







Construction of an instrument for assessing musical expressiveness in teachers and students in Higher Music Education

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Abstract

Introduction. Expressing and communicating emotions is one of the main functions of music.

Learning the skills involved in this communication is a central part of training performers; the

study of teachers' and students' conceptions of appropriate ways to improve expressiveness

can be considered a priority task for psychoeducational research. The aim of this study,

therefore, is to: a) validate an instrument for assessing such conceptions; b) learn how

teachers and students of higher levels of music education rate different teaching-learning

strategies of emotional expressiveness in music; and c) to compare these ratings between the

two groups.

Method. For this purpose, 229 persons (170 students and 59 teachers) from the Music

Conservatory of Madrid completed a questionnaire about improving expressiveness. Four

different strategies for teaching and learning expressiveness were included.

Results. There were certain statistically significant differences between groups in their

preferences for different strategies. The most important differences, however, were found in

within-group comparisons: the strategy based on the use of technical instructions received the

best ratings, whereas modelling was the strategy with the poorest ratings. These effects were

independent of gender and age. The theoretical factor structure had excellent fit to the data

(CFI=.95).

Discussion and conclusions. In conclusion, the two groups differed in their conceptions

about the best strategies for training in expressiveness, but they agreed on their preferences

for one strategy or another, with particular preference for the use of technical instructions.

The possible pedagogical implications of these differences are discussed, and this

questionnaire is recommended for use in educational settings.

Key words: Learning music, Higher Education, Emotion, Expression, Performance.

Resumen

Introducción. Una de las principales funciones de la música es la expresión y comunicación de emociones. El aprendizaje de las habilidades centradas en esta comunicación es una parte central en la formación de los intérpretes y, el estudio de las concepciones de profesores y alumnos sobre los modos adecuados de mejorar la expresividad puede considerarse una de las tareas prioritarias para la investigación psicoeducativa. Por ello, este trabajo está dirigido a: a) validar un instrumento para su evaluación; b) conocer la valoración de diferentes estrategias de enseñanza-aprendizaje de la expresividad emocional en la música, en profesores y alumnos de niveles superiores de educación musical y c) comparar esas valoraciones en ambos grupos.

Método. Para ello, 229 personas (170 estudiantes y 59 profesores) del Conservatorio Superior de Música de Madrid completaron un cuestionario sobre la mejora de la expresividad con cuatro estrategias distintas de enseñanza-aprendizaje.

Resultados. Se encontraron algunas diferencias estadísticamente significativas entre grupos respecto a las preferencias de dichos modelos. Se pueden destacar las diferencias en intragrupo: la estrategia basada en el uso de instrucciones técnicas fue la mejor valorada mientras que el modelado recibió la peor valoración. Estos efectos fueron independientes del sexo y la edad. Estos efectos fueron independientes del sexo y la edad.

Discusión o conclusión: En conclusión, ambos grupos difieren en sus concepciones sobre las estrategias óptimas para trabajar la expresividad, pero coinciden en las preferencias sobre una u otra estrategia, valorando especialmente el uso de instrucciones técnicas. Se discuten las posibles implicaciones pedagógicas y se propone este cuestionario como herramienta para su uso en contextos educativos.

Palabras clave: Aprendizaje musical, Educación Superior, Emoción, Expresión, Interpretación.

Introduction

Musical performance is mainly, though not exclusively, a means of expressing and communicating emotions, reflected both as basic emotions (Gabrielsson & Juslin, 2003) and as the evocation of emotions by aesthetic means (Doğantan-Dack, 2014). Emotional communication, moreover, is valued notably at different levels of learning (Juslin & Laukka, 2004). Emotional expressiveness depends to a large degree on the musical skills of the performer, so it is important to understand the expressive tools that make it possible to convey emotions to the hearer. There is currently ample evidence that expressive skills can be effectively taught and learned and that the development of musical skill involves a progressive increase in the conscious handling of technical and stylistic elements to achieve specific expressive effects (Meissner, 2017; Meissner & Timmers, 2019; Viellard, Roy & Peretz, 2012). Listeners (Juslin & Laukka, 2004) and musicians alike (Lindström, Juslin, Bresin & Williamon, 2003) underscore the importance of the need for expressive communication.

If we consider other related disciplines, such as body expression, certain recent studies suggest that they receive insufficient attention in teacher training programs in Spain (Sánchez & López, 2019). This is worth noting, since musical expression and the way it is learned depend largely on the performer's movement and body expression (Massie-Laberge, Cosette & Wanderley, 2020). Thus, despite an observable intention in the field of music education to shift from a paradigm of knowledge accumulation and virtuosity, toward a more constructivist position (Torrado & Pozo, 2008), most music teachers seem to stick with traditional teaching focused on the acquisition of teacher-supervised outcomes (Bautista & Pérez Echevarría, 2008; López Íñiguez, Pozo & de Dios, 2014). The explicit constructivist message has not meant a real change in the classroom (Garnett, 2013; Karlsson & Juslin, 2008).

Along these lines, some studies that examine actual classroom practice suggest that expressive abilities tend not to be explicitly worked on, whether with specific tasks or through specific indications in the curriculum (Karlsson & Juslin, 2008; Young, Burwell, & Pickup, 2003). In some cases, certain related aspects are merely mentioned, so that a general artistic understanding of the piece can be grasped (Chaffin & Lemieux, 2005). Consequently, the student may not receive corrective feedback on his or her expressive performance.

