

# ARTS EQUAL

Toolkit for Instrumental  
Music Teachers in Finland

## **Promoting Constructivist Instrumental Music Education as a Mechanism for Pedagogical Equality**

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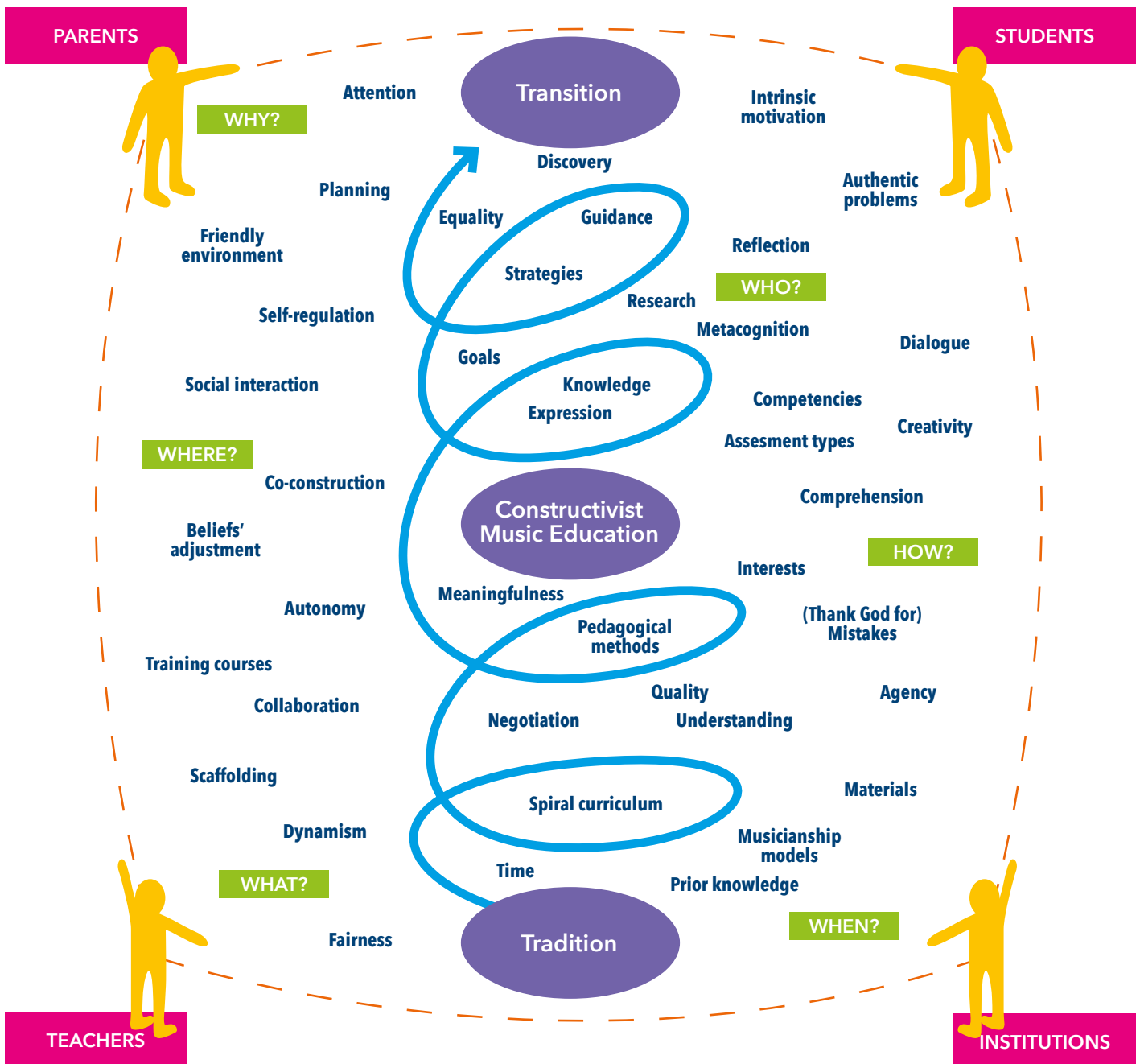
## Introduction

This toolkit provides information about relevant research on constructivist<sup>1</sup> instrumental music teaching and learning, and offers suggestions for teachers on how to enact pedagogical equality through putting constructivist theories into practice.

