

# Instrumentalist Teacher Training: Fostering the Change Towards Student-Centered Practices in the Twenty-First Century



Amalia Casas-Mas  and Guadalupe López-Íñiguez 

## 1 Introduction

1 Extensive research and policy work in recent times has advocated for a transformative  
2 approach to both initial (e.g., OECD, 2019a) and continuing professional develop-  
3 ment of teachers (e.g., Kennedy, 2005; OECD, 2019b). For instance, in their report  
4 on improving initial teacher preparation systems carried out in several countries, the  
5 OECD (2019a) acknowledged the need to equip teachers with “updated knowledge  
6 and competences [...] ensuring a comprehensive, coherent, relevant and continuously  
7 updated initial education [...] involv[ing] research-based reflections on teaching and  
8 learning [...] [with]in a continuous professional learning culture” (p. 12). To achieve  
9 this, the OECD (2019a) suggested building on good practices—an aspect related to  
10 effective mentoring understood in the same report as “not (being) yet robust enough”  
11 (ibid). Across the pages of this book, we have pointed out a similar need for modi-  
12 fying, expanding and improving teacher training in Western-based music education  
13 contexts.

14 In Chapter “[Learning and Teaching Music in the Twenty-First Century](#)” we  
15 acknowledged the performing career uncertainties of graduated instrumentalists (e.g.,  
16 Bartleet et al., 2012; Bennett, 2014; López-Íñiguez & Bennett, 2020), and how a great  
17 majority of them would engage in teaching as their main profession within music, for  
18 which motivational and empowering pedagogical formation should be offered. We  
19 expanded this by critically assessing the teaching–learning issues that derive from

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A. Casas-Mas (✉)

Faculty of Education, Universidad Complutense de Madrid, Madrid, Spain  
e-mail: [amacasas@ucm.es](mailto:amacasas@ucm.es)

G. López-Íñiguez

Sibelius Academy, University of the Arts Helsinki, Helsinki, Finland  
e-mail: [guadalupe.lopez.iniguez@uniarts.fi](mailto:guadalupe.lopez.iniguez@uniarts.fi)

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the specific music education culture based on the traditional, centuries-old *conservatory model* widespread in the European context (e.g., Burwell, 2005; Ford, 2010; Sarath et al., 2014; Small, 1998; Tregear et al., 2016), but also outside of it, and how these impacted on recent educational reform demands in Europe which advocate for student-centred instructional practices (e.g., AEC, 2010; Cox, 2007; Klemenčič, 2017).

Chapter “[The Psychology of Learning Music](#)” provided insight on the teaching conditions which can help the student to progressively manage their own learning processes, while briefly introducing the idea that the learning that takes place in the music classroom relies largely on what happens elsewhere, such as, for example, during the selection of teachers in entrance examinations. Chapter “[How Teachers and Students Envisage Music Education: Towards Changing Mentalities](#)” focused on describing (from the framework of conceptual change of learning and teaching conceptions; e.g., Pozo, 2014) that, to change our practices, we should be aware of what we actually do as teachers and the conceptions we hold on how learning should be facilitated, contrasting that information with diverse pedagogical models and approaches. For this change to happen, Chapter “[How to Know and Analyse Conceptions on Learning and Teaching](#)” introduced methodological approaches to evaluate our conceptions on learning and teaching instrumental music—only by knowing, rethinking and restructuring our own praxis as teachers (e.g., Schön, 1987; also Martín & Cervi, 2006) can we achieve the desired change towards student-centredness promoted by leading international bodies.

The SAPEA system for analysing what happens in the instrumental music classroom (see Chapter “[SAPEA: A System for the Analysis of Instrumental Learning and Teaching Practices](#)”) was an empirically-based attempt by some of this book’s authors to provide a useful window for innovation, for achieving educational change, and for the promotion of reflection through critical analysis and observations. This system, as well as the entire book, aim at fostering a *comprehensive education* (in line with Bologna’s pursuits; see ESU, 2015) that attends to what is happening at each instructional moment, knowing what to say and knowing what to do (Martín & Cervi, 2006), and always based on the psychological processes that become activated in student-centred learning (see Chapters “[The Psychology of Learning Music](#)”, “[The Impact of Teaching Conceptions and Practices in Early Musical Instrument Learning](#)” and “[Student-Centred Music Education: Some Ideas to Improve Learning and Teaching](#)”). However, apart from taking into consideration those psychological processes and pedagogical models, there are other subtle nuances that can either foster or impede (and even hinder) educational change towards reformist and student-centred teaching and the teacher training behind it. We will attend to those nuances in this chapter by organising our research-based conceptualisations and practical examples in relation to following subsections that we find relevant, based on our experiences as musicians-researchers-teachers and through the feedback generated by our music pedagogy and music psychology performing students across the years: pre-service and in-service education, contemporary educational demands, and the need to connect lifelong learning to the education of instrumental music teachers.

## 2 Pre-Service Education: Initial Teacher Training in Instrumental Music Education

### 2.1 Teacher Certification: Contents, Types of Training, and the Practicum

European legislation indicates that the study of a musical instrument is the “backbone” of music education; it is the subject that will accompany the student throughout all elementary and professional education. The maturing process of musicians is exceptionally long—there are intellectual, artistic and physical aspects of the musician profession that require dedicated practice from an early age (EFMET, 2004). Therefore, the content around which the study of music is organised, from around 8 years of age up to higher education, is the musical instrument. In Spain, for example, where a large part of the research underpinning this book has been undertaken, this did not begin to diversify until well into the twenty-first century, with Royal decree 631/2010 (Ministerio de Educación, 2010). Two advanced level specialties have currently been extended and the main instrument has been re-positioned between other equally necessary areas of knowledge for incorporation into social and working life: Composition, Conducting, Musicology, Pedagogy, Interpretation, Production and Management and Sonology (Consejería de Presidencia de la Comunidad de Madrid, 2011). However, there is no law which guarantees that the student who does not take the Pedagogy speciality in the Bachelor of Music can be professionally dedicated to teaching. An even more thorny issue is that part of the student body who have not completed their Bachelor of Music studies in any instrumental speciality—i.e., they only have the Intermediate or Pre-professional Level certificates—can professionally dedicate themselves to teaching music in centres of extracurricular music teaching (both public and private) without having actually trained as teachers.