Although research in this field is still scarce, different proposals for the improvement of expressive skills in musicians have been tried. Some examples are: the assessment of a specific training program with music students, where they achieved greater emotional involvement with the piece; greater structural understanding and improved expressive performance (Sloboda, Gayford & Minassian, 2003); the use of cognitive feedback in musicians during their performances, with significant improvements in emotional communication (Juslin, Karlsson, Lindström, Friberg & Schoonderwaldt, 2006); dialogic strategies, based on dialogue more than the teacher's one-directional instruction (Meissner & Timmers, 2019; Meissner & Timmers, 2020); and the use of different representation systems to reconstruct one's own musical experience (Pozo, Torrado & Pérez-Echeverría, 2019).

In this line, Woody (2006) compared the results of three strategies for learning expressiveness and found that they had similar effectiveness, although: a) imitation or modeling showed small but consistent improvements; b) the use of metaphors and images was related to longer-term changes but not always in the expected direction; c) use of specific instructions seemed to produce more benefits for people at more advanced levels.

On the other hand, some authors indicate that the main instructional strategy in music class is the teacher's discourse (Young et al., 2003). In any case, even though the generalization of this result is somewhat questionable, it is significant that the use of one specific strategy or another seems to be highly influenced by teacher opinions about the nature of expressiveness in music (Brenner & Strand, 2013). One such belief is that verbal instructions for using specific mechanisms produce an unnatural result, or simulated expressiveness (Williamson, 2014), leading certain teachers to avoid the use of such instructions, and to avoid trying to improve expressiveness in students who they believe already have natural potential, so as not to affect it. Although the empirical evidence indicates that these ideas and other similar ones are inadequate, they tend to be reaffirmed and are very resistant to change; hence, they may have a direct impact on daily classroom practice (Juslin & Persson, 2002).

In summary, although several well-known, important authors have been indicating for decades that music education should not be exclusively focused on technique, due to the risk of producing musicians without expressiveness (e.g., Marchand, 1975), the need to explicitly include elements of musical expression in formal music education has only recently been

taken into serious consideration. The traditional approach to doing this has involved four basic strategies, according to Juslin et al. (2006):

- 1) Musical modeling: the teachers acts as a model and it is assumed that the student will learn by imitation.
- 2) Metaphors and images: the teacher gives instructions to the student, such as, "now everything becomes dark", or "this melody flows like water in a stream", referring to the representation of images.
- 3) Having the student focus on his or her own emotions: guidelines are offered to help the student focus on how he or she feels while performing a musical text, with the assumption that the emotions activated will be transferred to the resulting sound and will facilitate adequate emotional expression.
- 4) Focusing on technical performance aspects: provide specific guidelines on how to change aspects of the sound, in order to achieve a more expressive meaning.

In any case, distinguishing between different strategies in actual classroom practice is somewhat arbitrary; a teacher will ideally use the different strategies either alone or in combination (Meissner, 2017), depending on the specific needs of each student, their personal characteristics and circumstances and the objectives being pursued at each moment. But in order to carry out this action, the teacher must be aware of these strategies, be able to identify them and make appropriate use of them, considering the pedagogical objectives established for improving expressiveness in the student.

Objectives and hypotheses

This study begins with the hypothesis that participants have a preference for a particular strategy, and that the instrument that was developed is valid. Regarding the instrument of measure, each of the strategies is initially expected to represent one factor, differentiated from the other factors, and that latent factors will present significant covariations between them. It is also proposed that the two groups, students and teachers, would differ in their opinion about each of the four strategies, given that they have received different musical instruction (Bautista & Pérez-Echevarría, 2008). In addition, it is hypothesized that there will be within-group differences of opinion regarding the proposed strategies.

According to Susan Hallam (2010) and Casas-Mas, Pozo and Montero (2014), studying students' and teachers' conceptions and estimations should be a primary goal for research in music education, considering that they have a potentially important, moderating role in how music is taught and learned (Bonastre, Muñoz, & Timmers, 2017; González Rollo & Bautista, 2018). Therefore, the main objectives of this study were: to learn students' and teachers' views on these strategies for teaching and learning expressiveness in music; to develop and validate an instrument to achieve this objective; and, finally, to discover if there are differences in conceptions among the participants, students and teachers of higher levels of musical education.

Method

Participants

The sample was composed of teachers and students from the *Real Conservatorio Superior de Música de Madrid* (RCSMM), Spain [Madrid Royal Conservatory of Music]. A total of 229 individuals completed questionnaires: 170 students, of which 49.7% women (mean age=21.5, standard deviation (SD)=3.5; range:17-35) and 50.3% were men (mean age=21.4, SD=3.1; range:18-30); and 59 teachers, 59.3% women (mean age=40.1; SD=8.3; range: 23-56) and 40.7% men (mean age=43.0, SD=11.6; range:23-67).

Sampling was incidental: we attempted to get the highest possible number of participating students and teachers. Given the main goals of the study, we did not establish a minimum sample size. However, for our most demanding analysis in terms of statistical power (Confirmatory Factor Analysis), a degree of overdetermination is considered necessary, that is, involvement of 5 to 10 persons per variable included (MacCallum, Widaman, Zhang & Hong, 1999). Sixteen items are considered in this study, we would therefore need a minimum of 80-160 subjects to make reliable analyses. The final sample represents a sizable percentage of the conservatory's students and teachers, and also fits the minimum statistical criteria. Moreover, given that the RCSMM has students from every part of Spain, the sample might allow us to cautiously generalize results to the whole country in Higher Music Education.¹

¹ Although official data are not published, we took into account the words of the conservatory director in the website welcome message: "The Royal Conservatory receives students from all autonomous regions of Spain and from different continents".