<sup>1</sup> Constructivism, as a learning theory, is based on observation and scientific study about how individuals learn, and emphasizes the assumption that people construct their own understanding and knowledge of the world enhanced by social interaction, through experiencing authentic and stimulating activities, reflecting on those experiences, and building new learning on prior knowledge (e.g. Bereiter, 1994; Good & Brophy, 1994). Thus, the term constructivist refers here to the overall comprehensive, co-constructed integration of multidimensional aspects presented in this document (see Graphic 1).

Constructivist ideals are embedded in the new national core curricula for Basic Education in the Arts, which will come into effect in 2018. This implies that instrumental music students at all levels of instruction should be offered comprehensive, flexible, and tailored lessons that fully connect with their own interests and individual personalities. The purpose of instrumental music education should support personal thinking, autonomy, and the artistic identity of every student. In doing so, we may lay the groundwork for pedagogical equality.

Graphic 1: Spiral of constructivist instrumental music education



## Recommendation

As suggested in the Finnish national core curricula for Basic Education in the Arts<sup>2</sup>, teaching and learning in instrumental music education should be learner-centered instead of subject-centered.<sup>3</sup> Learner-centered approaches to instrumental music instruction lead to comprehensive education that acknowledges music students' capacity to express their unique insights and experiences, thus achieving personal growth, complex meanings and understandings<sup>4</sup>, providing equal learning possibilities for all.

Instrumental music teaching should aim towards broad educational goals, including the development of imagination, self-expression, autonomous thinking and action, and creativity. It should not be based solely on the transmission of pre-existing knowledge through imitation or reproduction of pre-defined narrow models. Thus, technical proficiency should be viewed as a means of realizing musical intentions, rather than the end goal of musical education in itself.

In this regard, research in the field of instrumental music teaching and learning has acknowledged that instrumental teachers conceive of instrumental music teaching and learning in very different ways.<sup>5</sup> Thus, current scholarship has identified three positions in a hierarchical continuum—from more teacher-centered to more learner-centered. These include: 1) traditional (direct) teaching-learning; 2) interpretive teaching-learning; and 3) constructive teaching-learning<sup>6</sup>. This means that instrumental music teachers' views of teaching and learning may be positioned wholly within one of these categories, or be a more complex combination of approaches, depending on their needs and teaching-learning conditions.

Constructivist, learner-centered principles have been seen to be linked to the cultivation of creative, participatory, autonomous, intrinsically motivated, and self-regulated music students.<sup>7</sup> On the contrary, teacher-centered instrumental

teaching<sup>8</sup> has been related to a lack of student motivation, creating highly dependent music learners and future professional musicians who focus exclusively on responding to teachers' instructions. Considering these differences between the most extreme teaching and learning approaches—the *constructivist* and the *traditional*—in instrumental music education, this toolkit recommends applying constructivist principles in order to work towards meaningful, comprehensive musicianship, and a more equal balance between the roles of teachers and students.

## Key principles for constructivist instrumental music teaching

Instrumental teaching that aims towards fostering comprehensive, holistic musicianship should consider the following central questions: *What* to teach and learn, *why* to teach and learn, and *how* to teach and learn?

### WHAT to teach and learn constructively

The goals of teaching and learning should be established collaboratively between the teacher and the student. Teaching should encourage music students to express their thoughts and individual voices. The goals for teaching and learning should be framed within 1) learners' motivation (that is, intrinsic desires to play and learn that come from within, such as enjoying a specific learning activity), 2) metacognition (learning to learn), and 3) realistic capabilities (the zone of proximal development).<sup>9</sup> Teachers should be aware of their own strengths and limitations, and strive for continuous learning. Teachers should continuously seek new ways of working that are tailored to individual student needs. In addition to achieving *results*, the focus should be on the learning *processes* and necessary *conditions*.

According to research in the field of instrumental music instruction,<sup>10</sup> *results* could include, for example, stage presence, psychomotricity, sound production, different levels of conceptual understanding of the musical score, or expression; *processes* would be strongly linked to cognition (e.g. memory with transfer, meaningful learning, mental representation) or motivation (e.g. intrinsic and extrinsic motivation, attributions and eval-

2 See FNBE (2017).

3 It could be considered that learning to play a musical instrument according to the typical Western model of practice is sometimes characterized by the specific goal of achieving technical mastery on a particular instrument. Learning an instrument is thus regarded as training in the sense of acquiring specific musical behaviours, involving the transmission of musical skills from a teacher who "knows everything" to a student who "knows nothing", therefore making music classrooms as spaces for inequality.