This is something that may be observed in other countries inside and outside Europe, where the certification and education of instrument teachers is unregulated and where this in turn contrasts with recent models (not as extensive as we would like) of professional development for in-service music teachers, like that offered in Finland through its single higher music education centre, the Sibelius Academy. Here, instrumentalists from all over the world and representatives of different musical genres and instruments can obtain subject instrumental music teacher non-degree qualifications<sup>1</sup> after completing a master’s degree in the institution by completing, as separate studies, the required studies in the subject to be taught and/or pedagogical studies for subject teachers, with a total of 60 European study credits (ECTS), including 20 ECTS of *practicum*, in the official languages of the country and also in English. This trains them for teaching and is largely based on the pedagogic principles promoted by this book and by other reforming pedagogic trends, with some emphasis on research as a tool for reflection and optimization in lifelong teaching practices. However, in

<sup>1</sup> <https://www.uniarts.fi/en/study-programmes/non-degree-pedagogical-studies-for-teachers-in-the-arts/>.

103 order to avoid comparing or criticizing as the Finnish model is sadly not replicated  
 104 elsewhere, we will focus on examples within Spanish legislation so that the reader  
 105 can reflexively analyse whether they occur similarly in their own particular context  
 106 and what types of learning are fostered in the students.

107 According to Royal Decree 631/2010 (Ministerio de Educación, 2010), the educa-  
 108 tional administrations “will propitiate teacher-training plans according to knowledge  
 109 of the basic principles, structure, organisation, new methodologies and assessment  
 110 and research systems which correspond to the European Higher Education Area”  
 111 (p. 8). However, whatever is specified by law does not necessarily happen in the  
 112 employment sector. In fact, in this sector it is obvious that there is continued belief  
 113 in instrumental “training” being the key element of musical and professional devel-  
 114 opment (Fernández Morante & Casas-Mas, 2019; Gaunt, 2010; Presland, 2005),  
 115 together with underestimation of other skills that have been traditionally ignored in  
 116 the conservatory model (Burwell, 2005; Carey, 2008; Gaunt et al., 2012; Jørgensen,  
 117 2000; López-Íñiguez & Bennett, 2020; Mills, 2002). It seemed that the population  
 118 was gradually coming to terms with the need for knowledge on learning and teaching  
 119 to address the early stages of teaching, including the teenage years. However, profes-  
 120 sionally, as the age of the population to be educated drops, the teachers usually suffer  
 121 from worse employment and salary conditions, and this may sometimes have an effect  
 122 on access of people with fewer qualifications in learning and teaching, and those with  
 123 less experience (see, the example in Table 1).

**Table 1** Case 1: Example of pedagogical knowledge-experience absence in instrumental teachers

Naomi is a magnificent clarinettist who finished pre-professional music training last year. She is deciding whether to dedicate herself to music and enrol in the higher clarinet level, but to finance her studies she has sent her curriculum to several schools of music in her city. She is happy because one of them has called her and is looking for teachers of introductory music and music and movement courses. They have decided to employ her and from now onwards she will give classes to groups of children from four years of age and above. She had taken several separate courses in musical education in some of the highly renowned twentieth century pedagogic trends. Although she is a little afraid, she thinks this will allow her to handle herself in the classroom

The reality is that, one month after beginning the classes, she feels totally overwhelmed by the behaviour of her pupils. At first they appeared to be interested in some of the songs and dances, but they now spend a great deal of the class time running around, fighting or shouting, without paying attention to what she suggests. She talks to her colleague, Mark, about it, who is studying a degree in teaching and begs him for clues on what to do in her class. Mark offers her loads of activities and songs that they are being taught on his course, but says he has never tried them out on any real child because they have not yet begun to give group classes. He gives a few instrument classes and sits on a chair and individually explains to his pupils how to play the songs and how to start to read the scores

The activities shared by her colleague help his friend for a few days, but some work and others don't, as if that were an internal property of each activity, and even the same activity that worked once, does not work two classes later, as the students have tired of it and do not want to do it again. She does not really know why this happens nor what to do

Source Own elaboration

124 In case 1 which we have just presented here, Naomi lacks pedagogical knowledge  
125 and experience in the situation she is placed in and this has major repercussions  
126 because the raw material is childhood. We find ourselves faced with the recurrent  
127 problem that knowing how to play a musical instrument does not mean that a person  
128 knows how to manage learning processes in other human beings, and even less that  
129 they can adapt to very different age ranges (e.g., Burwell, 2005). Our protagonist,  
130 who is still a student herself, therefore has to go to a colleague who has specialised in  
131 teaching, to ask for help in her new professional occupation. Knowledge on learning  
132 and teaching began to be offered to instrument degree students during the first  
133 decade of the twenty-first century in Spain, but the curricular modifications finally  
134 made during the second decade meant these areas of knowledge were exclusive to  
135 the teaching degree studies governed by Royal Decree 1614/2009 (Ministerio de  
136 Educación, 2009) which was specified in the Decrees of each autonomous region a  
137 couple of years later. The idea was thus reaffirmed that the instrument students are  
138 essentially trained as interpreters and do not require this type of knowledge for what  
139 will probably be their future employment—teaching. It is as if becoming a teacher  
140 were a sudden about-turn at the end of their studies (Burwell, 2012; McPhail, 2010;  
141 Persson, 1994).

142 In this section we again need to refer to the *practicum*, since the lack of it, or  
143 short duration and type of activities pursued in teacher training, largely explain the  
144 problems faced by our protagonist in the example given in Table 1. For instance,  
145 we know that the years of educational theory have little or no affect on teaching  
146 practices in terms of student learning (Desimone & Garet, 2015), as we shall see in the  
147 second case (Table 3), and they should therefore be accompanied by real experiences  
148 with real students. To do this, emphasis must be placed on frequent and lasting  
149 opportunities of *practicum*. Notwithstanding, duration is not really a guarantee either.  
150 There could be cases of *practicum* which, with luck, would start in the last years of  
151 the professional level or the first year of the higher level and be on a par with learning  
152 in pedagogy and educational psychology, and yet would not manage to transform  
153 conceptions of the students on learning and teaching music (see Chapters “How  
154 Teachers and Students Envisage Music Education: Towards Changing Mentalities”  
155 through “SAPEA: A System for the Analysis of Instrumental Learning and Teaching  
156 Practices” of this book), because the activities undertaken: (a) either do not stimulate  
157 analyses and reflection on the actual practice (Chapters “How to Know and Analyse  
158 Conceptions on Learning and Teaching” and “SAPEA: A System for the Analysis  
159 of Instrumental Learning and Teaching Practices”), (b) or lead to poor supervision  
160 by teaching staff who do not teacher educational psychology, (c) or the centres  
161 where these internships are carried out are not representative of innovative practices.  
162 Furthermore, we consider that the *practicum* should be organised according to the  
163 elements we will present overleaf and that, to a large extent, they can be worked on  
164 from the principles which we will include later on in the subsection on collaboration  
165 and cooperation among pre- and in-service teachers.