Instruments

We developed a questionnaire to assess different facets of each of the four strategies for teaching and learning expressiveness in music, as described above. It was based on previous studies about actual strategies used in the classroom (e.g., Juslin et al., 2006). An initial version was completed by a pilot group of students (10), after which it was slightly modified and reworded in the light of their comments on their understanding of the questions and vignettes. The questionnaire was then evaluated by four external experts, and small corrections were made according to their suggestions, resulting in the final version. The questionnaire comprises 20 Likert type items with four response alternatives (from 1, "not at all" to 4, "very much"). Responses indicated extent of agreement with five statements for each subscale, each referring to a specific example of teaching and type of strategy with regard to expressiveness. The five items addressed the following four aspects: a) as a teacher, would you teach expressiveness in the way shown in the example; b) do you think this method is right; c) do you think that the student will learn correctly by using this method; and d) do you think that this is the best strategy for improving expressiveness. An additional general question asked whether, as a teacher or a student, they had previously experienced the situation described in the example (specific items are given in detail, see tables presented in the Results section). The additional question was included in descriptive analyses and, besides its descriptive function, it had the potential role of revealing associations between conceptions about expressiveness and the participant's personal experience. It was not included, however, in the computation of subscale total scores or in the rest of the statistical analyses, because the response to this question is not based on personal conceptions. Total scores for each strategy were calculated by adding the scores from the other four items, for a possible range of 4 to 16.

Each example for the four strategies was presented as narrative vignette: a detailed description shows the teacher acting according to one specific strategy. Specific examples are available in other previous work (Bonastre & Timmers, 2019) and available upon request to the first of author of the present study. The example of modelling is presented in Figure 1. A benefit of using vignettes is that the meaning is clear and ambiguity is avoided. This method has been widely used in educational research (e.g., Hughes & Huby, 2004).

Figure 1. Example of vignette for a situation of teaching expressivity through modelling.

The student plays a passage, then the teacher gets up and says: 'Like this, do you see the difference? Look at what I am doing. Can you try to do it vourself?'

Procedure

We collected information from students and teachers of the RCSMM through distribution of questionnaires. All of them were asked to participate and collaborate and the aims of the study were briefly explained. A verbal consent form was linked to the voluntary return of completed questionnaires. All participants were informed that participation was entirely optional and all their responses would be anonymous.

Data analysis

First, we analyzed the factor structure of the questionnaire using Confirmatory Factor Analysis (CFA). The model analyzed (see Figure 2 below) included four latent factors, one for each strategy, each of which was associated with the four items for its strategy; covariances between factors were estimated freely. In order to obtain statistical identification, the factor weight of the first item in each factor was set to 1, correlations between measurement errors were set to 0 and coefficients between measurement errors and related item were set to 1. The estimation method was *ADF* (Asymptotically Distribution Free), given its potential robustness in the case of a possible lack of multivariate normality, and its adequacy for data analysis with categorical outcomes.

Different goodness-of-fit indices were used to assess model fit, according to the usual recommendations: nonsignificant chi-square; chi-square/Degrees of Freedom (*CMIN/DF*) <5; *CFI*>.90; *GFI*>.90; and *RMSEA*<.06 (Bentler, 1990). Internal consistency was estimated for the subscales and a possible total scale using Cronbach's alpha coefficient. Although the criteria for interpreting this coefficient are also arbitrary, it is usually accepted that values higher than .80 are good and over .90 are excellent (e.g., De Vellis, 2003; Lance, Butts, & Michels, 2006).

We then performed descriptive analyses in each group (students and teachers), mean and standard deviation for all items (including the question not included in the total scores). Means were compared through T-tests for independent samples. Additionally, effect sizes

(Hedges' g) were estimated for each comparison. g is an unbiased version of Cohen's well-known d statistic, and the usual cut-off criteria for interpreting d can be assumed (Cohen, 1988): under 0.20 is an irrelevant effect, between 0.20 and 0.50 a small effect, between 0.50 and 0.80 a medium effect, and higher than 0.80 a large effect. These criteria, of course, are arbitrary, and the relevance of an effect depends on the specific field of the study. Given that the Dependent Variables (VDs) in the case of item contrast are categorical, and the score range is limited (1-4), we also performed nonparametric contrasts (Wilcoxon's W). This analysis does not assume normality or symmetry as a T-test does. In the case of discrepancy between the two types of tests, this difference will be specifically indicated. We checked for normality (Shapiro-Francia) for total measures of the four scales that assessed teaching and learning of expressiveness: a value of p>.05 allows an assumption of normal score distribution.

Within-group differences for each subscale were analyzed using T-tests for matched samples, both for the whole sample and separately by groups. In this case we do not compare differences between groups but differences between variables in the same group. Likewise, reported frequencies of each strategy were compared using T-tests for matched samples, and separately by group, in other words, how often they reported to have personally experienced each strategy type in the classroom (the question not included in the computation of total scores for each subscale).