4 e.g. Finney (2011); Garnett (2013); López-Íñiguez and Pozo (2016).

5 e.g. Bautista, Pérez Echeverría, and Pozo (2010); López-Íñiguez, Pozo, and de Dios (2014).

6 According to their psychological assumptions (see López-Íñiguez & Pozo, 2014a), the *traditional* approach claims that there is a direct causal relationship between teaching conditions and the desired outcome, therefore the role of the teacher is to expose the student to learning contents as clearly as possible using a one-directional monologue. The *interpretative* approach is a more complex version of the *traditional* one, as the teacher's role is to regulate externally the mental and motor procedures of the student—whose role is active and reproductive—to achieve technical mastery of the music material. The *constructive* approach (close to the constructivism defended in instructional science) contrasts radically with the claims of the other two positions as the student learns through the activation, stimulation, and development of his or her own mental processes through reflection and guidance from the teacher.

7 López-Íñiguez and Pozo (2014a, 2014b, 2016).

8 López-Íñiguez and Pozo (2014a, 2014b) reported that what teachers do in the instrumental music classroom has very strong effects on what their students do. Strings students exposed to a constructivist teaching approach conceived of their teachers as guides who helped and encouraged them, seeing errors as potential tools for learning. These students were autonomous, reflexive, and intrinsically motivated, and focused on the quality of practice, learning to learn, and understanding the music meaning making through complex cognitive processes. On the other hand, students studying in a more traditional environment described their teachers as greater hierarchies who were in charge of giving orders, and correcting mistakes immediately. These students were extrinsically motivated, did not have much autonomy, and showed great dependence on their teachers' feedback, modelling, and instructions. These students thought learning was only meaningful when passing exams via repetitive practice aimed at achieving perfect psychomotor skills, for the exact reproduction of the music score.

9 i.e. Vygotsky (1978).

10 López-Íñiguez and Pozo (2016), after Pozo (2008).

uation), and *conditions* would refer to different types of actions carried out by teacher and/or student (e.g. explaining, giving orders and instructions), type of materials and classroom activities (e.g. tuning the instrument, using different methods, playing or talking), and what type of participation and interaction organizes all of this (e.g. teacher and student collaboratively concluding a task, only teacher and leaving a task unconcluded).

### HOW to teach and learn constructively

Constructivist instrumental tuition aiming towards the holistic growth of the student, takes into account students' agency and

autonomy, interests, motivations, capabilities, creativity, equality, expression, skills, backgrounds, and beliefs. Constructivist instruction should not only focus on student-centered learning, but regard learner-centeredness from a wider perspective, which means, for example, that teachers also learn from students and that they both improve together. This means that progress is a shared responsibility.<sup>11</sup> For this to happen, teachers should take the following actions:

#### 1) Considering the process of teaching and learning, the teacher should:

- Approach learning as a search for **personal meanings**. Any meaningful learning requires an understanding of both the whole phenomena, as well as smaller fragments of the process. This learning is embedded in a **rich 'authentic' dynamic problem-solving environment**. In this regard, teachers need to analyze which **competencies** and **skills** are needed in problem-solving activities.
- Plan and set goals and objectives in **negotiation and collaboration** with students.
- Ask always **"why"** something is done in a specific way, and **"how"** it could be done differently.
- Direct learning towards student's **intrinsic** sources of motivation (where the process of learning itself is a goal) rather than extrinsic. Teachers should critically rethink the role of entrance exams, graded music exams, test scores, music competitions, or rewards that aim to motivate students from the outside. At worst, such activities can lead to 1) superficial thinking and standardized performance; 2) diminishing students' interest to learn; 3) reducing opportunities for personal expression; and 4) negatively affecting the quality of career paths, the freedom for career choices, and the overall health and wellbeing of individuals.
- Encourage the **expression of musical ideas** in open and creative ways.
- Enhance learning through **social interaction** due to its richness of alternative viewpoints. A constructive, holistic process works best when parents, peers, teachers, students, and institutional agents participate.
- Establish a **multidimensional environment** for conversation and interaction: The physical makeup of the classroom, the kinds of equipment, the timing of lessons, and the richness and variety of the materials should help monitoring student progress and understanding. Such thoughtful and well-planned environments help students to focus and be motivated.
- Find out what students know already, as new learning builds on **prior knowledge**, in making an effort to make sense of information.
- Nurture **creativity** through such processes as songwriting, improvising, arranging, and technology use, as well as singing, dancing, or moving as regulatory processes in the arts.
- Provide opportunities for **discovery learning** without reducing all teaching and learning to those parameters. In the same line, encourage exploration, observation, curiosity, and investigation in game-related content and settings. Give students space to create and reassemble knowledge through such explorations and interactions with the world.
- **Cognitive conflict** should not be avoided since it can lead to learning in unique ways.<sup>12</sup> To deal with cognitive conflict in productive ways, teaching and learning goals, processes, conditions, and results should resonate with the intrinsic motivation of each learner, always aiming at offering equal learning opportunities for all.
- Use students' **naïve beliefs** about teaching and learning as a starting point for further discussion, exploration, and evaluation for development, rather than labelling them as "wrong".
- Learn to **assess both teaching and learning collaboratively with peers and students**. Assessment practices should be understood as self-analysis tools, rather than a tool for assigning marks or grades. Assessment should be interwoven with teaching and learning practices emphasizing more the processes than the results of learning (formative assessment).

11 Milbrandt, Felts, Richards, and Abghari (2004).

12 D'Angelo, Touchman, and Clark (2009).

## 2) Considering learner autonomy, the teacher should:

- Create confusion and challenge students' (and teachers') pre-suppositions, and **see mistakes as potential tools for learning**, reflexivity, and insights into students' previous knowledge constructions. Errors can be mechanisms to provide feedback on learners' understanding and on their processes of learning.
- Offer opportunities to foster **metacognition**: learning how to learn, progressively developing skills in **self-analysis, -regulation, -reflection, and -awareness**, in order to overcome student dependencies on feedback, monitoring, and unhealthy competition. Self-regulated learning can help students avoid learning that is merely experiential or a result of pure discovery—a common misconception about constructivist pedagogies.<sup>13</sup>
- Provide a **rich variety of models of musicianship** in order to develop crucial skills such as self-managership, enterprise, transdisciplinarity, critical reflection, learning to learn, or creativity within the arts field. Students should be exposed to a broad range of professional artists through concerts or courses. They should observe and participate in a variety of aesthetic experiences to **stimulate and enrich their interests and achievements in the arts**.
- Provide **scaffolding** for learning through a broad range of strategies. It is important to note that musical and academic knowledge can be transferred via mental representations (mental ideas/images with semantic properties) from one activity to more complex and related ones. This integration process is important because it enables students to understand how different musical encounters relate to one another and how each contributes to their developing relationship with, and knowledge of, music.
- Provide larger amounts of **solo and ensemble performing opportunities**: Support the idea of **the music classroom as a laboratory** in which students function as real musicians, regardless of their technical proficiency, by providing spaces for preparation for public performance, and enhancing musical communication, networking, and interpersonal skills.

## 3) Considering the process of teacher development, teachers should:

- Conduct and **read research, document practices and thoughts** (taking time to critically reflect on research, teaching practice, and ideas).
- Design activities that involve curriculum planning, and use the opportunity to build the curriculum in line with the idea of a **spiral curriculum** where learning is revised and adapted periodically according to the needs and capabilities of learners.
- **Exchange knowledge and experiences** with peers and experts in order to become a reflective teacher: Look for possibilities for teacher observations of your students, or let other teachers observe you while teaching, in order to develop **reflexivity and teaching strategies**.
- Reflect on **teaching experience** in relation to teaching ideas and practices, as early career instrumental teachers may have newer, more complex ideas according to the constructivist trends in current curricular reforms and educational programs, but they might also have less experience in putting them into practice. More experienced teachers should attend **reformist in-service training courses**, as these provide opportunities to learn rich strategies, and innovative teaching-learning approaches.<sup>14</sup>
- Reflect upon or **design teaching methods** according to all of the principles presented in this toolkit.