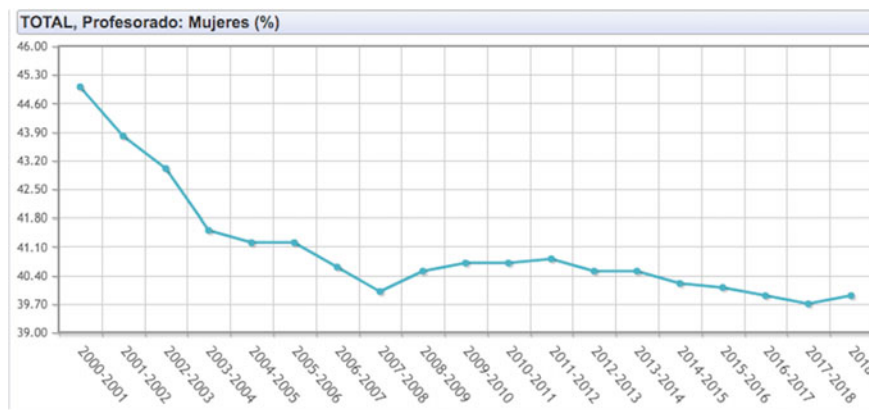
## 2.2 The Gender Gap in Connection to Working Conditions and Educational Levels as Relevant to Pre-service Training

As the age of the children to be educated drops, salary conditions of the teachers also usually drop, whereas the representation of female educational professionals rise (e.g., de Boise, 2018). This is a reflection that, although in the explicit legal area it may be believed that in certain countries equality between the sexes has been achieved, reality continues to showcase the inequality implicit in employment distribution. In the education sector this inequality is extremely obvious, and several authors such as Ballarín (2008) and Jones et al. (2019), have coined the term *smokescreen*: due to the majority participation of women in the education systems, which, as a mean in the 27 countries of the European Union (EUROSTAT, 2020<sup>2</sup>), does not drop below 95% and produces a perceptive effect that may prevent us from visualizing the discrimination and inequality situations from which women suffer.

The drop increases in female classroom teachers and academic staff as the academic level rises in musical studies in Spain. Specifically of the 100,606 people enrolled in formal music teaching during the 2018/2019 year, at Elementary Level 56.3% were women, whilst there is a progressive loss of them through the Professional level up to the Higher Level (or Degree Level) where they account for 41.2% (Ministerio de Cultura y Deporte, 2020). Of the same cohort who enrolled for the Bachelor degree now, when they began Elementary Level, 10 years previously, 54.6% were women (Ministerio de Cultura y Deporte, 2009). In other universities degrees, the mean percentage of females enrolled is 60.8%, although for sound and image engineering degrees (26.6%) and development of videogames (11.8%) a lower percentage of women continue to enrol.

When we get to the teaching staff of formal music teaching in Spain, only 39.9% are women and as we see in Fig. 1, there has been a drop in the contraction of teachers during the last two decades. This problem is not unique to Spain, since in-depth studies such as those by Green (e.g., 1997) in the UK have notably reflected on the inequalities, from the moment of choosing the musical instrument, to the inequalities of participation in certain specialties such as composition and improvisation, or in certain musical genres. Other factors, such as maternity and social class, are related to inequality in the creative media industries and reflections from the different countries in this respect should form part of initial training if we wish to see the process transformed.

<sup>2</sup> Eurostat Database (period between 2013 and 2020), online data code: EDUC\_UOE\_PERD03. [https://ec.europa.eu/eurostat/databrowser/view/educ\\_uoe\\_perd03/default/bar?lang=en](https://ec.europa.eu/eurostat/databrowser/view/educ_uoe_perd03/default/bar?lang=en).



**Fig. 1** Evolution during two decades of female teachers of formal music teaching in Spain (total percentage shown on the left axe). *Source* Ministry of Education and Vocational Training in Spain, MEFP, Spanish National Statistics Institute (2020)

### 201 2.3 Control of Knowledge and Watertight Education

202 Debates on the curriculum are a reflection of different forms of conceiving society and  
 203 its future (Young, 1998). In the end, both the explicit and hidden curriculum reflect  
 204 the values, history, social divisions and dominant interests of modern society and  
 205 in the classroom privileged spaces are generated for building up our interpretations  
 206 about reality with the students (Torres-Santomé, 2019). It is only certain people who  
 207 decide on subject contents, classroom activities, assessment models and interactions  
 208 between the students and with the teacher, which, in the education system, reflect  
 209 ways of ignoring less affluent collectives. The context helps to construct a common  
 210 feeling which overlooks certain unjust realities, and serves to justify what cultural  
 211 contents the dominant groups select and impose as academic material. Thus, in  
 212 instrument degrees contents which would nurture reflection on reality—for example  
 213 anthropologically, sociologically, socio-historically, psychologically, economically,  
 214 etc.—are marginalized (if not totally excluded) in favour of more technical types of  
 215 knowledge which do not require rethinking the essential foundations of application.  
 216 This is of greater importance for future teachers whose academic studies have become  
 217 branded as “elitist” (Cavicchi, 2009; Richardson, 2007), for their forms of entry  
 218 (Abramo & Bernard, 2020) and even for a lack of questioning the actual notion and  
 219 genre of music which is predominantly taught in the conservatories. This has lead  
 220 to studies being related to the violence of musical symbols in the classical tradition  
 221 (Powell et al., 2017) or the colonialism of musical education.<sup>3</sup>

<sup>3</sup> See, e.g., the special issue “Towards a decolonial music education in and from Latin America” edited by Favio Shifres and Guillermo Rosabal-Coto in ISME’s *Revista Internacional de Educación Musical* (Shifres & Rosabal-Coto, 2017).