Finally, we performed a multivariate regression analysis for a twofold purpose: to test differences between groups under more restrictive conditions (statistically controlling for gender) and decreasing the probability of type I errors due to multiple comparisons. Scores on the four scales of teaching and learning expressiveness were dependent variables (DVs), group was the independent variable (IV) and gender a covariate (male=0, considered as reference category). After conducting the omnibus test, specific effects for each strategy were analyzed, as well as the possible existence of interactions between group and gender. The analysis included estimation of an intercept of the function.

All statistical analyses were performed using STATA software for Windows, release 13.1, and MPlus 6.0.

Results

First, regarding the Confirmatory Factor Analysis of the questionnaire structure, there was adequate fit for the total model (Chi-square (98) = 238.9, p < .001; CMIN/DF = 2.44; CFI = .948; TLI = .936; RMSEA = .082 (90% CI: .069, .096). All factor weights were high and statistically significant (p < .001) and there was no evidence of crossed loading. Estimated covariances between strategies were very low, except between metaphors and emotions (covariance=0.60). Internal consistency (Cronbach's alpha coefficient) was high for each subscale and for the total scale (over .90 in all cases). Nonstandardized coefficients for each item in the theoretical model are shown in Table 3. The structure of the model with standardized weights is presented in Figure 2.

Table 1. Results of the Confirmatory Factor Analysis of the assessment scale on teaching expressiveness in music.

Variables	Nonstandardized weights (SE)	Confidence Interval (95%)		
MODELLING				
If you were to teach class, do you think that you would do it this way?	1.0			
Do you think that this method is right?	1.05 (0.06)	0.94. 1.17		
Do you think that the student will learn correctly?	0.97 (0.06)	0.86. 1.08		
Do you think that this is the best way to improve music expressiveness?	0.89 (0.06)	0.76. 1.01		
METAPHORS OR IMAGES				
If you were to teach class, do you think that you would do it this way?	1.0			
Do you think that this method is right?	0.97 (0.06)	0.85. 1.10		
Do you think that the student will learn correctly?	0.99 (0.06)	0.86. 1.11		
Do you think that this is the best way to improve music expressiveness?	0.94 (0.07)	0.79. 1.08		
USING ONE'S OWN EMOTIONS				
If you were to teach class, do you think that you would do it this way?	1.0			
Do you think that this method is right?	0.99 (0.06)	0.88. 1.11		
Do you think that the student will learn correctly?	1.04 (0.06)	0.94. 1.16		
Do you think that this is the best way to improve music expressiveness?	0.98 (0.06)	0.86. 1.10		
TECHNIQUE				
If you were to teach class, do you think that you would do it this way?	1.0			
Do you think that this method is right?	1.16 (0.08)	1.01. 1.32		
Do you think that the student will learn correctly?	1.09 (0.08)	0.94. 1.24		
Do you think that this is the best way to improve music expressiveness?	1.08 (0.08)	0.92. 1.25		

⁻ SE: standard error.- All weights were statistically significant with p<.001.

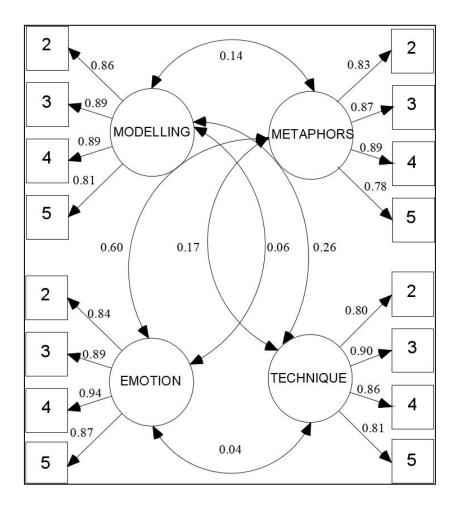


Figure 2. Graphic representation of the factor structure of the strategy model with standardized weights between latent factors and their items.

When comparing total scores of teachers and students on each of the four subscales of teaching and learning expressiveness, there were statistically significant differences only for the use of metaphors or images (t(223)=2.46; p=.015), with a higher score for students, although the effect size was small (g=0.37). Normality of the total scores was tested (Shapiro-Francia) and confirmed (p>.05), allowing the use of total scores as normal for the rest of the analyses. In between-group comparisons of specific items, differences appeared only in two items, both from the metaphors or images scale: thinking that this method is right (t(224)=2.44; p=.015) and considering it the best strategy (t(225)=2.50; p=.013). Students had higher scores and effect sizes were medium. These results with descriptive data for scales and

specific items are presented in Table 1. In addition, according to non-parametric contrasts, there were statistically significant differences in another two items (also from the metaphors scale) that did not appear in parametric contrasts: whether they would use that strategy as teachers (z=2.08; p=.038) and that the student will learn correctly with this method (z=2.46; p=.014). Again, students obtained higher scores in those items. There were no additional discrepancies between parametric and non-parametric tests.

Table 2. Descriptive data and comparison between students and teachers.