13 See López-Íñiguez (2017).

14 See López-Íñiguez, Pozo, and de Dios (2014).

## Conclusion

The constructivist approach to instrumental music education is meant to be descriptive and unpredictable rather than prescriptive, as it respects the plurality of learning views existing among instrumental music teachers. Building upon all of the factors listed above should construct holistic and artistic images, in thinking about what should be performed.<sup>15</sup> Teaching and learning according to the principles described above should take into account established traditions (history, legacy, rules

of each instrumental discipline) but also look towards more transitional viewpoints (creating new knowledge, expanding music practices and understanding, shaping individual and collective choices). Teachers and learners at all levels of art education should understand that we teach and learn in order to preserve, promote, and regenerate artistic knowledge and create artistic experiences, respecting the tradition of each artistic discipline, but aiming to transcend it.

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15 Brooks and Brooks (2001); Chaffin, Imreh, Lemieux, and Chen (2003).

## Further information

In Finland, the shift from teaching to learning took place through educational reforms to the general curriculum in the 1970s, with constructivism positioned as the new paradigm of learning. Putting these ideas into practice, significant efforts were made by educational agents during the following two decades, leading to the progressive development of Finland's comprehensive schooling system.<sup>16</sup> This system aimed at realizing a democratic, comprehensive education for all young people, responding to the educational needs connected to the radical economic and cultural transformation that Finland experienced at the time.<sup>17</sup>

In the Finnish national core curricula for Basic Education in the Arts, student-centered approaches to education have become predominant as a result of a slow but steady reform process. In 2002, the concept of "a good relationship to music" [*hyvä musiikkisuhde*]<sup>18</sup>—strongly connected to the main principle of Finnish child legislation of "the child's best interests", and based on inner motivation and personal meaning-making when experiencing music—was included in the national core curriculum for the first time.<sup>19</sup> The new core curricula for Basic Education in the Arts in Finland follow the same ideal.<sup>20</sup>

However, despite these efforts, there is little evidence to state that constructivist approaches to teaching and learning in Finland have resulted in a shift from teacher to learner centeredness in instrumental music teaching practices or other ed-

ucational settings. This claim is supported by research studies stating that the constructivist theory itself is accurate but the pedagogical practices do not necessarily follow.<sup>21</sup> This may be because it is difficult for teachers to change their conceptual views of learning, and therefore, to transform their classroom practices.<sup>22</sup> It is also possible that the strong presence of the master-apprenticeship tradition in one-to-one instrumental music teaching and learning has influenced music teachers to maintain an authoritarian teacher-student relationship.<sup>23</sup>

As a consequence, the following questions remain relevant in different educational settings related to instrumental music in Finland and elsewhere: Does the idea of having a "good relationship to music" effect teaching practices, and if so, in what ways? Is it possible that the learner-centered approach enhances democracy within the teacher-student relationship without necessarily making teaching and learning more constructive? How are constructivist approaches to teaching and learning experienced by students?

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21 Hattie (2009); Kirschner, Sweller, and Clark (2006).

22 For an overview, see Vosniadou (2013).

23 According to Simola (2005, p. 457) the geographical location of Finland between the east and the west could give 'some eastern authoritarian, or even totalitarian, flavour' to its democracy skills. In addition, Broman-Kananen (2005) argued that the reformist views of music education present during the long-term development of Finnish music schools till the 2000s might have not been necessarily compatible with the practices of music teachers at the time. This mismatch could have resulted in a process of personal reflection by teachers in relation to their professional identities (what she calls "a me-project", p. 186). By reflecting on their teaching practices against the reformist views, teachers could gradually achieve a conceptual change (in the line of Vosniadou, 2013) towards constructivist principles that could eventually lead to more constructive teaching practices.

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16 For an overview, see Aho, Pitkanen, and Sahlberg (2006).

17 e.g. Simola (2005); OECD (2010).

18 The concept was introduced by Kurkela (1993, 1995a, 1995b, 1997).

19 For an overview, see Björk (2016) and Heimonen (2002).

20 See FNBE (2017).



## Author

Dr. Guadalupe López-Íñiguez is a Spanish scholar-musician living in Helsinki. Her PhD in Psychology examined the psychological processes involved in acquiring musical knowledge among string instrument players, teachers and students from constructivist perspectives. Her current artistic and scientific research project at the Sibelius Academy, funded by the Kone Foundation, is on Beethoven's and Mendelssohn's cello works. She has published in international peer-reviewed journals and works as a cello performer and recording artist.

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Photo: Erica Nyholm

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