222 If the students exposed to the system are without stimulation from the teaching  
 223 staff to reflect, they have no other option than to accept the meanings facilitated by  
 224 the teachers, who are in the position of power. Knowledge and control are thereby  
 225 interlinked (Brown, Lauder, & Sung, 2015; Young, 1998); on the one hand, in the  
 226 *content* of the knowledge—what is studied—, and on the other, in the *stratification*  
 227 of the knowledge which promotes the typical classification between ‘high status’  
 228 and ‘low status’ knowledge in the curriculum. Reflection of the prevailing cultural  
 229 conceptions, as shown in a recent study by several of this book’s authors on the use  
 230 of ICT in relation to teachers’ conceptions of instrumental music learning during  
 231 the Covid-19 pandemic lockdown in Spain (Pozo et al., 2022), indicate that the  
 232 highest status is usually held by knowledge which is verbal, abstract, individually  
 233 acquired and assessed, unconnected to everyday life, and written. Meanwhile, prac-  
 234 tical, concrete knowledge, acquired by a group of individuals and assessed in group  
 235 terms, connected to everyday life, and from oral transmission, remains inferior and is  
 236 usually excluded. The relationships or barriers between areas of knowledge are also  
 237 a reflection of power and may be located in a continuum between being conceived at  
 238 one pole in isolation, or totally interconnected at another. However, the latter option  
 239 is not the most extensive within the context of Western societies. How is it possible  
 240 not to facilitate that opportunity for reflection on the construction of knowledge for  
 241 teachers in development? Is it possible that once they are thrown into the music educa-  
 242 tion working world they no longer need to revisit these reflections over the course  
 243 of their professional development? Are society, students, music, musical genres, and  
 244 access to information static elements or are they constantly and rapidly evolving?  
 245 The exclusion or non exclusion of certain areas of knowledge for teacher profes-  
 246 sional development, leading to reflection on them or otherwise, and facilitating their  
 247 connection between both areas and everyday life, is not a trivial issue. It is a form of  
 248 control over the students they will train for the future.

### 249 3 In-Service Education: Continuous Professional Training 250 for Instrumental Music Teachers

251 The conceptions sustaining the separation between theory and practice and the priori-  
 252 tisation of the former is not exclusive to music studies, but in performing arts subjects  
 253 it is of greater relevance for being the antithesis of its own embodied essence. The  
 254 professional education of music teachers appears to require doubly practical work:  
 255 the teaching work and the musical work. However, does the quantity of practical  
 256 training guarantee teaching efficacy? Is any type of practice valid for good educa-  
 257 tion? What do we understand by good, effective instrument teacher professional  
 258 education? The fact is that the type of musical practice—understood as eminently  
 259 procedural activity—has already been questioned for decades (e.g., Jørgensen &  
 260 Lehmann, 1997). This is such that if the quality but not the quantity of my practice  
 261 is not good, regardless of how many hours I dedicate to the instrument, I will not

262 easily be able to perform the music on stage with creditworthiness. Here what we  
 263 are questioning, in extrapolating from instrumental education to instrument teacher  
 264 education, is whether the pre-service teaching preparation really shapes the *practice*  
 265 the teacher will later develop (see, the example in Table 2).

266 There are several circumstances to case two of Table 2. The first is that of an experi-  
 267 enced teacher with a series of routines, acquired over time, which have worked or  
 268 have not—although he has not contrasted this fact either—, especially because if a  
 269 student drops out he attributes this to (1) s/he was not prepared to take these studies;  
 270 prior preparation or quantity of practice or (2) s/he did not have the necessary condi-  
 271 tions required for the instrument. Music studies should pay particularly attention to  
 272 the high rate of student drop-out from elementary to advanced level. The tradition  
 273 of “excellence” studies mean that research has paid more attention to successful  
 274 than to drop-out cases. It is only very recently that follow-up of these drop-out  
 275 cases has begun, by analyzing the contextual and family issues, age at the start of  
 276 studies, initial motivation of students, amount of practice, etc., which could have an

**Table 2** Case 2: Example of clash between theory and practice in instrumental teachers

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Oliver is a cello teacher and head of the string instrument department. He meticulously prepares his students’ classes. He has over twenty five years of experience and in each year he uses a grid notebook, where he jots down what he has worked on with each student and what he has established with that student for them to practise for the following session. This academic year he also has to supervise a new teacher, Nicolás, who is a probationary official at the conservatory. This is an additional activity for Oliver because he has to train the new teacher in everything regarding the centre documents, teaching programme, tutoring, and centre organisation. Among other functions he has to visit Nicolás’ session at least twice a month and observe his work with the students, and provide guidance

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Nicolás has begun his student classes with great enthusiasm and a desire to innovate. He is pure energy. He has asked them to keep notebooks of their own for daily learning and has wanted them to open a collaborative forum with one another to clarify doubts. When he took some of the optional subjects of basic principles of learning and teaching during the final years of his degree, he adopted ideas with which he himself would have liked to have learned when he was little, but which were not yet available at that time

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In his role as supervisor, Oliver tells Nicolás he should prepare his sessions better because they are too broken up, with Nicolás wanting to address a lot of elements and wasting a lot of time making his students reflect, by asking them questions and having a group class. The result is that they have hardly advanced in the instrument during the two months he has been working with them. He has to be more direct in his objectives and instructions to attain the standards imposed by the curriculum, bearing in mind the few teaching hours available to him to prepare the required repertoire for each year

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Nicolás’s students seem to be very happy at first, although Oliver does not appreciate any great advances being made, but at the Christmas auditions these students are noticeably at a disadvantage to those of other teachers. Their marks are lower than those of their peers and parents and teachers begin to compare with one another, which evokes external pressure, leading to a point of no return. In the end Nicolás stops dedicating class time to help students learn to manage their own learning and keep their own diaries, and ends up fixing the objectives and timing to coincide with adaptation to his environment

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Source Own elaboration

277 impact (e.g., Gerelus et al., 2020). However, there is less questioning of conceptions  
 278 and teacher practice, of the counseling sessions, and professional educational guid-  
 279 ance as possible accountables behind the fact. In short, the confrontation of these  
 280 two teaching practices shown in our second case are examples of knowledge and  
 281 educational-psychological actions that the institution should follow up on in-service  
 282 training.