	Students Teachers		4 ()*	ata
	Mean (SD)	Mean (SD)	t(p)*	g^*
Modelling	8.81 (3.21)	8.93 (3.26)	0.25(.807)	0.04
Have you ever been in a situation like that?	2.96 (0.86)	2.88 (1.00)	0.6 (.543)	0.09
If you were to teach class, do you think that	2.22 (0.92)	2.29 (0.95)	0.5 (.615)	0.08
you would do it this way?				
Do you think that this method is right?	2.35 (0.96)	2.31 (0.91)	0.3 (.739)	0.05
Do you think that the student will learn correctly?	2.25 (0.85)	2.25 (0.88)	0.0 (.999)	0.00
Do you think that this is the best way to improve music expressiveness?	1.99 (0.88)	2.12 (0.85)	1.0 (.313)	0.15
Metaphors or images	11.44 (2.66)	10.40 (3.07)	2.5 (.015)	0.37
Have you ever been in a situation like that?	2.75 (0.96)	2.68 (0.95)	0.5 (.642)	0.07
If you were to teach class, do you think that	2.78 (0.81)	2.54 (0.88)	1.9 (.057)	0.29
you would do it this way?				
Do you think that this method is right?	3.03 (0.76)	2.75 (0.80)	2.4 (.015)	0.37
Do you think that the student will learn correctly?	2.89 (0.71)	2.71 (0.85)	1.6 (.123)	0.23
Do you think that this is the best way to	2.72 (0.81)	2.41 (0.82)	2.5 (.013)	0.38
improve music expressiveness?				
Using one's own emotions	10.66 (3.13)	10.32 (3.13)	0.7 (.488)	0.11
Have you ever been in a situation like that?	2.60 (0.97)	2.62 (1.01)	0.21 (.834	0.03
If you were to teach class, do you think that you would do it this way?	2.67 (0.92)	2.55 (0.80)	0.9 (.373)	0.14
Do you think that this method is right?	2.78 (0.84)	2.66 (0.86)	1.0 (.334)	0.15
Do you think that the student will learn correctly?	2.66 (0.86)	2.66 (0.83)	0.0 (.967)	0.01
Do you think that this is the best way to improve music expressiveness?	2.53 (0.84)	2.45 (0.89)	0.6 (.525)	0.10
Technique	11.96 (2.72)	12.23 (2.78)	0.6 (.529)	0.10
Have you ever been in a situation like that?	3.20 (0.84)	3.30 (0.82)	0.8 (.435)	0.12
If you were to teach class, do you think that you would do it this way?	3.04 (0.76)	3.14 (0.72)	0.9 (.395)	0.13
Do you think that this method is right?	3.12 (0.77)	3.14 (0.77)	0.2 (.831)	0.03
Do you think that the student will learn correctly?	2.99 (0.73)	3.09 (0.85)	0.8 (.425)	0.12
Do you think that this is the best way to improve music expressiveness?	2.82 (0.83)	2.86 (0.77)	0.3 (.740)	0.05

Note. SD: standard deviation; t: Student's t with degrees of freedom=N-2; g: Hedges' g effect sizes.; rows highlighted in bold indicate comparisons with statistically significant differences (p<.05); *t and g are expressed in absolute values. Contrasts are bilateral and the direction of the difference must be interpreted according to descriptive data.

In the within-group comparisons, there was a similar pattern for the whole sample as well as separately by groups. The strategy based on using technique was the most highly valued, with statistically significant differences from the other three, except that the difference between technique and metaphors appeared only for teachers. In addition, metaphors was more highly valued than the other two, except that teachers showed no preference between this strategy and using one's own emotions. Finally, emotions was more highly valued than modelling in every comparison. Effect sizes were generally medium-high for comparisons between technique and the other strategies, and between modelling and the rest. A summary of all comparisons is presented in Table 3.

Within-group comparisons of whether the subject had been in the situations described in each strategy showed that technique was the most frequent situation in both groups, showing statistically significant differences from the other three strategies (p<.001 in all cases). Effect sizes were moderate to high (g>0.50, maximum of 0.88), except for modelling in the case of students (g=0.27). Among students, modelling was more frequent than metaphors (p=.029; g=0.22) and than use of emotions (p<.001; g=0.41). Among teachers, modelling was more frequently used than metaphors (p=.047; g=0.36), but not than emotions (p=.077; g=0.26). Metaphors was more frequent than emotions only in the case of students, although with a small effect size (p=.031; g=0.21), and there was no difference among teachers (p=.582; g=0.08).

Finally, results of multiple regression analyses --using scores in each strategy as DVs, group as IV, and gender and age as co-variables-- reveal the same pattern of results found in univariate analyses: in omnibus contrasts, a statistically significant effect was found only for the metaphors score (F(2,209)=4.43; p=.013). In specific comparisons for each strategy, only group, but not gender, had a statistically significant effect in the case of metaphors, where student scores were higher (coefficient: 1.22; 95% CI: 0.35, 2.08; t(209)=2.78, p=.006).

Table 3. Results of comparisons between strategies for teaching expressiveness, for each group and for the whole sample

644	Metaphors		Emotions		Technique	
Strategies	t (p)*	g (CI 95%)*	t (p)	g (CI 95%)	t (p)	g (CI 95%)
Students						
Modelling	9.2 (<.001)	0.88 (0.66.1.11)	5.4 (p<.001)	0.58 (0.36.0.80)	10.5 (<.001)	1.06 (0.83.1.29)
Metaphors			-3.6 (.001)	-0.27 (-0.050.48)	1.6 (.102)	0.20 (-0.02.0.41)
Emotions					4.0 (<.001)	0.44 (0.23.0.66)
Teachers						
Modelling	2.45 (.018)	0.46 (0.09.0.83)	2.53 (.014)	0.43 (0.06.0.80)	6.9 (<.001)	1.08 (0.69.1.47)
Metaphors			-0.1 (.923)	-0.02 (-0.35.0.39)	3.7 (.001)	0.62 (0.25.0.99)
Emotions					3.5 (.001)	0.64 (0.26.1.01)
Total						
Modelling	8.8 (<.001)	0.77 (0.58.0.96)	5.9 (<.001)	0.55 (0.36.0.73)	12.6 (<.001)	1.07 (0.87.1.27)
Metaphors			-3.2 (.002)	-0.20 (-0.390.01)	3.3 (.001)	0.31 (0.12.0.50)
Emotions					5.2 (<.001)	0.50 (0.31.0.69)

^{*} t: Student's t with degrees of freedom=N-1; g: Hedges' g effect size in absolute value; CI: Confidence Interval at 95%.

