018 sobre el estado del sistema educativo. Curso 2016-2017* [Report 2018 on the state of the education system. Academic year 2016-2017]. Madrid: MEFP.
- deVries, P. 2011. "The first year of teaching in primary school: Where is the place of music?" *International Journal of Education & the Arts* 12. <http://www.ijea.org/v12n2/>
- Gifford, E. 1993. "The musical training of primary teachers: Old problems, new insights and possible solutions." *British Journal of Music Education* 10: 33-46.
- Hallam, S., P. Burnard, A. Robertson, C. Saleh, V. Davies, L. Rogers, and D. Kokatsaki. 2009. "Trainee primary-school teachers' perceptions of their effectiveness in teaching music." *Music Education Research* 11: 221-240.
- Hash, P. M. 2010. "Preservice classroom teachers' attitudes toward music in the elementary curriculum." *Journal of Music Teacher Education* 19: 6-24.
- Hennessy, S. 2000. "Overcoming the red-feeling: The development of confidence to teach music in primary school amongst student teachers." *British Journal of Music Education* 17: 183-196.
- Hennessy, S. 2017. "Approaches to increasing the competence and confidence of student teachers to teach music in primary schools." *Education 3-13* 45: 689-700.
- Herzog, J., B. B. Sušić, and M. Z. Benić. 2018. "Pre-service early childhood and preschool education teachers' self-assessment of competences in visual arts and music." *Nova Prisetnost* 16: 579-592.

- Holden, H., and S. Button. 2006. "The teaching of music in the primary school by the nonmusic specialist." *British Journal of Music Education* 23: 23-38.
- Jeanneret, N. 1997. "Model for developing preserves primary teachers' confidence to teach music." *Bulletin of the Council for Research in Music Education* 133: 37-44.
- Jefatura del Estado. 2006. "Ley Orgánica 2/2006, de 3 de mayo, de Educación." [Organic Law 2/2006, of 3 May, on Education] *Boletín Oficial del Estado* 106: 17.158-17.207.
- Joseph, D. 2006. "Cultural understanding: rethinking music teacher education in a multicultural Australia." In Sentuhan: Proceedings of the 27th World Conference of the International Society for Music Education, *International Society for Music Education*, Nedlands, WA, 621-646.
- Mills, J. 1989. "The generalist primary teacher of music: A problem of confidence." *British Journal of Music Education* 6: 125-138.
- Ministerio de Ciencia, Innovación y Universidades. 2019. *Estadística de estudiantes universitarios. Curso 2017-2018* [Statistics on university students. Academic year 2017-2018]. Madrid: MCIU.
- Ministerio de Educación. 2011. "Real Decreto 1594/2011, de 4 de noviembre, 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." [Royal Decree 1594/2011, of 4 November, establishing the teaching specialities of the Teachers' Corps that carry out their functions in the stages of Infant Education and Primary Education regulated in Organic Law 2/2006, of 3 May, on Education] *Boletín Oficial del Estado* 270: 116652-116657.

- Ministerio de Educación y Ciencia. 2007a. “Real Decreto 1630/2006, de 29 de diciembre, por el que se establecen las enseñanzas mínimas del segundo ciclo de Educación infantil.” [Royal Decree 1630/2006, of 29 December, establishing the minimum levels of education in the second cycle of Infant Education] *Boletín Oficial del Estado* 4: 474-482.
- Ministerio de Educación y Ciencia. 2007b. “Orden ECI/3854/2007, de 27 de diciembre, por la 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 Infantil.” [Order ECI/3854/2007, of 27 December, which establishes the requirements for the verification of official university degrees that qualify for the exercise of the profession of Teacher in Early Childhood Education] *Boletín Oficial del Estado* 312: 53735-53738.
- Pitt, J. 2020. “Communicating through musical play: combining speech and language therapy practices with those of early childhood music education – the SALTMusic approach.” *Music Education Research* 22: 68-86.
- Pitt, J., and G. F. Welch. 2020. “Music in early education and care settings for communication and language support”. In *The Oxford Handbook of Early Childhood Music Learning and Development*, edited by M. Barrett, and G. F. Welch. Oxford: Oxford University Press.
- Pitts, S. E. 2002. “Changing Tunes: Musical experience and self-perception amongst school and university music students.” *Musicae Scientiae* 6: 73-92.
- Poblete, C., A. Leguina, N. Masquiarán, and B. Carreño. 2019. “Informal and non formal music experience: power, knowledge and learning in music teacher education in Chile.” *International Journal of Music Education* 37: 272-285.



- Randles, C., and J. Ballantyne. 2018. "Measuring self-perceptions of creative identity: a cross-cultural comparison of the creative identities of pre-service music teachers in the US and Australia." *Music Education Research* 20: 231-241.
- 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: 23-36.
- Seddon, F. A., and M. Biasutti. 2008. "Non-music specialist trainee primary school teachers' confidence in teaching music in the classroom." *Music Education Research* 10: 403-421.
- Silveira, J. M., and F. M. Diaz. 2014. "Student teaching in music: A content analysis of research journals in music education." *Journal of Music Teacher Education* 23: 92-104.
- Sušić, B. B. 2018. "Preschool teachers' music competencies based on preschool education students' self-assessment." *Croatian Journal of Education* 20: 113-129.
- Temmerman, N. 1991. "The philosophical foundations of music education: The case of primary music education in Australia." *British Journal of Music Education* 8: 149-159.
- Temmerman, N. 1997. "An investigation of undergraduate music education curriculum content in primary teacher education programmes in Australia." *International Journal of Music Education* 30: 26-34.
- Tokinan, B. O. 2010. "The evaluation of the perspectives of music teachers concerning the influence of the program from which they have graduated on the profession." *Procedia Social and Behavioral Sciences* 2: 4359-4365.

Wiggins, R. A., and J. Wiggins. 2008. "Primary music education in the absence of specialists." *International Journal of Education & the Arts* 9 (12).

<http://www.ijea.org/v9n12/>