

GUITAR TEACHING: STATE OF THE ART AND RESEARCH QUESTIONS

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Abstract. *This work reviews guitar methodologies and didactic materials from the first 16th century methods of guitar and vihuela to the software/hardware devices patented now-a-days. One of the richest sources for guitar education research are master classes registered since the last 50-100 years and available today to the researcher. A set of 12 master classes are analysed in this study. Fundamental decisions for the education and practice of the guitar are highlighted as the fingernails vs. yolks playing, “learning by music” vs. “learning by ear”, the use of music vs. tablature notation or the autodidactic way vs. the teacher-student interaction in class. Despite the successful new devices and advances in software and hardware, literature review reveals the importance of the teacher and the classical methods.*

Keywords: *guitar education, guitar teaching, guitar learning, guitar master classes, software/hardware devices for guitar learning, state of art.*

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(The one who plays the guitar has to figure out that the right hand is the Chapel Master and the left hand fingers the voices directed by him).

Joan Carles y Amat

Introduction

Focusing on such a universal and developed instrument as the guitar leads to deal with many different instruments in one. Guitar is the instrument where more authors and peoples have found their ways for musical and cultural expression. Electric guitar and the genders associated to it (rock, jazz, heavy, blues,...) differs completely to classical guitar in techniques, performance and context, and this one to flamenco guitar.

They share though many teaching principles and methodologies. This research explores such principles and methodologies through the different didactics the history of guitar teaching has developed from the first vihuela and guitar methods during the 16th century to the latest technologies applied to make easier the process to learn how to play the instrument and make distance music education more effective.

For this aim, the methodology includes the text and discourse analysis on guitar treaties and methods, the analysis of recorded tet-a-tet master classes and of guitar lessons and advices directed to the internet public. From the bibliographical and audiovisual analysis some relevant research questions arise that will be enlisted and commented.

Now-a-days, patents and devices proliferate to join software and hardware in the learning processes, creating or transforming self-learning tools as cyborg-guitars, that light up on the neck of the guitar to show the player the location of the next note to play. Music sheets unfold in the screen playing the piece at our desired set speed. Sensors and artificial intelligence ally to watch and evaluate the movements of the hands.

Information and Communication Technologies (ICT) also allow us to access recorded master class and analyse the rich complexity of the face to face human interaction. Showing different teaching styles, guitar masters share some common fundamentals and recommendations.

The state of the art rises relevant questions and discussions about the advantages or disadvantages in the different methodologies and learning frameworks. To better evaluate them, it is important define or characterize the concepts of guitar education, interpretation and assessment themselves.

State of the art on guitar teaching technologies

There is an emergent research line that grow up in number of scientific publications and patents dealing with new technologies applied to guitar learning. One of the most popular is *Fretlight*, an augmented reality guitar learning system backed up by international research (Keebler et al., 2014), patented and commercialized in partnership with the software *Guitar Pro*. Words from verified buyers are eloquent about the system:

"I've been a musician for decades. Someone please tell me why a guitarist wouldn't want tabs playing solos, riffs, arpeggio's, scales, modes, and chords playing right on the neck of their guitar? This is an unbelievable tool..." (Jim & Allegany, <https://fretlight.com/>)

Research and testing with this systems rises important questions about current theories of embodied music cognition, embodied music technology for learning. This system aims to allow the guitar learner in an instrumental self-extension, to be free from externalizations (sheet music, tablature, chord diagrams, books, audio files and instructors). Keebler et al. (2014) argue that the system “may help to mitigate initial barriers to learning an instrument by reducing the need for a transformational process between external representation (e.g., tablature) and the instrument itself” and also may produce a better long term retention for the learned information.

Body vs brain is a way to explain the cognizing/learning processes that shares the theories that back up Fretlight as well as the experience of great masters: “the pulsation is something that you cannot feel in your brain, pulsation is more in the body, the rhythm is more body than only the brain.” (Steidl, 2018)

Pioneering the assessment of such kind of systems, Kebler et al. (2014), test Fretlight and compare learning results with traditional methods, assessing after some lessons the learned results by some basic variables to test students’ performance: scale note quality, errors, inconsistency between notes and fluency as a time-dependent measure of inconsistency between notes and total scale time.