Discussion and Conclusions

As mentioned above, research on the teaching-learning methods of emotional expressiveness in music, and particularly on teachers' and students' conceptions of these methods in higher education, is somewhat lacking. Such conceptions can influence actual classroom practice; the present study represents an empirical contribution in this regard, offering useful information and providing an instrument that helps improve teaching practice (and the training of future teachers) through reflecting on the test results and gaining an understanding of existing conceptions about strategies for learning musical expressiveness.

⁻ Relevant descriptive values for each comparison are shown at Table 1.

The main objective of the study was to validate an instrument that would assess conceptions about the usual methods of teaching musical expressiveness. Cronbach alpha values were very high for each of the four subscales (>.90 in all cases), especially considering the low number of items on each scale, thus suggesting excellent internal consistency (De Vellis, 2003; Lance et al., 2006). Likewise, the factorial model of the four different strategies presented adequate fit to the data in the CFA (e.g., *CFI* = .948), and there were no indications of inadequate factor weights for any item in the theoretical scale, or crossed factor loadings. However, the small size of the teacher sample (for this type of analysis), did not allow us to carry out multi-group CFAs to verify whether the structure was invariant between groups. In summary, the results allow us to consider the factor structure of the questionnaire solid and consistent.

Moreover, the latent factors are all correlated between themselves, thereby highlighting the combined use of different strategies in actual classrooms, as previous studies suggest (Meissner, 2017). And while the strategies used in this study are those most often exercised in teaching expressiveness, certain studies suggest that other alternative strategies can be useful for improving expressiveness. The possible greater effectiveness of these and other approaches, however, may not have an immediate, direct impact on classroom practice and the strategies studied here, where the everyday experience of music classrooms tends to mix in elements from more than one strategy, and to incorporate ideas from other perspectives.

On the other hand, a number of studies indicate that the performer's movements and gestures clearly increase the listeners' understanding of their expressive intentions (Dahl & Friberg, 2007). The strategies discussed here relate fully to body expression and gestures, in line with different studies that support the idea that the conscious use of gesture and expressive movement can be a powerful pedagogical tool in instrumental lessons (Massie-Laberge, Cosette & Wanderley, 2019). In today's teaching practices, movement is a part of performance, and can be observed and experienced in the four strategies discussed.

Next, differences were not found between the two groups when asked if they had been in each of the situations described in the questionnaire. The participants had experienced these situations, but there was a between-group difference on the subscale for use of metaphors or images: students scored higher than teachers (medium effect size: g = 0.37). It is possible that teachers, more so than students, give more weight to the negative side of this strategy, concerning the subjective perception of information, than to its advantages. Juslin et al.

(2006) tell us that metaphors, while often very evocative, are inevitably ambiguous, depending on each student's interpretation from their particular personal experience. Moreover, the Spanish legislation on music education, not to mention other areas of education, increasingly adopts an approach where creativity and imagination are highly valued; this may have had some effect on the younger group --the students-- and their higher estimation of the strategy that emphasizes this aspect.

Of more interest are the within-group differences found when analyzing the total scores in each strategy. With some small nuances, both groups equally considered technique to be the most suitable way to teach expressiveness, while modeling clearly took the lowest rating. Consistent with this result, use of the technique strategy was reported by both students and teachers as the most common in their experience as teacher or learner. Previous research, mainly at earlier levels of education than what is analyzed in this study, has suggested that modeling is the most common method in the music classroom (e.g., Juslin et al., 2006). This discrepancy may then be a consequence of educational level: in higher education, students' technical level and skills logically are higher --for them to learn and expressively perform a musical piece requires greater precision and awareness in the act of performing. On the other hand, there are data to suggest that modeling is rated more highly when it is being applied with young children (Bonastre & Timmers, 2019). In fact, just as there are different ways of modeling, this strategy is considered to be useful depending on when, how and with whom it is applied; it is inadequate in the presence of certain contextual or student factors (Haston, 2007).

The results also indicate that modeling, though the least valued strategy for teaching expressiveness, was clearly the second most frequent strategy in the experience of both groups. The participants in this study seem to believe that the use of this strategy in higher education is frequent but not effective. The negative rating it receives in comparison to the other options may reflect a future shift in the use of educational strategies and models. If participants consider that other strategies can bring benefits to the learning of expressiveness (even if they felt such strategies were used infrequently in the classroom), this may help start a change and possible improvement in the activities that form part of the usual practice in higher education. This is particularly relevant given that a significant number of the current students will be future teachers at all educational levels.

This study has several limitations. Above all, as previously mentioned, the size of one subsample (teachers) is rather small. In any case, the total sample may be considered a good representation of the overall group, with respect to the number of teachers involved. For the analyses carried out here, the teacher sample may be considered sufficient, even though some effects with small effect sizes may have been partially hidden. Additionally, incidental sampling and taking the sample from a single educational institution may not allow the results to be fully generalized. Even though the RCSMM has a wide variety of national and international students, as already noted, we must use precaution when applying the results of this study to institutions in other regions of Spain or other countries.