283 Educational Policy and educational administrations in Spain, like many countries  
 284 these days, insist on making teacher training plans at the proposal of the institu-  
 285 tions, for the updating and intensification of music disciplines in their different areas  
 286 (Ministerio de Educación, 2010). However, these plans remain just good intentions  
 287 which are rarely converted into the genuine modernization of teaching staff. In our  
 288 case we found there was a clash between two points of view. On the one hand, the  
 289 novel teacher's attempts to make their students reflect on how they conceive of the  
 290 music they wish to make and how they could achieve it and therefore learn, and on  
 291 the other the way the experienced teacher questioned this, and where priority was  
 292 attached to the prescribed teaching or didactic repertoire, external to the students. The  
 293 proposal of the young teacher is called a student-centred approach (Kember, 2009),  
 294 which fosters different skills (autonomy, collaboration, critical thinking, etc.) versus a  
 295 teacher-centred approach aimed at information presented by teachers, predominantly  
 296 verbally even in the instrument classes.

### 297 **3.1 Class Preparation as Innovation**

298 Recent studies with teachers from different countries appear to reaffirm the idea that  
 299 when teachers of instruments explain their type of teaching they allude to former  
 300 pedagogues, resulting in a cycle that is neither questioned nor intensely repurposed,  
 301 but which is self-perpetuating from inertia (Daniel & Parkes, 2017). This is the  
 302 master-apprentice tradition, the emotional ties of which are strengthened through the  
 303 one-to-one lessons (e.g., Gaunt, López-Íñiguez & Creech, 2021). This provokes an  
 304 inertia strongly rooted in the transmission of information in instrumental education  
 305 in academic areas. There is no questioning of whether the focus is centred on the  
 306 student and her/his processes, such as selection of the repertoire and the search for  
 307 information, its organisation and its creation. The only way of breaking these self-  
 308 multiplying structures is with in-service training, where spaces exist for individual  
 309 and collective review analysed in such a way that, like with the students, no errors  
 310 are penalised. Situations exist that are not optimal but serve as points of reflection  
 311 and improvement.

312 Lack of class preparation forms part of this tradition of information transmission in  
 313 one-to-one lesson, the teaching staff usually giving their opinion about the musical  
 314 interpretation of the student and correcting them more or less minutely over any  
 315 technical or interpretative element, as if the actual activity would be transformed  
 316 into content (Daniel & Parkes, 2017). Another exhaustive class preparation option  
 317 has been to question the previous model, stamping instrumental teaching with a

318 questionable pedagogic tone that remains anchored in the preparation of content  
 319 instead of reflection on processes. In other words, they continue promoting a teacher-  
 320 centred learning, which is actually content-centred, instead of evolving towards the  
 321 preparation of sessions by reviewing the actual classroom recordings or organising  
 322 the ideas which the students can reflect upon and produce, helping them to rethink  
 323 their objectives. These processes can become genuine innovation projects if rigorous  
 324 follow-up ensues, if they are appropriately documented and the opportunity is given to  
 325 contrast them in teaching teams. This proposal is not reflected in the many courses that  
 326 serve for accreditation and promotion of in-service teachers, who from the content-  
 327 centred focus continue providing questionable new information in this crucial aspect  
 328 and try to disguise it with technological novelties.

### 329 **3.2 Selection Process for Instrumental Music Teachers**

330 Teacher selection continues to this day with the strong tradition that high-level  
 331 performers must be recruited to teach, despite having no formation on pedagogy  
 332 (Burwell, 2005; Daniel & Parkes, 2017). We have observed this in the priority of  
 333 entry examination in several countries, where the first stage of entry exams continues  
 334 to select performing excellence. The performing selection carries with it many other  
 335 implicit selections, since in the areas of artistic life of a specific place the people  
 336 tend to know one another previously and as specialists in their instruments detect the  
 337 “school” of other performers. Also, developing social media to amplify each perform-  
 338 ance and promote the idea of being highly sought after on the stage, is another  
 339 element which could lead to bias of those who have to assess competence, beyond  
 340 that of the performer or community manager, actually as a teacher.

341 The second phase usually refers to the selection of teaching staff according to  
 342 pedagogic aptitude but in a grotesque manner, since it proposes that the candidates  
 343 come up with planning, often annually, and then with specifications of more limited  
 344 time periods, but to work with a hypothetical student body with supposed difficul-  
 345 ties and without knowing what their baggage, or context or learning is. Therefore,  
 346 this type of planning or programming is still centred on the content to be taught,  
 347 ignoring the appropriate strategies of each specific situation, with repercussions on  
 348 ethereal methodologies and procedures for assessment which are not in keeping  
 349 with demands (Encarnacao & Blom, 2020), or which only centre on content. The  
 350 criteria could centre more on assessing the development of intrinsic motivation of  
 351 the aspirant through individual interviews and also group interviews to find out their  
 352 communicable ability and adaptation to collective work, their emotional manage-  
 353 ment of difficulties, preparation of reports about reflections on their teaching and  
 354 hereafter intentions, the witness accounts of family members, students and teaching  
 355 staff with whom they have worked.

356 Finally, there is an overriding need to take action on equality and diversity policies  
 357 as endorsement of the representation of certain under-represented collectives, due to  
 358 the cultural distortion in teaching selection. This is the case of women, as described

359 above, and also ethnic minority communities, particularly in tertiary level teaching  
 360 (e.g., Darling-Hammond et al., 2020). In sum, the models to promote children’s  
 361 and students’ well-being, healthy development, and transferable learning need to be  
 362 highlighted.

### 363 **3.3 The Role of years of Teaching Experience as a Relevant** 364 **Factor in Understanding Teachers’ Praxis**

365 As we saw in Chapter “[The Impact of Teaching Conceptions and Practices in Early](#)  
 366 [Musical Instrument Learning](#)”, it seems that there are both generational differences  
 367 between music teachers and those relating to experience and professional education.  
 368 These largely determine what they do in class with their students: what contents  
 369 and learning processes they encourage and how they assess what has been learned.  
 370 These practices would be determined to a great extent by the conceptions or ideas  
 371 of these teachers on learning and teaching and which are described in detail in the  
 372 chapters of Part One of this book. Research conducted by some of authors of this book  
 373 indicate that the most constructive conceptions centred on promoting metacognition  
 374 and autonomy in the students are apparent in new teachers, whilst teachers with  
 375 more years of experience tend to simplify their ideas towards more traditional stances  
 376 (e.g., López-Íñiguez et al., 2014). Furthermore, advanced level teachers usually offer  
 377 their students more space for developing autonomous practices and for taking on  
 378 responsibilities for their own learning, whilst in initial stages the teachers exercise  
 379 greater control over their students, represented by a more traditional profile regarding  
 380 the power hierarchy of the conservatory model.