Other studies that have used include the former in note correctness, rhythmic precision, and attending to the complexity of music performance, add other performance indicators as confidence, expression, relaxation and posture, tone quality, synchronization between the hands (Apro & Siebenaler, 2016). These authors have done controlled comparative analysis between learning to play by reading or “by ear”. Although they compare progression on a concrete work of two groups of “music readers” and “ear players”, proving a higher progression in the latest, they also claim that both methods do not have to be opposed but complementary. For some pedagogues there should be an order in this complementarity, ‘sound before symbol’ has historically claimed educators as Johann Pestalozzi (1746-1827), Lowell Mason and more recently Shinichi Suzuki (1898-1998) comparing learning music to learning language or the “mother tongue,” through repeated modelling, listening, imitation, and repetition. (Apro & Siebenaler, 2016)

There are relevant analysis on teaching styles and methods in national contexts, as the study of Scarduelli and Fiorini (2015) that surveys from a relevant sample the influences in Brazilian guitar university professors. This study shows some authors and methods wide influence as the “Série didática para guitarra (1966)” by Abel Carlevaro (cited 16 times in the survey), “Escuela Razonada de la Guitarra” by Emilio Pujol (cited 6 times), “Studio per la Chitarra Op.1” by Mauro Giuliani (5 times) and Pumping Nylon by Scott Tennant (4 times). This survey demonstrates that, even though technologies are creating everyday new software-hardware combined solutions to support guitar teaching and learning, and “knowledge of the psychology of student development and learning has become more sophisticated in its ability to provide an intelligent and informed context for guitar teaching decision-making”, old classical methods are the most used at the present.

There are also authors standing by the teacher-student interaction, highlighting the teacher personality and his/her ability to motivate and “translate good judgement, experience and wisdom into the art of playing guitar” (Risteski, 2006)

Certainly, “learning a popular-musical instrument, like the guitar, is an experience often accompanied by very informal learning processes” (Keebler et al., 2014), but this processes are also taken in account, considered and taught. This happens for example in the flamenco guitar methods, like the one by Rafael Marín (1902) in which interactions with the singer and the dancer are also explained and recommended for the proper process of flamenco guitar learning. (Calahorro Arjona, 2017)

Methodology

To deepen in the guitar teaching and learning state of the art, the research has analysed different relevant sources:

- scientific publications on the evolution of the guitar and the guitar education,
- guitar methods and treaties from the 16th to the 21st century,
- recorded master classes where the guitar master counsels a student based on a specific work (see table 1). This is quite a recent available resource for researching,
- master classes where the guitar master is alone talking and teaching to a distance audience (see Table 1),
- In-depth interviews to guitar players.

Table 1 Analysed Guitar Master Classes

Master	Context	Date and place	Retrieved from
Zoran Dukic	Moscu International Festival “Guitar Virtuosi” 2018	March 22, 2018 Bashmet Center Cameras: Konstantin Neklyudov, Dmitry Smirnov (Guitar Magazine)	https://www.youtube.com/watch?v=Cgc2JpqbGx0
Zoran Dukic	Moscu International Festival “Guitar Virtuosi” 2018	March 22, 2018 Bashmet Center Cameras: Konstantin Neklyudov, Dmitry Smirnov (Guitar Magazine)	https://www.youtube.com/watch?v=11gY2XuBGK0
Zoran Dukic	VI Festival Internacional de Guitarra Sinaloa 2016	March 09 2016 Bashmet Center Cameras: Konstantin Neklyudov, Dmitry Smirnov (Guitar Magazine)	https://www.youtube.com/watch?v=FOM2TJqZ3Ik
José Antonio Escobar	Moscu International Festival “Guitar Virtuosi” 2017	March 21st, 2017 Moscow © 2017, Guitar Magazine Camera: Konstantin Neklyudov, Dmitry Smirnoff	https://www.youtube.com/watch?v=nu5kN2WSX2k
Pablo Sainz Villegas	Marylhurst University near Portland OR	Sat, January 21, 2017.	https://www.youtube.com/watch?v=ctAMIJZfVVc
Julian Bream	Julian Bream’s House	First Broadcast: 11 Jan 1978	https://www.youtube.com/watch?v=iAXUzIrukt0

	(BBC programme)		
Fabio Zanon	Moscu International Festival "Guitar Virtuosi" 2017	March 21st, 2017 Camera: Konstantin Neklyudov, Dmitry Smirnoff	https://www.youtube.com/watch?v=eIwvqDShVuk
Fabio Zanon	Moscu International Festival "Guitar Virtuosi" 2017	March 21st, 2017 Camera: Konstantin Neklyudov, Dmitry Smirnoff	https://www.youtube.com/watch?v=eIwvqDShVuk&t=1059s
Ana Vidovic	Zuidlaren Guitar Festival, 2009	Zuidlaren Guitar Festival	https://www.youtube.com/watch?v=QAf55G8OEDs
Ana Vidovic	Brussels International Guitar Festival, 2013	Brussels, 19 may. 2013	https://www.youtube.com/watch?v=kBqL79d1swk
Pavel Steidl	Moscu International Festival "Guitar Virtuosi" 2018	March 22, 2018 Bashmet Center	https://www.youtube.com/watch?v=k1dcS9vqGMU
Pavel Steidl	Royal Conservatoire of Scotland.	Royal Conservatoire of Scotland.	https://www.youtube.com/watch?v=MTzq_qdYItg

Research results

Guitar education from the 16th century first methods to the present incorporation of new technologies and ICT has evolved greatly. Although in the first method of vihuela by Luis Millán (1570) numeric tablature was advanced, the first printed guitar methods had very general, short, imprecise explanations commenting a set of pieces gradually more difficult for the beginner.