The between-group differences in their conceptions about expressiveness, specifically the students' better estimation of the use of metaphors or images, could be taken into account in course plans pertaining to teaching expressiveness. The preference for one strategy or another may reflect not merely the value perceived, but also a specific classroom use by teachers (or future teachers) in fostering actual improvement in students' expressiveness.

The validated assessment instrument is put forward as a useful tool in educational and research contexts that address expressiveness in music. This pedagogical tool can equip the classroom with an explicit experience and the possibility to discuss expressiveness with students, as a starting point for actual improved results in expressive musical communication.

Although the strategies assessed here are important in current practice in the teaching-learning process, we must consider that new directions in methodology can expand and improve the use of these strategies. Such is the case of the dialogic method, a type of instructional strategy based on dialogue between student and teacher instead of exclusively one-way instruction (Karlsson, 2008). This method seems to have worked well in several recent studies with children (Meissner & Timmers, 2020); it is totally compatible with the strategies proposed here by adding feedback into the pedagogical action. Likewise, the use of different systems of representation to reconstruct one's own musical experience is proving to be useful (Pozo, Torrado & Pérez-Echeverría, 2019), and can also be compatible with the strategies we have assessed.

Future studies could analyze the validity of this assessment instrument in greater depth.

Also requiring further study is the effect that the teacher vs. learner role may have on the two

groups' conceptions and on the educational process itself. To explore this, longitudinal and qualitative studies could be conducted, making to possible to better define what is being done, for what purpose, and how this might be enhanced. A better understanding of the relationships between the strategies assessed in the present questionnaire --strategies used most commonly by tradition-- and alternatives that have been recently proposed for improving expressiveness in musical performance, would be highly valuable. This would help in optimizing available pedagogical tools and encouraging greater awareness and sensitization in the educational community towards this vital aspect of music and, hence, of training musicians at all levels.

References

- Bautista, A. & Pérez-Echeverría, M.P. (2008). ¿Qué consideran los profesores de instrumento que deben enseñar en sus clases? [What do instrument teachers feel they should teach in their classes?] *Cultura y Educación*, 20, 17-34. doi:10.1174/113564008783781477.
- Bentler, P.M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238-246. https://doi.org/10.1037/0033-2909.107.2.238.
- Bonastre, C., Muñoz, E., & Timmers; R. (2017). Conceptions about teaching and learning of expressivity in music among Higher Education teachers and students. *British Journal of Music Education*, 34, 277-290. doi: 10.1017/S0265051716000462
- Bonastre, C. & Timmers, R. (2019). Comparison of beliefs about teaching and learning of emotional expression in music performance between Spanish and English HE students of music. *Psychology of Music*, 1-16. https://doi.org/10.1177/0305735619842366
- Brenner, B. & Strand, K. (2013). A case study of teaching musical expression to young performers. *Journal of Research in Music Education*, 61, 80-96. https://doi.org/10.1177/0022429412474826.
- Broomhead, P. (2006). A Study of Instructional Strategies for Teaching Expressive Performance in the Choral Rehearsal. *Bulletin of the Council for Research in Music Education*, 167, 7-20. https://www.jstor.org/stable/40319286.

- Casas-Mas, A., Pozo, J.I., & Montero, I. (2014). The influence of musical learning cultures on the construction of teaching-learning conceptions. *British Journal of Music Education*, 31, 319-342. https://doi.org/10.1017/S0265051714000096.
- Chaffin, R. & Lemieux, A.F. (2005). Consideraciones generales sobre el perfeccionamiento musical. [General considerations on musical improvement.] *Quodlibet*, *32*, 22-48.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale: NJ: Erlbaum (2nd ed.).
- Dahl, S. & Friberg, A. (2007). Visual perception of expressiveness in musicians' body movements. *Music Perception*, 24, 433–454. https://doi.org/10.1525/mp.2007.24.5.433.
- De Vellis, R. (2003). Scale development: theory and applications: theory and application. Thousand Oaks, CA: Sage.
- Doğantan-Dack, M. (2014). Philosophical reflections on expressive music performance. In D. Fabian, R. Timmers & E. Schubert. (Eds.) *Expressiveness in music performance*. *Empirical approaches across styles and cultures (pp. 3-21)*. Oxford: Oxford University Press.
- Fang, Z. (1996). A review of research on teacher beliefs and practices. *Educational Research*, 38, 47-65. https://doi.org/10.1080/0013188960380104.
- Gabrielsson, A. & Juslin, P.N. (2003). Emotional expression in music. In R.J. Davidson, H. H. Goldsmith & K. R. Scherer (Eds.), *Handbook of affective sciences (pp. 503-534)*. New York: Oxford University Press.
- Garnett, J. (2013). Beyond a constructivist curriculum: a critique of competing paradigms in music education. *British Journal of Music Education*, 30, 161-175. https://doi.org/10.1017/S0265051712000575.
- González Rollo, A. & Bautista, A. (2018). Ideas de los profesores de instrumento en conservatorios sobre cómo calificar: aspectos objetivos y subjetivos de la interpretación musical. [Ideas of conservatory instrument teachers on how to grade: objective and subjective aspects of musical peformance.] *Publicaciones*, 48, 127-148. https://doi.org/10.30827/publicaciones.v4812.8337.