381 It is important to keep this aspect in mind when educating new teachers, but even  
 382 more so with in-service teachers, since it is this group that seems to need incentives  
 383 in psycho-educational updating and to reflect on the activation of automatic ideas.  
 384 This may be due to the inertia of the conservatory culture and curricular demands (as  
 385 occurred in the example in Table 3), to lack of education in constructivist and updated  
 386 pedagogic principles, or to burnout from a profession (e.g., McPherson & Welch,  
 387 2018) which is highly gratifying in itself, but which demands great preparation and  
 388 dedication with a salary that is substantially lower than that of elite footballers or  
 389 corporate lawyers, to mention just a couple. Part of this reflection for promoting  
 390 change in conceptions and practises of teachers may consist in attending courses  
 391 where innovative strategies based on recent research on effective student-centredness  
 392 are promoted (López-Íñiguez et al., 2014; Torrado & Pozo, 2006). They may also  
 393 include aspects such as recording classes, as we shall see later on in this chapter, and  
 394 also group reflection with other teachers of diverse levels and experiences, depending  
 395 on the models we will see in the following section. As a result, they will be exposed  
 396 to varied ideas and practices, since the teachers with the greatest experience may

397 simplify their ideas, but usually have more pedagogic strategies than new teachers,  
398 due to their years of experience (see Chapters “[How Teachers and Students Envisage](#)  
399 [Music Education: Towards Changing Mentalities](#)” through “[SAPEA: A System for](#)  
400 [the Analysis of Instrumental Learning and Teaching Practices](#)” and 9”).

#### 401 **4 Preparedness for Contemporary Teaching Demands**

402 As we have been describing throughout the chapter, the restructuring of traditional,  
403 teacher- and content-centred practices is a huge challenge for teachers. One of the  
404 ways in which we could promote that change towards practices which help the student  
405 to progressively manage their own learning for artistic agency and autonomy, is to  
406 foster reflexive actions that support experiential learning to reconstruct individual  
407 conceptions from their uses in practice. Also, analysis of *critical incidents* over  
408 the course of our learning pathways as instrumentalists and during our teaching  
409 career may help us to realise which models we were exposed to in our trajectory  
410 as students (López-Íñiguez & Burnard, 2021)—and which we would, for better or  
411 worse, reproduce in our practices without noticing, unless we made an in-depth  
412 review of these events.

413 In conservatories and schools of music we insisted on the need for formal psycho-  
414 educational learning of students from the last years of Intermediate or Professional  
415 level. We also believe it would be positive to establish interdisciplinary collabora-  
416 tions with external agents in the community in order to develop intrinsic motivation  
417 and future employment. Firstly, with regard to professional guidance, it is interesting  
418 to be in contact with other educational institutions, orchestras, professional associ-  
419 ations, producers, editing bodies, to ensure that students and teachers are aware of  
420 the competences required by society and the employment market (Ponce de León &  
421 Lago, 2009). Secondly, it is also interesting to detect areas of possible intervention  
422 through music. Thus, the institutions should start up *Service-Learning* programmes  
423 or community immersion programmes where not only is contact made according to  
424 the demands of the employment market but where the real needs of people within  
425 a community are visible and it is possible to empathise and create alternatives as  
426 well. Forrester (2019) analyses how to combine learning objectives with commu-  
427 nity service in order to provide a pragmatic, progressive learning experience while  
428 meeting societal needs. Provided that this does not include jobs that should be remu-  
429 nated for being structural, but which are disguised as forced “voluntary” actions  
430 to gain certain accreditation.

**Table 3** Case 3: Example of good practice. Activation of self-assessment and cooperative practice

Carmen has been a trumpet teacher for 15 years in a conservatory of intermediate level studies. For the last three years she has been developing an interdepartmental project so that the students of different instruments will work more together, and with the environment. She and her teaching team decided to put the plan into effect in different stages: first they began analysing what the student interests and concerns were by means of a short questionnaire. From this initial analysis two students of trumpet and percussion, Isabel and Nuria respectively, were outstanding for their huge motivation and experience in carrying out cooperative activities at their schools, which are located near the conservatory

During the second stage they determined which students were going to participate: either because they were excited by playing with companions from other specialties or because their teachers thought that by participating in the project they would increase their motivation in music, and their skills. As the person in charge of the project, Carmen organised groups of 2 to 5 students each. She organised scheduled meetings in keeping with the student's timetable so that they coincided in two classes per term for each instrument teacher responsible for the student of each group. They then began to select the repertoire and began rehearsals

Carmen thought that these two students could work on coordination with their classmates for an online fortnightly forum of session supervision dealing with doubts, problems that arose, and the search for possible solutions. They also organised quarterly meetings to share music as fun, searching for a common thread to the different pieces and including dramatisation or dance, text, or poetry that was connected. They sent out new questionnaires to the students at the end of the year and the experience was so good that the participants wanted to continue the project the following year and a good number of new students were encouraged to participate. For the following stage they are thinking of opening the doors of the centre to any audience who wishes to watch the performances and to take them to nearby schools, homes for the elderly, etc. where it would be possible to transport basic instrumental material

Source Own elaboration

#### 4.1 *The Importance of Research Skills and Interdisciplinary Awareness in the Professional Education of Music Teachers*

Addressing education is open to many opportunities, either through innovation or research. By educating teachers appropriately, we can achieve a community of knowledge development to describe, understand and maybe sometimes specify what occurs and why in our educational environment. In case three (see, the example in Table 3) that we have just presented, the trumpet teacher, Carmen, is coordinating the introduction of an action-research (Lewin, 1946/1988) in her conservatory with which it would be possible to: (a) describe the needs detected in the classrooms by the teachers, (b) identify several objectives, such as the improvement of student involvement through a more interactive participation between peers, establishing common group objectives, (c) plan different cycles and steps for application, (d) apply the first cycle, (e) establish an assessment process for the first cycle, and (f) carry out the necessary modifications to continue with the application of successive cycles with their corresponding assessments, reviewing the objectives after each assessment.