In the first known method for (vihuela de mano), published in Spanish and Valenciá entitled *The Teacher*, for "it develops the same style and order that a teacher would follow with his beginner pupil: showing him in order from the beginning everything that he needs to understand this method".

The first book is for beginners and therefore it contains easy music corresponding to the hands that a beginner may have. And offering him easy music in the beginning he will be happy with what he is doing and everything will look easy for him. (Luys Milán, 1536)

El primer libro es para principiantes y assí tiene la música fácil y conforme a las manos que un principiante puede tener (...) Y dándole a los principios música fácil; contentarle ha delo que haze; y todo le parecera fácil."

Guitar masters in the 16th and 17th centuries tried to do their best translating their knowledge and pedagogical skills to the printed method, but besides the conventional music transcriptions (numeric by the time) they used their very own language and ideas to express the nuances and expression for each piece. Joan Carles y Amat (1596), for example, express that the "air" (the dynamic level) goes along the tone:

About the air which the pieces must be plaid, there are no rules to stay, for the tone itself carries it: if it is proportionated, may [the air] be proportionated; if [the tone] is major or minor, may the air be major or minor, and so on. The one who plays the guitar has to

figure out that the right hand is the Chapel Master and the left hand fingers the voices directed by him.

“Del ayre con que se ha de tocar, no pueden darse reglas, pues el mismo tono lo lleva: si es de proporción, sea también de proporción; si es mayor ò menor, sea el ayre mayor ó menor, y asi en los demás. Ha de hacer cuenta el que toca la Guitarra, que la mano derecha es el Maestro de capilla, y los dedos de la mano izquierda las voces regidas y gobernadas por él; y la misma práctica y exercicio enseñarán á los principiantes á que pongan en execucion lo que se percibe con el sentido.” (p.34)

Since then, guitar education methodologies and technologies have become more complex to make learning easier. ICT have facilitated distant learning, enlarging the impact of professors and masters. Software and hardware development have resulted in self-learning tools that are highly valued by beginners and by advanced players.

Some of this new learning technologies are based on embodiment cognition theories and processes, claiming a more effective short term learning and long term retention. More studies will be needed to confirm the role of memory and retention capacity in one method or other.

Some authors stay clearly that now-a-days “even though a huge amount of learning material exists, it is still hard to learn especially without a guitar teacher”. (Löchtefeld, Gehring, Jung, & Krüger, 2011).

Master classes analysis allow us to make a series of considerations relevant to guitar education:

- Guitar masters correct body and hand postures and movements, the music sheet and fingering and give technical and rhythmical advices. They are able to detect three or more errors/problems in a phrase.
- Guitar masters question digitation, contained in music sheets freely obtained in internet but does not know from who nor have listened to the piece from the guitar player who decided that digitation and advocates for music sheets without digitations.
- They highlight the musical and emotional character of the piece and refer to advices from other musicians from piano, opera, chant, (as Palestrina’s principle “If you repeat something more than three times you need to change the tempo”).
- Guitar masters deal with guitar as with whole orchestras, taking the most out of the instrument. Singing while playing the piece, deconstructing it, exploring different ways to deal with it.

Conclusions and/or recommendations

There are great decisions in the guitar learning processes and history that have been often taken as substituting and excluding as fingernail vs. yolk or tablature vs. music transcription.

Francisco Tárrega (1852-1909) and Emilio Pujol (1886-1980), great Spanish guitar masters, played and backed up tipping the strings with the yolk but they have been a minority among guitar masters.

Indeed one of the important decisions to teach and learn guitar is to use or not musical notation. Tablature may be a much easier and quicker way to learn to play guitar but closes the door to the rich interconnections and translations in the whole spectrum of music.

For guitar learners, that look after real progress in the instrument –whether they play or not professionally and learn or not in professional schools- what it is not substitutory now-a-days is a personal teacher that can introduce the student in more subtle dimensions of guitar playing and music, that those allowed in distance learning and software/hardware devices.

But Information and Communication Technologies (ICT) can really give access (open access) to all the accumulated methodologies and materials since the 16th century, being especially interesting for guitar learning processes have access to new multimedia combinations that improve all aspects of teaching and learning processes.

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