- Hallam, S. (2010). Music education. The role of affect. In P. N. Juslin & J. A. Sloboda (Eds),Handbook of Music and Emotion: Theory, Research, Applications (pp. 791-817).Oxford: Oxford University Press.
- Haston, W. (2007). Teacher modeling as an effective teaching strategy. *Music Educators Journal*, *93*, 26-30. https://doi.org/10.1177/002743210709300414.
- Hughes, R. & Huby, M. (2004). The construction and interpretation of vignettes in social research. *Social Work and Social Sciences Review*, 11, 36-51. https://doi.org/10.1921/17466105.11.1.36.
- Juslin, P.N., Karlsson, J., Lindström, E.F., Friberg, A., & Schoonderwaldt, E. (2006). Play it again with feeling: Computer feedback in musical communication of emotions. *Journal of Experimental Psychology: Applied*, 12, 79-95. https://doi.org/10.1037/1076-898X.12.2.79.
- Juslin, P.N. & Persson, R.S. (2002). The science and psychology of music performance: Creative strategies for teaching and learning. In R. Parncutt & G.E. McPherson (Eds.), *Emotional communication (pp. 219-236)*. New York: Oxford University Press.
- Karlsson, J. & Juslin, P.N. (2008). Musical expression: An observational study of instrumental teaching. *Psychology of Music*, 36, 309-334. https://doi.org/10.1177/0305735607086040.
- Lance, C.E., Butts, M.M., & Michels, L.C. (2006). The Sources of Four Commonly Reported Cutoff Criteria: What Did They Really Say? *Organizational Research Methods*, *9*, 202–20. https://doi.org/10.1177/1094428105284919.
- López-Iñiguez, G., Pozo J., & de Dios M.J. (2014). The older, the wiser? Profiles of string instrument teachers with different experience according to their conceptions of teaching, learning, and evaluation. *Psychology of Music*, 41, 1-20. https://doi.org/10.1177/0305735612463772.
- MacCallum, R.C., Widaman, K.F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological Methods*, *4*, 84–99. https://doi.org/10.1037/1082-989X.4.1.84.

- Marchand, D.J. (1975). A study of two approaches to developing expressive performance. *Journal of Research in Music Education*, 23, 14-22. https://doi.org/10.2307/3345199.
- Massie-Laberge, C., Cosette, I., & Wanderley, M.M. (2019). Kinematic Analysis of Pianists' Expressive Performances of Romantic Excerpts: Applications for Enhanced Pedagogical Approaches. *Frontiers in Psychology*, 9:2725. https://doi.org/10.3389/fpsyg.2018.02725.
- Meissner, H. (2017). Instrumental teachers' instructional strategies for facilitating children's learning of expressive music performance: An exploratory study. *International Journal of Music Education*, *35*, 118-135. https://doi.org/10.1177/0255761416643850.
- Meissner, H. & Timmers, R. (2019). Teaching young musicians expressive performance: An experimental study. *Music Education Research.*, 21, 20-39. https://doi.org/10.1080/14613808.2018.1465031.
- Meissner, H. & Timmers, R. (2020). Young musicians' learning of expressive performance: the importance of dialogic teaching and modeling. *Frontiers in Education*, *5:11*. https://doi.org/10.3389/feduc.2020.00011.
- Pozo, J.I., Torrado, J.A., & Pérez-Echevarría, M.P. (2019). Aprendiendo a interpretar música por medio del Smartphone: la explicitación y reconstrucción de las representaciones encarnadas. [Learning to perform music using a smartphone: reconstruction of representations and making them explicit.] *Cuadernos del Centro de Estudios en Diseño y Comunicación. Ensayos*, 89, 237-260. Paper retrieved on 20 March 2020 from: http://fido.palermo.edu/servicios_dyc/publicacionesdc/archivos/783_libro.pdf.
- Sánchez, G. & López, M. (2019). Análisis de los contenidos de expresión corporal impartidos en la formación inicial de los docentes de primaria. [Analysis of body expression content as taught in initial primary school teacher training.] *Educación XXI*, 22, 425-447. https://doi.org/10.5944/educXX1.20058.
- Sloboda, J.A., Gayford, C., & Minassian, C. (2003). Assisting advanced musicians to enhance their expressivity: An intervention study. Communication presented at the Fifth Triennial Conference of the European Society for the Cognitive Sciences of Music, Hannover, September.

- Torrado, J.A. & Pozo, J.I. (2008). Metas y estrategias para una práctica constructiva en la enseñanza de la música. [Goals and strategies for constructive practice in music teaching.] *Cultura y Educación*, 20, 35-48. https://doi.org/10.1174/113564008783781468.
- Viellard, S., Roy, M., & Peretz, I. (2012). Expressiveness in musical emotions. *Psychological Research*, 76, 641-653. https://doi.org/10.100s0042601103614.
- Williamon, A. (2014). Implications for education. In D. Fabian, R. Timmers & E. Schubert, Expressiveness in music performance. Empirical approaches across styles and cultures (pp.348-352). Oxford: Oxford University Press.
- Woody, R. H. (2006). The effect of various instructional conditions on expressive music performance. *Journal of Research and Music Education*, *54*, 21-36. https://doi.org/10.1177/002242940605400103.
- Young, V., Burwell, K., & Pickup, D. (2003). Areas of study and teaching strategies in instrumental teaching: A case study research project. *Music Education Research*, *5*, 139-155. https://doi.org/10.1080/1461380032000085522.

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