447 Another descriptive option which has led to considerable contributions to educa-  
448 tion is the *case study* (e.g., Stake, 2005), purposely selected or not, depending on the  
449 circumstances, and from which an in-depth follow-up is made to describe its char-  
450 acteristics and evolution in a report. And of course, from the *ethnography* stemming  
451 partly from the British cultural anthropology and partly from the School of Chicago,  
452 incredibly interesting and useful descriptions of groups who share a culture have  
453 been made and analyses may be made to comprehend the psychosocial and human  
454 cultural processes in a holistic vision (León & Montero, 2015). Ethnography may be  
455 used as a research tool and as a perspective to carry out analysis of educational poli-  
456 cies where the educational anthropologists research the cultural context that involves  
457 groups of people in relation to the changes and resistance to educational policies to  
458 achieve specific goals in their everyday lives (Dixon et al., 2012). Cross-cultural  
459 data has been used from the critical approaches of the U.S.A. to report on the educa-  
460 tional policies of many countries in the world. They have common data collection  
461 techniques, including participant observation, interviews, archive data analyses, oral  
462 histories, and statistical analysis.

463 As we shall see in Chapter “[Student-Centred Music Education: Some Ideas to](#)  
464 [Improve Learning and Teaching](#)” and at the end, one of the most relevant principles  
465 in teacher training is to understand the close connection existing between reflection  
466 on teaching practice regarding not just existing teaching models or psychological  
467 processes to be promoted in our students, but also the research of praxis itself. For  
468 this it is essential to train both pre-service and in-service music teachers. One of the  
469 most effective ways of developing this aspect is for the teachers to read articles and  
470 books on research into education, psychology, the neuroscience of music, and also  
471 material where good practices are described. Beyond this, it is important to train  
472 teachers in basic methods and principles of research so that they can collect data  
473 about what is happening in their own class with their students, and about progress  
474 and challenges which arise, the issues that work and those that do not, and that  
475 they analyse (for example, using the SAPEA system of Chapter “[SAPEA: A System](#)  
476 [for the Analysis of Instrumental Learning and Teaching Practices](#)”) their ideas and  
477 practices, and their students’ responses. Detailed development of the analysis system  
478 makes it greatly applicable to both descriptive studies, like those mentioned above,  
479 and to other ex post facto, quasi-experimental and experimental studies. A very useful  
480 tool for this is the use of video and the collaboration with other teachers and experts  
481 in pedagogy and research, as we shall see in the following section.

## 482 4.2 *The Use of ICT in Teachers’ Professional Development*

483 It has been acknowledged that ICT use in the music classroom offers several benefits.  
484 However, many other research studies have shown that the use of such tools in  
485 instrumental music instruction is not only scarce but that when they are used they  
486 have been incorporated more as a strategy to externally motivate and control the  
487 attention of the students, without essentially changing or improving the pedagogical

488 practices taking place (e.g., Savage, 2010), often consolidating traditional practices  
 489 as we described in the Part One of the book. This non-reflexive use of ICT in music  
 490 classrooms coincides with findings from major international studies on the integration  
 491 of technologies in schools, which demonstrate rather more traditional uses in many  
 492 contexts that do not improve learning results (Biagi & Loi, 2013). In fact, in a  
 493 report which summarises decades of research around PISA studies, it was concluded  
 494 that “the results also show no appreciable improvements in student achievement in  
 495 reading, mathematics or science in the countries that had invested heavily in ICT  
 496 for education” (OECD, 2015, p. 3). So one aspect that should be included in teacher  
 497 training spaces is the utilisation of ICT in ways that promote constructive practices,  
 498 similarly to those described in Chapter “[Learning Music Through ICT](#)”, as we know  
 499 that when ICT is used to facilitate instrumental music learning, it is to promote  
 500 reproductive learning (Pozo et al., submitted).

501 Another technological tool that could be thought of as relevant in the promotion  
 502 of good teaching practices among teachers is the use of videos as reflexive-analytical  
 503 tools for real classroom situations (e.g., Powell, 2016). The use of recordings of  
 504 one’s own practice—both for in-service and pre-service teachers—and, if possible  
 505 using an analysis system like the one presented in Chapter “[SAPEA: A System for  
 506 the Analysis of Instrumental Learning and Teaching Practices](#)”, can support teachers  
 507 in a number of ways. For example, it can help them to analyse which conditions,  
 508 learning processes and outcomes described across this book that they promote in their  
 509 lessons by (1) observing the psychological principles they activate in their students,  
 510 (2) attending to the socio-emotional interactions taking place between the students  
 511 and teachers. But it can also support them in getting to know themselves as teachers  
 512 according to their personality traits, their strengths and weaknesses, and their ability  
 513 to self-critique their practice.

514 Different stances exist today regarding how the virtual world may be totally  
 515 immersive and those who think that virtual venues should still be researched in  
 516 depth. One thing is certain though: a decade ago, we were open to ICT but always  
 517 critical of them (Turkle, 2009), but at the beginning of the second decade of the  
 518 twenty-first century they clearly have a high impact on the configuration of our  
 519 musical and teaching identities. Now we have to respond to questions about how a  
 520 musical identity is created in a virtual world and why teaching music in a virtual  
 521 world may improve our comprehension of musical education (Green, 2011) and its  
 522 underlying conceptions and practices.

### 523 ***4.3 Collaboration and Cooperation Among (Pre- 524 and In-Service) Teachers: Reflective Modelling, 525 Collaborating and Mentoring***

526 As a demonstration of good practice for teaching a concept or an approach to learning,  
 527 through video or in person, modelling is a highly effective technique of vicarious

528 learning in teaching practice. However, we believe it is insufficient for changing the  
 529 conceptions which will finally guide action and to do this modelling needs to be  
 530 seen to be guided and accompanied by profound reflection, of either one's own or  
 531 someone else's practice. In music, as in other areas, teaching cases have been progres-  
 532 sively transformed into video-cases (West, 2013). Now, however, it is not so much  
 533 a case of demonstrating what the "correct" model is, but using it as *bait* to generate  
 534 reflection, through a dilemma, a bad praxis, comparison of different possibilities,  
 535 etc. These situations for inducing reflection and taking debated decisions have the  
 536 advantage of embodying and contextualising the situation. This, in turn, encourages  
 537 visualisation of action and action by whomever is observing and debating. Marchesi  
 538 and Martín (2014) or Schön (1987) attest reflexive learning situations for teacher  
 539 training. Also, if these practices are carried out with colleagues and experts in educa-  
 540 tional psychology, they generate a collaborative space for reciprocal observation and  
 541 accompaniment for the development of teaching strategies. The SAPEA analysis  
 542 system (Chapter "SAPEA: A System for the Analysis of Instrumental Learning and  
 543 Teaching Practices") was developed for working from this outlook of collaborative  
 544 and reflexive action.

545 Finally, in the last few years the figure of the mentor as a guide to reflection on  
 546 teacher training practice has been much increased. Berg and Rickels (2018) define  
 547 this as a role of accompaniment to the novel teacher, for activities including curricular  
 548 design, research, collaboration with other colleagues, administration and manage-  
 549 ment, and professional development. Abramo and Campbell (2019) argue that to  
 550 generate mentoring for the cooperating teachers, three dialectic dimensions must  
 551 be negotiated: reflecting versus modelling; emergence versus purposefulness; and  
 552 learning to teach in specific contexts versus preparation that transfers to teaching  
 553 music in all settings. This links up to what we commented upon in the section on  
 554 Class preparation, since the authors advocated that cooperating teachers support  
 555 novice teachers' educational growth, in a framework construction of flexible action  
 556 adapted to the situation rather than the transmission of closed solutions applicable  
 557 to all educational situations. There is urgent need for mentoring in conservatories  
 558 and schools of music and this may be coordinated from the recently created Depart-  
 559 ments of Educational Guidance in Spain, but requires the effort of also supporting  
 560 the mentors (Berg & Rickels, 2018 ; Weimer, 2020) and even taking advantage of  
 561 the potential of appropriately trained retired teachers (Berg & Conway, 2020).

## 562 **5 Summary of the Chapter in Connection to Lifelong** 563 **Learning**

564 In this chapter, we have discussed issues that are relevant to instrumental music pre-  
 565 service and in-service teachers, such as the gender gap and working conditions; the  
 566 need for teachers to strengthen their teaching strategies and skills; the importance of  
 567 offering official certification in Higher Education; the importance of reflexion on their

568 teaching practices; the types of support and tools available for their development as  
 569 educators (such as the SAPEA system introduced in Chapter “SAPEA: A System for  
 570 the Analysis of Instrumental Learning and Teaching Practices”); the contemporary  
 571 demands in terms of new awareness that are demanded by our society, and the  
 572 systems of access (or lack thereof) to the profession. This has helped us to build  
 573 a holistic understanding of the instrumental music teaching profession in current  
 574 times, and also to acknowledge that the pedagogies underpinning student-centredness  
 575 in instrumental music learning are lacking to a great extent, as we have also been  
 576 discussing in the entire book. We have argued here that one of the main reasons for this  
 577 problem is the lack of adequate teacher training and good mentoring opportunities  
 578 offered to instrumentalists who will—like it or not—need to engage in teaching as a  
 579 profession (OECD, 2019a; in music, e.g., López-Íñiguez & Bennett, 2020).

580 Following this spirit of the importance of continuous, high quality teacher training  
 581 development opportunities, the UNESCO’s Faure Report (Faure et al., 1972) popu-  
 582 larised already five decades ago the concept of *lifelong education*, which was later  
 583 on further developed in the Delors Report (Delors et al., 1996), which put forward an  
 584 important vision for *lifelong learning* that still stands today in the light of the research  
 585 presented across this chapter. Lifelong learning is an aspect that will be discussed  
 586 further in the chapter that follows (Chapter “Student-Centred Music Education: Some  
 587 Ideas to Improve Learning and Teaching”), particularly in connection to the *learner*  
 588 *identity* of musicians, students and teachers alike—a type of growth mindset that  
 589 can help them to engage with the pedagogical agility towards the topics presented  
 590 across this chapter, and which is being required of teachers in the second quarter  
 591 of the twenty-first century. Furthermore, as was discussed in Chapter “Learning  
 592 and Teaching Music in the Twenty-First Century”, musicians need to be aware of  
 593 their employability possibilities. This, in a world that has becoming increasingly  
 594 “complex and disorganised” (Bennett, 2016, p. 112) but also diverse, and where job  
 595 opportunities require much more from instrumental music educators than has ever  
 596 been required. Beyond their skills as professional instrumentalists, they will have  
 597 to adopt a variety of professional roles in the music area (Burnard, 2014). It is our  
 598 hope that this chapter offers some research-and experience-based ideas for the further  
 599 development and strengthening of those professional roles for instrumental music  
 600 teachers and musicians alike.

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839 **Amalia Casas-Mas** has a Doctorate in Psychology from the Universidad Autónoma de Madrid  
840 and a postgraduate degree in piano performance from the Franz Liszt Academy of Budapest.  
841 Her research has focused on different musical learning cultures, on formal and informal contexts,  
842 and on flamenco music in oral tradition communities. She is a researcher from the Interdisci-  
843 plinary Seminary on Learning and Educational Change (SEIACE) of the Universidad Autónoma  
844 de Madrid and from the group of Studies on Communication and Languages for Inclusion and  
845 Educational Equity (ECOLE) at the Universidad Complutense de Madrid. Currently she is a  
846 Full-Time Assistant Professor of Education at the latter, after developing an extensive teaching  
847 career in psychology, educational sociology and musical didactics in higher artistic educational  
848 institutions and universities.

849 **Guadalupe López-Íñiguez** has a Doctorate in Psychology from the Universidad Autónoma de  
850 Madrid and is a cellist specialized in historical performance practice. She is Associate Professor  
851 of Music Education at the Sibelius Academy, University of the Arts Helsinki, Finland. Guadalupe  
852 has led or participated in competitive research projects (e.g., I+D+i, Finnish Academy, Erasmus+)  
853 related to the study of psychological processes inherent in music learning and teaching, the optimi-  
854 sation of interpretation, life-long learning and employability, musical identities and learner iden-  
855 tities, giftedness and talent, and the theories of emotion. Guadalupe regularly gives concerts as  
856 a soloist and chamber musician, and has recorded the complete works of Gabrielli, Scarlatti and  
857 Mendelssohn for cello.